






# LIST OF ITU-T RECOMMENDATIONS

Edition 2004-1

## TABLE OF CONTENTS

	Page
Introduction .....	3
Legend .....	4
List of ITU-T Recommendations in force .....	5
Mapping of ISO/IEC Standards to ITU-T Recommendations and ITU-T Recommendations to ISO/IEC Standards .....	195
Transferred ITU-R CMTT Recommendations to ITU-T J-Series .....	199
List of ITU-T Handbooks .....	201
List of ITU-T Software Packages .....	203
List of ITU-T Test Charts .....	209
Other ITU-T products .....	210
Sales and Distribution .....	214
ITU Electronic Bookshop  .....	215
ITU-T Recommendations Online .....	216
General conditions of sale .....	217
Order Form .....	219

---

### NOTE

For the latest, most up-to-date information, please consult the ITU-T website at the following address:

**[www.itu.int/ITU-T/publications](http://www.itu.int/ITU-T/publications)**

ITU publications can be found under: **[www.itu.int/publications](http://www.itu.int/publications)**

© ITU 2004

All rights reserved. No part of this publication may be reproduced, by any means whatsoever, without the prior written permission of ITU.

**International Telecommunication Union**

Place des Nations  
CH-1211 Geneva 20  
Switzerland

Telephone: + 41 22 730 51 11  
Telefax: + 41 22 733 72 56  
Telex: 421000 uit ch  
Telegram: ITU GENEVE  
E-mail: [itumail@itu.int](mailto:itumail@itu.int)  
Web: [www.itu.int/](http://www.itu.int/)

**ITU-T****Telecommunication Standardization Bureau**

Place des Nations  
CH-1211 Geneva 20  
Switzerland

Telephone: + 41 22 730 58 52  
Telefax: + 41 22 730 58 53  
E-mail: [tsbmail@itu.int](mailto:tsbmail@itu.int)  
Electronic document handling: [tsbedh@itu.int](mailto:tsbedh@itu.int)  
Web: [www.itu.int/itu-t](http://www.itu.int/itu-t)

**International Telecommunication Union**

Sales and Marketing Division  
Place des Nations  
CH-1211 Geneva 20  
Switzerland

Telephone: + 41 22 730 61 41 (English)  
+ 41 22 730 61 42 (Français)  
+ 41 22 730 61 43 (Español)  
Telefax: + 41 22 730 51 94  
Telex: 421000 uit ch  
E-mail: [sales@itu.int](mailto:sales@itu.int)  
Web: [www.itu.int/publications](http://www.itu.int/publications)

**The bookshop is open at the ITU Headquarters (Tower Building) in Geneva  
from 8h30 to 12h00 and from 13h30 to 17h00, Monday to Friday.**

# INTRODUCTION

The main purpose of this List is to indicate all the ITU-T (formerly CCITT) Recommendations currently in effect at the date of its publication. In addition, the ITU-T Supplements which contain operational or other practical/implementation type of information related to a particular Series of Recommendations are listed at the end of that Series in the List.

Until 1990, (former) CCITT Recommendations were grouped for publication in fascicles of the CCITT Books. Since 1990, CCITT/ITU-T Recommendations have been published as individual booklets.

It should be noted that there is provision, within established ITU budgets, for translation of a number of ITU-T Recommendations into Arabic, Chinese and Russian. The choice of which Recommendations are translated is established in collaboration with the principal ITU Member Countries involved. Readers interested in such language versions should get in touch with ITU Sales and Marketing Division at the address provided in this List.

New Recommendations which are currently in the process of publication are noted as “To be published”. At the date when a Recommendation is approved, there remain several steps in preparing and printing the texts so the actual publication date for these Recommendations is necessarily different from the approval date. When an electronic version of a recently-approved Recommendation becomes available the text is pre-published and can be downloaded (see the ITU Electronic Bookshop, page 215). Pre-published and superseded ITU-T Recommendations are now also available via the yearly online subscription service and the Electronic Bookshop.

When an ITU-T Recommendation is accompanied by addenda (Add.), amendments (Amd.) and/or corrigenda (Cor.), all documents should be purchased in order to have the complete information. All Series A Recommendations and the corrigenda may be downloaded for free from the ITU Website.

A few Recommendations include software written specifically to help customers, telecommunications service operators or manufacturers to test equipment, systems or networks. There is a list of available software on page 203.

Other Recommendations describe test charts intended to test graphic communication systems. Test charts of special quality with different resolutions may be ordered separately from the ITU Sales Service, since the specimens reproduced in those Recommendations are generally not suited for measurements. The available test charts are listed on page 209.

While most of the foregoing applies to printed paper copies of ITU-T Recommendations, the same Recommendations are available electronically through the ITU Electronic Bookshop, the ITU-T Recommendations Online and ITU-T Recommendations on DVD-ROM\*. More detailed information about these products and how to order them is provided at the end of this List. For forthcoming publications, please refer regularly to the Web: **[www.itu.int/publications](http://www.itu.int/publications)**.

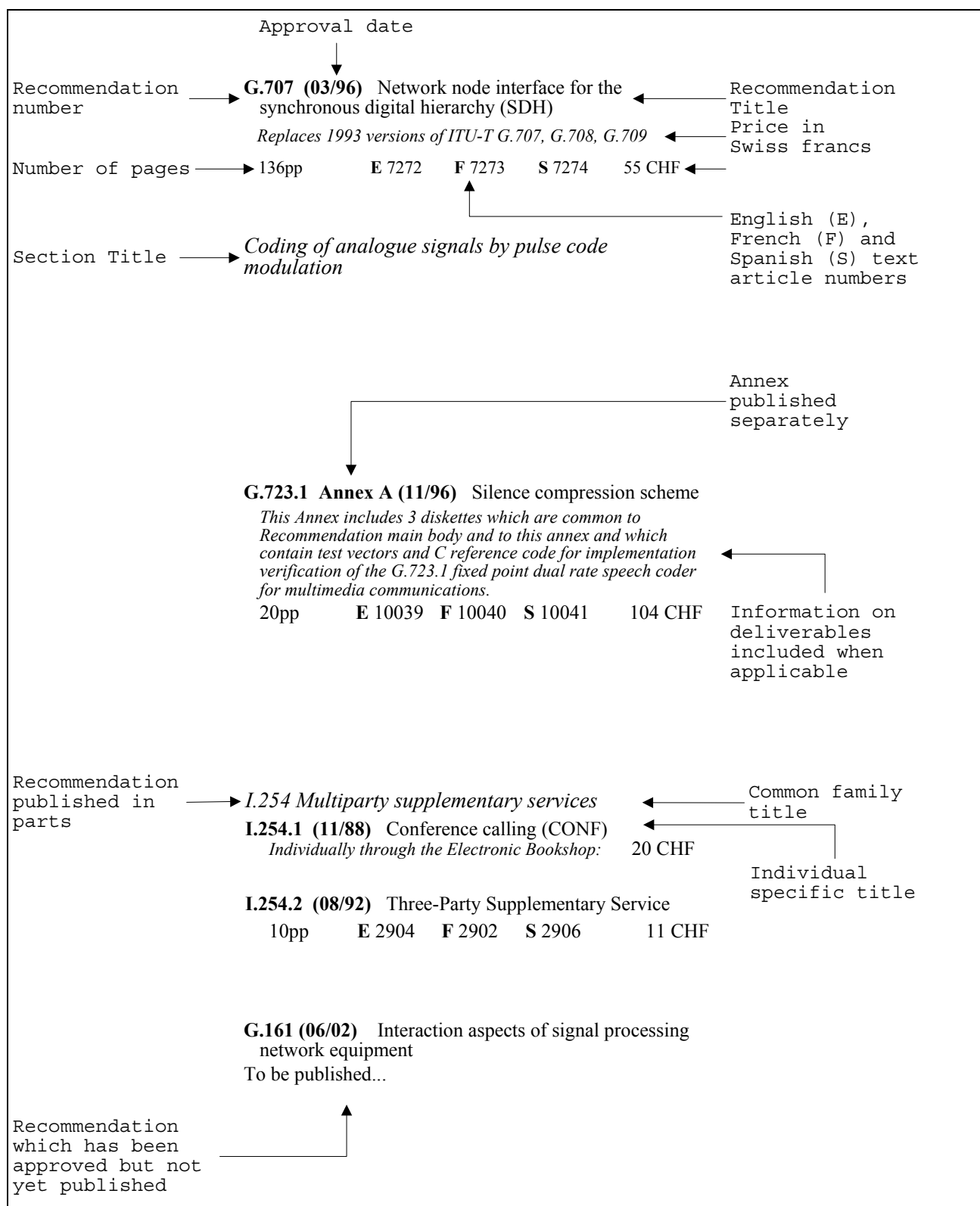
Finally, if you require further information about the operations of the ITU Standardization Sector or the contents of ITU-T Recommendations, please use the address and numbers on page 2.

Telecommunication Standardization Bureau

---

\* From June 2004.

# LEGEND



# List of ITU-T Recommendations in force

## SERIES A

### Organization of the work of ITU-T

#### A.1 (10/00) Work Methods for Study Groups of the ITU Telecommunication Standardization Sector (ITU-T)

Free of charge from the Electronic Bookshop

17pp E 20202 F 20203 S 20204 12 CHF

#### A.2 (10/00) Presentation of contributions relative to the study of Questions assigned to the ITU-T

Free of charge from the Electronic Bookshop

12pp E 20205 F 20206 S 20207 9 CHF

#### A.3 (10/96) **Withdrawn (10/00)**

Elaboration and presentation of texts and development of terminology and other means of expression for Recommendations of the ITU Telecommunication Standardization Sector

*Deleted; an "ITU-T Recommendation author's guide" is available on ITU-T website*

Free of charge from the Electronic Bookshop

E 14771 F 14771 S 14771 12 CHF

#### A.4 (06/02) Communication process between ITU-T and Forums and Consortia

Free of charge from the Electronic Bookshop

14pp E 22840 F 22841 S 22842 9 CHF

#### A.5 (11/01) Generic procedures for including references to documents of other organizations in ITU-T Recommendations

Free of charge from the Electronic Bookshop

8pp E 21663 F 21664 S 21665 9 CHF

#### A.6 (06/02) Cooperation and exchange of information between ITU-T and national and regional standards development organizations

Free of charge from the Electronic Bookshop

14pp E 22843 F 22844 S 22845 9 CHF

#### A.7 (06/02) Focus groups: Working methods and procedures

Free of charge from the Electronic Bookshop

12pp E 22846 F 22847 S 22848 9 CHF

#### A.8 (10/00) Alternative approval process for new and revised Recommendations

Free of charge from the Electronic Bookshop

17pp E 20214 F 20215 S 20216 12 CHF

#### A.9 (11/03) Working procedures for the Special Study Group on IMT-2000 and Beyond

Free of charge from the Electronic Bookshop

13pp E 24779 F 24780 S 24781 12 CHF

#### A.11 (10/00) Publication of ITU-T Recommendations and WTSA proceedings

Free of charge from the Electronic Bookshop

12pp E 20220 F 20221 S 20222 9 CHF

#### A.12 (10/00) Identification and layout of ITU-T Recommendations

Free of charge from the Electronic Bookshop

10pp E 20223 F 20224 S 20225 9 CHF

#### A.13 (10/00) Supplements to ITU-T Recommendations

Free of charge from the Electronic Bookshop

10pp E 20226 F 20227 S 20228 9 CHF

#### A.23 Annex A (11/01) Guide to ITU-T and ISO/IEC JTC1 cooperation

Free of charge from the Electronic Bookshop

#### A.30 (03/93) **Withdrawn (10/00)**

Major degradation or disruption of service

*This Recommendation is also included but not published in F series under alias number F.12*

*This Recommendation, which was also included but not published in F series under alias number F.12, was deleted and its content transferred to ITU-T C.2*

Free of charge from the Electronic Bookshop

E 14775 F 14775 S 14775 9 CHF

### Supplements to the Series A Recommendations

#### Suppl. 3 (01/04) IETF and ITU-T collaboration guidelines

Free of charge from the Electronic Bookshop

14pp E 23317 F 23318 S 23319 12 CHF



## SERIES B

### Means of expression: definitions, symbols, classification

#### **B.1 (11/88) Withdrawn (10/00)**

Letter symbols for telecommunications

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:* 20 CHF

#### **B.3 (11/88) Withdrawn (10/00)**

Use of the international system of units (SI)

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:* 20 CHF

#### **B.10 (11/88) Withdrawn (10/00)**

Graphical symbols and rules for the preparation of documentation in telecommunications

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:* 20 CHF

#### **B.11 (11/88) Legal time – use of the term UTC**

*Individually through the Electronic Bookshop:* 20 CHF

#### **B.12 (11/88) Withdrawn (03/02)**

Use of the decibel and the neper in telecommunications

*Deleted since its content is covered by ITU-T Rec. G.100.1*

*Individually through the Electronic Bookshop:* 20 CHF

#### **B.13 (11/88) Withdrawn (10/00)**

Terms and definitions

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:* 20 CHF

#### **B.14 (11/88) Withdrawn (10/00)**

Terms and symbols for information quantities in telecommunications

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:* 20 CHF

#### **B.15 (10/96) Withdrawn (10/00)**

Nomenclature of the frequency and wavelength bands used in telecommunications

*Deleted; refer to ITU-R definitions*

8pp E 11647 F 11648 S 11649 9 CHF

#### **B.16 (11/88) Withdrawn (10/00)**

Use of certain terms linked with physical quantities

*Deleted; refer to ITU-R definitions*

*Individually through the Electronic Bookshop:* 20 CHF

#### **B.17 (11/88) Adoption of the CCITT Specification and description Language (SDL)**

*Individually through the Electronic Bookshop:* 20 CHF

#### **B.19 (10/96) Withdrawn (10/00)**

Abbreviations and initials used in telecommunications

*Deleted after its content became technically out of date*

8pp E 11176 F 11177 S 11178 9 CHF

## SERIES C

### General telecommunication statistics

#### **C.1 (03/93) Withdrawn (10/00)**

ITU statistical yearbook

*Deleted after the transfer of telecommunication statistics activity to ITU-D*

10pp E 5555 F 5554 S 5556 11 CHF

#### **C.3 (03/93) Withdrawn (09/02)**

Instructions for international telecommunication services

*Given that the text of Rec. C.3 consists of an index to a number of Recommendations which are now of little or no practical use, it was decided to delete it. Electronic access to ITU-T Recommendations would appear to provide a better index and reference mechanisms*

1pp E 3702 F 3701 S 3703 8 CHF

## SERIES D

### General tariff principles

#### **Terms and definitions**

#### **D.000 (06/02) Terms and definitions for the D-series Recommendations**

14pp E 22534 F 22535 S 22536 12 CHF



## General tariff principles

### Private leased telecommunication facilities

**D.1 (07/91)** General principles for the lease of international (continental and intercontinental) private telecommunication circuits and networks

8pp      E 2164      F 2163      S 2165      10 CHF

**D.3 (06/92)** Principles for the lease of analogue international circuits for private service

2pp      E 2622      F 2653      S 2684      8 CHF

**D.4 (12/98)** Special conditions for the lease of international (continental and intercontinental) sound- and television-programme circuits for private service

12pp      E 16030      F 16031      S 16032      12 CHF

**D.5 (11/88)** Costs and value of services rendered as factors in the fixing of rates

*Individually through the Electronic Bookshop:*      20 CHF

**D.7 (01/92)** Concept and implementation of "one-stop shopping" for international private leased telecommunication circuits

3pp      E 2602      F 2631      S 2662      8 CHF

**D.8 (11/88)** Special conditions for the lease of international end-to-end digital circuits for private service

*Individually through the Electronic Bookshop:*      20 CHF

**D.9 (11/88)** Private leasing of transmitters or receivers

*Individually through the Electronic Bookshop:*      20 CHF

### Tariff principles applying to data communication services over dedicated public data networks

**D.10 (07/91)** General tariff principles for international public data communication services

3pp      E 2137      F 2136      S 2138      7 CHF

**D.11 (03/91)** Special tariff principles for international packet-switched public data communication services by means of the virtual call facility

3pp      E 1978      F 1977      S 1979      7 CHF

**D.12 (11/88)** Measurement unit for charging by volume in the international packet-switched data communication service

*Individually through the Electronic Bookshop:*      20 CHF

**D.13 (11/88)** Guiding principles to govern the apportionment of accounting rates in international packet-switched public data communication relations

*Individually through the Electronic Bookshop:*      20 CHF

**D.15 (11/88)** General charging and accounting principles for non-voice services provided by interworking between public data networks

*Individually through the Electronic Bookshop:*      20 CHF

**D.20 (11/88)** Special tariff principles for the international circuit-switched public data communication services

*Individually through the Electronic Bookshop:*      20 CHF

**D.21 (11/88)** Special tariff principles for short transaction transmissions on the international packet-switched public data networks using the fast select facility with restriction

*Individually through the Electronic Bookshop:*      20 CHF

**D.23 (11/03)** Charging and accounting in the international land mobile telephone service (provided via cellular radio systems)

To be published...

**D.30 (11/88)** Implementation of reverse charging on international public data communication services

*Individually through the Electronic Bookshop:*      20 CHF

**D.35 (01/92)** General charging principles in the international public message handling services and associated applications

2pp      E 2600      F 2629      S 2660      8 CHF

**D.36 (03/95)** General accounting principles applicable to message handling services and associated applications

12pp      E 6090      F 6089      S 6091      11 CHF

**D.37 (07/96)** Accounting and settlement principles applicable to the provision of public directory services between interconnected Directory Management Domains  
12pp E 7475 F 7476 S 7477 12 CHF

*Charging and accounting in the international public telegram service*

**D.40 (06/92)** General tariff principles applicable to telegrams exchanged in the international public telegram service  
4pp E 2694 F 2693 S 2695 8 CHF

**D.41 (11/88)** Introduction of accounting rates by zones in the international public telegram service  
*Individually through the Electronic Bookshop: 20 CHF*

**D.42 (11/88)** Accounting in the international public telegram service  
*Individually through the Electronic Bookshop: 20 CHF*

**D.43 (11/88)** Partial and total refund of charges in the international public telegram service  
*A Corrigendum was indicated in 02/1990 for the English version.*  
*Individually through the Electronic Bookshop: 20 CHF*

*Charging and accounting in the international teletext service*

**D.45 (06/92)** Charging and accounting principles for the international teletext service  
2pp E 2627 F 2658 S 2689 8 CHF

*Principles applicable to GII-Internet*

**D.50 (11/88) Withdrawn (10/96)**  
Tariff and international accounting principles for the international teletext service  
*Deleted as a consequence of the suppression of Teletex service*  
*Individually through the Electronic Bookshop: 20 CHF*

**D.50 (10/00)** International Internet Connection  
4pp E 19683 F 19684 S 19685 9 CHF

*Charging and accounting in the international telex service*

**D.60 (07/91)** Guiding principles to govern the apportionment of accounting rates in intercontinental telex relations  
2pp E 2140 F 2139 S 2141 7 CHF

**D.61 (11/88)** Charging and accounting provisions relating to the measurement of the chargeable duration of a telex call  
*Individually through the Electronic Bookshop: 20 CHF*

**D.65 (11/88)** General charging and accounting principles in the international telex service for multi-address messages via store-and-forward units  
*Individually through the Electronic Bookshop: 20 CHF*

**D.67 (03/95)** Charging and accounting in the international telex service  
4pp E 5852 F 5851 S 5853 8 CHF

*Charging and accounting in the international facsimile service*

**D.70 (06/92)** General tariff principles for the international public facsimile service between public bureaux (bureaufax service)  
3pp E 2691 F 2690 S 2692 8 CHF

**D.71 (06/92)** General tariff principles for the public facsimile service between subscriber stations (telefax service)  
2pp E 2626 F 2657 S 2688 8 CHF

**D.73 (06/92)** General tariff and international accounting principles for interworking between the international bureaufax and telefax services  
2pp E 2623 F 2654 S 2685 8 CHF

*Charging and accounting in the international videotex service*

**D.79 (07/91)** Charging and accounting principles for the international videotex service  
5pp E 2146 F 2145 S 2147 7 CHF

*Charging and accounting in the international phototelegraph service*

**D.80 (11/88)** Accounting and refunds for phototelegrams  
*Individually through the Electronic Bookshop: 20 CHF*

**D.81 (11/88)** Accounting and refunds for private phototelegraph calls  
*Individually through the Electronic Bookshop: 20 CHF*

**D.83 (11/88)** Rates for phototelegrams and private phototelegraph calls  
*Individually through the Electronic Bookshop: 20 CHF*

**D.85 (11/88)** Charging for international phototelegraph calls to multiple destinations  
*Individually through the Electronic Bookshop:* 20 CHF

### *Charging and accounting in the mobile services*

**D.90 (03/95)** Charging, billing, international accounting and settlement in the maritime mobile service  
*The date of entry into force of this Recommendation was fixed at the 01 July 1995.*  
*Covering note, May 1999: Spanish only*  
24pp E 6126 F 6125 S 6127 15 CHF

**D.91 (07/96)** Transmission in encoded form of maritime telecommunications accounting information  
*TSB circular 125 (29 June 1998) and corresponding covering note detail year 2000 issues regarding the interpretation of transmitted year data.*  
28pp E 7478 F 7479 S 7480 17 CHF

**D.91 (1996) Amendment 1 (06/98)** Year 2000 issue and its impact on ITU-T D.91 application  
*Published as a covering note*  
1pp E 7478 F 7479 S 7480 9 CHF

### *Charging and accounting in the international phototelegraph service*

**D.93 (11/03)** Charging and accounting in the international land mobile telephone service (provided via cellular radio systems)  
20pp E 24767 F 24768 S 24769 12 CHF

### *Charging and accounting in the mobile services*

**D.94 (01/92)** Charging, billing and accounting principles for international aeronautical mobile service, and international aeronautical mobile-satellite service  
4pp E 2601 F 2630 S 2661 8 CHF

**D.95 (10/92)** Charging, billing, accounting and refunds in the data messaging land/maritime mobile-satellite service  
8pp E 3227 F 3226 S 3228 11 CHF

**D.96 (12/99)** Charging, billing, accounting and settlement principles for Global Mobile Personal Communications by Satellite (GMPCS) for the international telephone service  
32pp E 17694 F 17695 S 17696 17 CHF

**D.98 (03/93) Withdrawn (10/96)**  
Charging and accounting provisions relating to the transferred account telegraph and telematic services  
*Deleted after its content became technically out of date*

### *Charging and accounting in the international telephone service*

**D.100 (11/88)** Charging for international calls in manual or semi-automatic operating  
*Individually through the Electronic Bookshop:* 20 CHF

**D.103 (06/92)** Charging in automatic service for calls terminating on a recorded announcement stating the reason for the call not being completed  
*This Recommendation is also included but not published in E series under alias number E.231*

1pp E 2625 F 2656 S 2687 8 CHF

**D.104 (11/88)** Charging for calls to subscriber's station connected either to the absent subscriber's service or to a device substituting a subscriber in his absence  
*This Recommendation is also published under alias number E.232*

*Individually through the Electronic Bookshop:* 20 CHF

**D.105 (11/88)** Charging for calls from or to a public call office  
*Individually through the Electronic Bookshop:* 20 CHF

**D.106 (11/88)** Introduction of reduced rates during periods of light traffic in international telephone service  
*Individually through the Electronic Bookshop:* 20 CHF

**D.110 (06/92)** Charging and accounting for conference calls  
1pp E 2621 F 2652 S 2683 8 CHF

**D.115 (10/96)** Tariff principles and accounting for the International Freephone Service (IFS)  
8pp E 9994 F 9995 S 9996 9 CHF

**D.116 (10/96)** Charging and accounting principles relating to the home country direct telephone service

8pp E 9997 F 9998 S 9999 9 CHF

**D.117 (06/99)** Charging and accounting principles for the international premium rate service (IPRS)

8pp E 16135 F 16136 S 16137 9 CHF

**D.120 (07/96)** Charging and accounting principles for the international telecommunication charge card service

8pp E 7323 F 7324 S 7325 9 CHF

### *Charging and accounting for international satellite services*

**D.140 (06/02)** Accounting rate principles for the international telephone service

22pp E 22602 F 22603 S 22604 17 CHF

**D.140 (2002) Amendment 1 (12/02)** New Appendix to Annex C: Guidelines

8pp E 23157 F 23158 S 23159 9 CHF

**D.140 (2002) Amendment 2 (06/03)** Revision to Annex E

7pp E 24121 F 24122 S 24123 9 CHF

### *Charging and accounting in the international telephone service*

**D.140 (2002) Amendment 3 (11/03)**  
Revised Annex A – Guideline for the cost elements to be taken into account when determining accounting rates and accounting rate shares for the international telephone service

10pp E 24798 F 24799 S 24800 12 CHF

### *Charging and accounting for international satellite services*

**D.140 Supplement 1 (06/02)** Updated teledensities and indicative target settlement rates

12pp E 22809 F 22810 S 22811 9 CHF

**D.140 Supplement 2 (06/03)** Updated teledensities and indicative target settlement rates (1 January 2003)

10pp E 24143 F 24144 S 24145 9 CHF

### *Charging and accounting in the international telephone service*

**D.150 (06/99)** New system for accounting in international telephony

20pp E 16059 F 16060 S 16061 17 CHF

**D.151 (11/88)** Old system for accounting in international telephony

*A correction was introduced in a Covering note by June 1990*

*Individually through the Electronic Bookshop:* 20 CHF

**D.155 (07/96)** Guiding principles governing the apportionment of accounting rates in intercontinental telephone relations

8pp E 7409 F 7410 S 7411 9 CHF

### *Drawing up and exchange of international telephone and telex accounts*

**D.160 (11/88)** Mode of application of the flat-rate price procedure set forth in Recommendation D.67 and Recommendation D.150 for remuneration of facilities made available to the Administrations of other countries

*Individually through the Electronic Bookshop:* 20 CHF

**D.170 (06/98)** Monthly telephone and telex accounts

16pp E 13757 F 13758 S 13759 12 CHF

**D.171 (11/88)** Adjustments and refunds in the international telephone service

*Individually through the Electronic Bookshop:* 20 CHF

**D.172 (11/88)** Accounting for calls circulated over international routes for which accounting rates have not been established

*Individually through the Electronic Bookshop:* 20 CHF

**D.173 (11/88)** Defaulting subscribers

*Individually through the Electronic Bookshop:* 20 CHF

**D.174 (11/88)** Conventional transmission of information necessary for billing and accounting regarding collect and credit card calls

*Individually through the Electronic Bookshop:* 20 CHF

**D.176 (12/97)** Transmission in encoded form of telephone reversed charge billing and accounting information

*TSB circular 125 (29 June 1998) and corresponding covering note detail year 2000 issues regarding the interpretation of transmitted year data.*

12pp E 13895 F 13896 S 13897 12 CHF

**D.176 (1997) Amendment 1 (06/98)** Year 2000 issue and its impact on ITU-T D.176 application

*Published as a covering note*

1pp            E 13895    F 13896    S 13897            9 CHF

**D.177 (11/88)** Adjustment of charges and refunds in the international telex service

*Individually through the Electronic Bookshop:*    20 CHF

**D.178 (03/93)** Monthly accounts for semi-automatic telephone calls (ordinary and urgent calls, with or without special facilities)

1pp            E 4201        F 4200        S 4202            8 CHF

### *International sound- and television-programme transmissions*

**D.180 (06/02)** Occasional provision of circuits for international sound- and television-programme transmissions

22pp            E 22800    F 22801    S 22802            17 CHF

### *Charging and accounting for international satellite services*

**D.185 (11/88)** General tariff and accounting principles for international one-way point-to-multipoint satellite services

*Individually through the Electronic Bookshop:*    20 CHF

**D.186 (10/96)** General tariff and accounting principles for international two-way multipoint telecommunication service via satellite

12pp            E 10003    F 10004    S 10005            12 CHF

**D.188 (10/92)** General charging and accounting principles applicable to an international videoconferencing service

3pp            E 3207        F 3206        S 3208            8 CHF

### *Transmission of monthly international accounting information*

**D.190 (06/02)** Exchange of international traffic accounting data between Administrations using electronic data interchange (EDI) techniques

14pp            E 22569    F 22570    S 22571            12 CHF

### *Service and privilege telecommunications*

**D.192 (06/92)** Principles for charging and accounting of service telecommunications

2pp            E 2624        F 2655        S 2686            8 CHF

**D.193 (11/88)** Special tariff principles for privilege telecommunications

*Individually through the Electronic Bookshop:*    20 CHF

**D.195 (11/03)** Time-scale for settlement of accounts for international telecommunication services

8pp            E 24764    F 24765    S 24766            9 CHF

### *Settlement of international telecommunication balances of accounts*

**D.196 (06/92)** Clearing of international telecommunication balances of accounts

2pp            E 2620        F 2651        S 2682            8 CHF

**D.197 (07/91)** Notification of change of address(es) for accounting and settlement purposes

3pp            E 2119        F 2118        S 2120            7 CHF

### **Terms and definitions**

**D.201 (12/02)** General principles regarding call-back practices

8pp            E 23048    F 23049    S 23050            9 CHF

### **General tariff principles**

### *Charging and accounting principles for international telecommunication services provided over the ISDN*

**D.210 (09/94)** General charging and accounting principles for international telecommunication services provided over the Integrated Services Digital Network (ISDN)

3pp            E 5647        F 5646        S 5648            8 CHF

**D.211 (12/98)** International accounting for the use of the signal transfer point and/or signalling point for relay in Signalling System No. 7

8pp            E 16027    F 16028    S 16029            9 CHF

**D.212 (10/96)** Charging and accounting principles for the use of Signalling System No. 7

8pp            E 9962        F 9963        S 9964            9 CHF



**D.220 (03/91)** Charging and accounting principles to be applied to international circuit-mode demand bearer services provided over the integrated services digital network (ISDN)

2pp E 2003 F 2002 S 2004 7 CHF

**D.224 (12/99)** Charging and accounting principles for ATM/B-ISDN

24pp E 17776 F 17777 S 17778 17 CHF

**D.225 (12/97)** Charging and accounting principles to be applied to frame relay data transmission service

8pp E 13703 F 13704 S 13705 9 CHF

**D.230 (03/95)** General charging and accounting principles for supplementary services associated with international telecommunication services provided over the Integrated Services Digital Network (ISDN)

2pp E 5979 F 5978 S 5980 8 CHF

**D.231 (11/88)** Charging and accounting principles relating to the User-to-User Information (UII) supplementary service

*Individually through the Electronic Bookshop:* 20 CHF

**D.232 (05/97)** Specific tariff and accounting principles applicable to ISDN supplementary services

12pp E 11632 F 11633 S 11634 12 CHF

**D.233 (07/96)** Charging and accounting principles to be applied to the reversed charge supplementary service

8pp E 7415 F 7416 S 7417 9 CHF

**D.240 (03/91)** Charging and accounting principles for teleservices supported by the ISDN

2pp E 2015 F 2014 S 2016 7 CHF

**D.250 (07/91)** General charging and accounting principles for non-voice services provided by interworking between the ISDN and existing public data networks

2pp E 2125 F 2124 S 2126 7 CHF

**D.251 (11/88)** General charging and accounting principles for the basic telephone service provided over the ISDN or by interconnection between the ISDN and the public switched telephone network

*Individually through the Electronic Bookshop:* 20 CHF

**D.260 (03/91)** Charging and accounting capabilities to be applied on the ISDN

3pp E 2027 F 2026 S 2028 7 CHF

*Charging and accounting principles for universal personal telecommunication*

**D.280 (03/95)** Principles for charging and billing, accounting and reimbursements for universal personal telecommunication

15pp E 6120 F 6119 S 6121 15 CHF

*Charging and accounting principles for intelligent network supported services*

**D.285 (07/96)** Guiding principles for charging and accounting for intelligent network supported services

12pp E 7481 F 7482 S 7483 12 CHF

**D.286 (07/96)** Charging and accounting principles for the global virtual network service

8pp E 7484 F 7485 S 7486 9 CHF

## Recommendations for regional application

*Recommendations applicable in Europe and the Mediterranean Basin*

**D.300R (03/95)** Determination of accounting rate shares in telephone relations between countries in Europe and the Mediterranean Basin

*Covering note, August 1998: Applicability of 1992 values of standard accounting rate shares components*

10pp E 6102 F 6101 S 6103 11 CHF

**D.301R (03/95)** Determination of accounting rate shares and collection charges in telex relations between countries in Europe and the Mediterranean Basin

*Covering note, August 1998: Applicability of 1984 values of standard accounting rate shares components*

11pp E 6150 F 6149 S 6151 11 CHF

**D.302R (03/95)** Determination of the accounting rate shares and collection charges for the international public telegram service applicable to telegrams exchanged between countries in Europe and the Mediterranean Basin

*Covering note, August 1998: Applicability of 1984 values of standard transition and terminal rate shares components*

3pp E 5976 F 5975 S 5977 8 CHF

**D.303R (03/95)** Determination of accounting rate shares and collection charges applicable by countries in Europe and the Mediterranean Basin to the occasional provision of circuits for sound- and television-programme transmissions

*Covering note, August 1998: Applicability of 1984 values of standard accounting rate shares components*

12pp      E 6147      F 6146      S 6148      11 CHF

**D.305R (11/88)      Withdrawn (03/95)**

Remuneration for facilities used for the switched-transit handling of intercontinental telephone traffic in a country in Europe or the Mediterranean Basin

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**D.306R (07/91)** Remuneration of public packet-switched data transmission networks between the countries of Europe and the Mediterranean Basin

2pp      E 2122      F 2121      S 2123      7 CHF

**D.307R (03/95)** Remuneration of digital systems and channels used in telecommunication relations between the countries of Europe and the Mediterranean Basin

*Covering note, August 1998: Applicability of 1984 values of flat-rate remuneration*

4pp      E 6129      F 6128      S 6130      8 CHF

**D.310R (03/95)** Determination of rentals for the lease of international programme (sound- and television-) circuits and associated control circuits for private service in relations between countries in Europe and the Mediterranean Basin

*Covering note, August 1998: Applicability of 1984 values of the annual rental*

2pp      E 5984      F 5983      S 5985      8 CHF

**D.390R (11/88)      Withdrawn (03/95)**

Accounting system in the international automatic telephone service

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

*Recommendations applicable in Latin America*

**D.400R (12/99)** Accounting rates applicable to direct traffic relations in voice telephony between countries in Latin America and the Caribbean

24pp      E 17956      F 17957      S 17958      17 CHF

**D.401R (11/88)      Withdrawn (09/98)**

Accounting rates applicable to telex relations between countries in Latin America

*Deleted following a proposal from the Tariff Group for Latin America and the Caribbean because the maximum rates indicated in this Recommendation cannot be used for negotiating accounting rates*

*Individually through the Electronic Bookshop:*      20 CHF

*Recommendations applicable in Asia and Oceania*

**D.500R (06/98)** Accounting rates applicable to telephone relations between countries in Asia and Oceania

16pp      E 15428      F 15429      S 15430      12 CHF

**D.501R (10/93)** Accounting rates applicable to telex relations between countries in Asia and Oceania

2pp      E 4668      F 4667      S 4669      8 CHF

*Recommendations applicable to the African Region*

**D.600R (10/00)** Implementor's guide for Recommendation G.763 (14 April 2000)

22pp      E 19630      F 19631      S 19632      17 CHF

**D.601R (10/93)** Determination of accounting rate shares and collection charges in telex relations between countries in Africa

8pp      E 5163      F 5221      S 5256      11 CHF

*Recommendations applicable in Asia and Oceania*

**D.602R (12/02)** Application of the 'sender pays transit' principle in transit relations

8pp      E 23045      F 23046      S 23047      9 CHF



**D.603R (12/02)** Minimizing collection charges on inter-African calls  
8pp E 23057 F 23058 S 23059 9 CHF

### *Recommendations applicable to the African Region*

**D.606R (11/88)** Preferential rates in telecommunication relations between countries in Africa  
*Individually through the Electronic Bookshop:* 20 CHF

### **Supplements to the Series D Recommendations**

**Suppl. 1 (11/88)** Cost and tariff study method

**Suppl. 2 (11/88)** Method for carrying out a cost price study by regional tariff groups

**Suppl. 3 (03/93)** Handbook on the methodology for determining costs and establishing national tariffs  
44pp E 7508 F 7509 S 7510 22 CHF

## **SERIES E**

### **Overall network operation, telephone service, service operation and human factors**

### **International operation**

#### *Definitions*

**E.100 (11/88)** Definitions of terms used in international telephone operation  
*Individually through the Electronic Bookshop:* 20 CHF

#### *General provisions concerning Administrations*

**E.104 (02/95)** International telephone directory assistance service and public access  
2pp E 5858 F 5857 S 5859 8 CHF

**E.105 (08/92)** International telephone service  
6pp E 3010 F 3003 S 3017 8 CHF

**E.106 (10/03)** International Emergency Preference Scheme for disaster relief operations (IEPS)  
16pp E 24558 F 24559 S 24560 12 CHF

**E.109 (02/95)** International billed number screening procedures for collect and third-party calling  
4pp E 5861 F 5860 S 5862 8 CHF

**E.110 (11/88)** Organization of the international telephone network  
*Individually through the Electronic Bookshop:* 20 CHF

**E.111 (11/88)** Extension of international telephone services  
*Individually through the Electronic Bookshop:* 20 CHF

**E.112 (11/88)** Arrangements to be made for controlling the telephone services between two countries  
*Individually through the Electronic Bookshop:* 20 CHF

**E.113 (05/97)** Validation procedures for the international telecommunications charge card service  
12pp E 11994 F 11995 S 11996 12 CHF

**E.114 (11/88)** Supply of lists of subscribers (directories and other means)  
*Individually through the Electronic Bookshop:* 20 CHF

**E.115 (02/95)** Computerized directory assistance  
22pp E 5995 F 5994 S 5996 15 CHF

**E.116 (05/97)** International telecommunication charge card service  
16pp E 11883 F 11884 S 11885 12 CHF

**E.117 (06/94)** Terminal devices used in connection with the public telephone service (other than telephones)  
2pp E 5185 F 5235 S 5270 8 CHF

**E.118 (02/01)** The international telecommunication charge card  
16pp E 20927 F 20928 S 20929 12 CHF

#### *General provisions concerning users*

**E.120 (11/88)** Instructions for users of the international telephone service  
*Individually through the Electronic Bookshop:* 20 CHF

**E.121 (07/96)** Pictograms, symbols and icons to assist users of the telephone service  
24pp E 7391 F 7392 S 7393 17 CHF

**E.122 (11/88)** Measures to reduce customer difficulties in the international telephone service  
*Individually through the Electronic Bookshop:* 20 CHF

**E.123 (02/01)** Notation for national and international telephone numbers, e-mail addresses and Web addresses

14pp E 20897 F 20898 S 20899 12 CHF

**E.124 (11/88)** Discouragement of frivolous international calling to unassigned or vacant numbers answered by recorded announcements without charge

*Individually through the Electronic Bookshop:* 20 CHF

**E.125 (10/84)** Inquiries among users of the international telephone service

Electronic Bookshop only  
20 CHF

**E.126 (11/88)** Harmonization of the general information pages of the telephone directories published by administrations

*Individually through the Electronic Bookshop:* 20 CHF

**E.127 (11/88)** Pages in the telephone directory intended for foreign visitors

*Individually through the Electronic Bookshop:* 20 CHF

**E.128 (11/88)** Leaflet to be distributed to foreign visitors

*Individually through the Electronic Bookshop:* 20 CHF

### *General provisions concerning Administrations*

**E.129 (09/02)** Presentation of national numbering plans

20pp E 22915 F 22916 S 22917 12 CHF

### *General provisions concerning users*

**E.130 (11/88)** Choice of the most useful and desirable supplementary telephone services

*Individually through the Electronic Bookshop:* 20 CHF

**E.131 (11/88)** Subscriber control procedures for supplementary telephone services

*Individually through the Electronic Bookshop:* 20 CHF

**E.132 (11/88)** Standardization of elements of control procedures for supplementary telephone services

*Individually through the Electronic Bookshop:* 20 CHF

**E.133 (11/88)** Operating procedures for cardphones

*Individually through the Electronic Bookshop:* 20 CHF

**E.134 (03/93)** Human factors aspects of public terminals: generic operating procedures

4pp E 3935 F 3934 S 3936 8 CHF

**E.135 (10/95)** Human factors aspects of public telecommunication terminals for people with disabilities

12pp E 6452 F 6453 S 6454 11 CHF

**E.136 (05/97)** Specification of a tactile identifier for use with telecommunication cards

8pp E 11982 F 11983 S 11984 9 CHF

**E.137 (05/97)** User instructions for payphones

16pp E 12028 F 12029 S 12030 12 CHF

### *General provisions concerning Administrations*

**E.138 (06/02)** Human factors aspects of public telephones to improve their usability for older people

28pp E 22697 F 22698 S 22699 17 CHF

### **E.138 Erratum 1 (02/03)**

### *Operation of international telephone services*

**E.140 (08/92)** Operator-assisted telephone service

4pp E 3012 F 3005 S 3019 8 CHF

**E.141 (03/93) Withdrawn (12/02)**

Instructions for operators on the operator-assisted international telephone service

*Issued as an independant instructions handbook. This Recommendation was deleted on December 20th, 2002 since it was no longer of interest*

E 3382 F 3381 S 3383 23 CHF

**E.148 (11/88)** Routing of traffic by automatic transit exchanges

*Individually through the Electronic Bookshop:* 20 CHF

**E.149 (11/88)** Presentation of routing data

*Individually through the Electronic Bookshop:* 20 CHF

**E.150 (11/88) Withdrawn (02/96)**

Publication of a "list of international telephone routes"

*Deleted after ITU-T decision not to publish the list due to the impossibility of updating it in the existing international environment*

*Individually through the Electronic Bookshop:*

**E.151 (08/92)** Telephone conference calls

2pp E 3013 F 3006 S 3020 8 CHF

**E.152 (02/01)** International freephone service  
36pp E 21209 F 21210 S 21211 17 CHF

**E.153 (10/96)** Home country direct  
8pp E 10836 F 10837 S 10838 9 CHF

**E.154 (03/98)** International shared cost service  
28pp E 13475 F 13476 S 13477 17 CHF

**E.155 (03/98)** International premium rate service  
25pp E 13456 F 13457 S 13548 17 CHF

**E.155 (1998) Amendment 1 (02/01)** The international telecommunication charge card  
6pp E 20879 F 20880 S 20881 9 CHF

### *Numbering plan of the international telephone service*

**E.160 (03/93) Withdrawn (05/97)**  
Definitions relating to national and international numbering plans  
*The content of this Recommendation is now covered by ITU-T E.164 (1997)*  
5pp E 4563 F 4562 S 4564 8 CHF

**E.161 (02/01)** Arrangement of digits, letters and symbols on telephones and other devices that can be used for gaining access to a telephone network  
14pp E 20885 F 20886 S 20887 12 CHF

**E.162 (04/95) Withdrawn (08/03)**  
Capability for seven digit analysis of international E.164 numbers at time T  
*ITU-T Rec. E.162 was deleted on August 13, 2003 since the increased digit analysis from 6 to 7-digits at Time 'T' that it contains has been incorporated into E.164*  
1pp E 5989 F 5988 S 5990 8 CHF

**E.163 (11/88) Withdrawn (08/91)**  
Numbering plan for the international telephone service  
*The content of this Recommendation was incorporated in ITU-T E.164 (1991)*  
*Individually through the Electronic Bookshop:*

**E.164 (05/97)** The international public telecommunication numbering plan  
*Replaces former E.163 numbering plan*  
24pp E 11877 F 11878 S 11879 17 CHF

**E.164 Supplement 1 (03/98)** Alternatives for carrier selection and network identification  
16pp E 13513 F 13514 S 13515 12 CHF

**E.164 Supplement 2 (11/98)** Number Portability  
24pp E 15318 F 15319 S 15320 17 CHF

### *Numbering plan and dialling procedures in the international service*

**E.164 Supplement 3 (05/02)** Supplement 3: Operational and administrative issues associated with national implementations of the ENUM functions

30pp E 22932 F 22933 S 22934 17 CHF

**E.164 Supplement 4 (05/03)** Operational and administrative issues associated with the implementation of ENUM for non-geographic country codes

17pp E 24448 F 24449 S 24450 12 CHF

### *Numbering plan of the international telephone service*

**E.164.1 (10/03)** Criteria and procedures for the reservation, assignment and reclamation of E.164 country codes and associated identification codes (ICs)  
23pp E 24633 F 24634 S 24635 17 CHF

**E.164.2 (02/01)** E.164 numbering resources for trials  
10pp E 20900 F 20901 S 20902 9 CHF

**E.164.3 (09/01)** Principles, criteria and procedures for the assignment and reclamation of E.164 country codes and associated identification codes for groups of countries  
13pp E 23185 F 23186 S 23187 12 CHF

**E.165 (11/88)** Timetable for coordinated implementation of the full capability of the numbering plan for the ISDN era (Recommendation E.164)

*This Recommendation is also published under alias number Q.11 ter*

*Individually through the Electronic Bookshop:* 20 CHF

**E.165.1 (10/96)** Use of escape code "0" within the E.164 numbering plan during the transition period to implementation of NPI mechanism

8pp E 10006 F 10007 S 10008 9 CHF

### **Public data networks**

**E.166/X.122 (03/98)** Numbering plan interworking for the E.164 and X.121 numbering plans

*This Recommendation is published with the double number E.166 and X.122*

44pp E 13314 F 10010 S 10011 22 CHF

**E.167 (11/88)** ISDN network identification codes  
*Individually through the Electronic Bookshop:* 20 CHF

*Numbering plan and dialling procedures in the international service*

**E.168 (05/02)** Application of E.164 numbering plan for UPT  
18pp E 22426 F 22427 S 22428 12 CHF

**E.168.1 (05/02)** Assignment procedures for universal personal telecommunications (UPT) numbers in the provisioning of the UPT service  
20pp E 22426 F 22427 S 22428 12 CHF

*Numbering plan of the international telephone service*

**E.169 (05/02)** Application of Recommendation E.164 numbering plan for universal international numbers for international telecommunications services using country codes for global services  
14pp E 23079 F 23080 S 23081 12 CHF

**E.169.1 (09/01)** Application of Recommendation E.164 numbering plan for universal international freephone numbers for international freephone service  
*This version is a revision of former Rec. E.169 (11/1998)*  
30pp E 21715 F 21716 S 21717 17 CHF

**E.169.2 (10/00)** Application of Recommendation E.164 numbering plan for universal international premium rate numbers for the international premium rate service  
24pp E 18897 F 18898 S 18899 17 CHF

**E.169.3 (10/00)** Application of Recommendation E.164 numbering plan for universal international shared cost numbers for international shared cost service  
24pp E 18771 F 18772 S 18773 17 CHF

*International routing plan*

**E.170 (10/92)** Traffic routing  
8pp E 3277 F 3276 S 3278 8 CHF

**E.171 (11/88)** International telephone routing plan  
*Individually through the Electronic Bookshop:* 20 CHF

**E.172 (10/92)** ISDN routing plan  
*Replaces ITU-T I.335 (1988).*  
18pp E 3354 F 3353 S 3355 15 CHF

**E.173 (08/91)** Routing plan for interconnection between public land mobile networks and fixed terminal networks  
12pp E 2339 F 2317 S 2361 10 CHF

**E.174 (04/95)** Routing principles and guidance for Universal Personal Telecommunications (UPT)  
9pp E 6162 F 6161 S 6163 11 CHF

**E.175 (11/88)** Models for international network planning  
*Individually through the Electronic Bookshop:* 20 CHF

**E.177 (10/96)** B-ISDN routing  
16pp E 10012 F 10013 S 10014 12 CHF

*Tones in national signalling systems*

**E.180/Q.35 (03/98)** Technical characteristics of tones for the telephone service  
*This Recommendation is published with the double number E.180 and Q.35*  
16pp E 13110 F 13111 S 13112 12 CHF

**E.181 (11/88)** Customer recognition of foreign tones  
*Individually through the Electronic Bookshop:* 20 CHF

**E.182 (03/98)** Application of tones and recorded announcements in telephone services  
12pp E 13244 F 13246 S 13248 12 CHF

**E.183 (03/98)** Guiding principles for telephone announcements  
8pp E 13250 F 13253 S 13255 9 CHF

**E.184 (11/88)** Indications to users of ISDN terminals  
*Individually through the Electronic Bookshop:* 20 CHF

*Numbering plan of the international telephone service*

**E.190 (05/97)** Principles and responsibilities for the management, assignment and reclamation of E-series international numbering resources  
12pp E 11785 F 11786 S 11787 12 CHF

**E.191 (03/00)** B-ISDN addressing  
22pp E 17930 F 17931 S 17932 17 CHF

**E.191 (2000) Corrigendum 1 (02/02)**

**E.191.1 (02/01)** Criteria and procedures for the allocation of the ITU-T International Network Designator addresses

14pp	E 22154	F 22155	S 22156	12 CHF
------	---------	---------	---------	--------

**E.193 (03/00)** E.164 country code expansion

16pp	E 18191	F 18194	S 18193	12 CHF
------	---------	---------	---------	--------

**E.195 (10/00)** ITU-T International numbering resource administration

12pp	E 18736	F 18737	S 18738	12 CHF
------	---------	---------	---------	--------

### *Maritime mobile service and public land mobile service*

**E.200 (07/96) Withdrawn (10/96)**  
Operational provisions for the maritime mobile service

*E.200 was an alias name of ITU-T F.110. Only this alias name was suppressed. ITU-T F.110 remains valid*

**E.201 (08/91) Withdrawn (09/02)**  
Reference recommendation for mobile services

*This Recommendation was deleted since it has not been updated since 1991*

9pp	E 2335	F 2313	S 2357	10 CHF
-----	--------	--------	--------	--------

**E.202 (10/92)** Network operational principles for future public mobile systems and services

6pp	E 3268	F 3267	S 3269	8 CHF
-----	--------	--------	--------	-------

**E.210 (11/88)** Ship station identification for VHF/UHF and maritime mobile-satellite services

*This Recommendation is also published under alias number F.120. For more details, see F.120*

*Individually through the Electronic Bookshop: 20 CHF*

**E.211 (11/88) Withdrawn (02/02)**  
Selection procedures for VHF/UHF maritime mobile services

*Deleted because E.211 has no service function*

*Individually through the Electronic Bookshop: 20 CHF*

**E.212 (11/98)** The international identification plan for mobile terminals and mobile users

8pp	E 14489	F 14490	S 14491	9 CHF
-----	---------	---------	---------	-------

**E.212 (1998) Amendment 1 (05/03)** New Annex A: Criteria and procedures for the assignment of shared E.212 mobile country codes (MCC) and their respective mobile network codes (MNC)

11pp	E 24158	F 24159	S 24160	9 CHF
------	---------	---------	---------	-------

**E.213 (11/88)** Telephone and ISDN numbering plan for land mobile stations in public land mobile networks (PLMN)

*Individually through the Electronic Bookshop: 20 CHF*

**E.214 (11/88)** Structure of the land mobile global title for the signalling connection control part (SCCP)

*Individually through the Electronic Bookshop: 20 CHF*

**E.215 (05/97) Withdrawn (12/02)**  
Telephone/ISDN numbering plan for the mobile-satellite services of Inmarsat

*Recs E.215 and F.125 were deleted on December 20th, 2002 since their content was published as an annex to ITU-T Rec. E.217 (05/2002)*

20pp	E 11828	F 11829	S 11830	17 CHF
------	---------	---------	---------	--------

**E.216 (03/93) Withdrawn (10/96)**  
Selection procedures for the INMARSAT mobile-satellite telephone and ISDN services

*Only the previous edition (1988) of ITU-T E.216 was published. 1993 edition was never published and the out-of-date Recommendation was definitively suppressed in 1996*

**E.217 (05/02)** Maritime communications – Ship station identity

34pp	E 23088	F 23089	S 23090	17 CHF
------	---------	---------	---------	--------

**E.220 (02/96)** Interconnection of public land mobile networks (PLMN)

8pp	E 7136	F 7137	S 7138	9 CHF
-----	--------	--------	--------	-------

### **Operational provisions relating to charging and accounting in the international telephone service**

#### *Charging in the international telephone service*

**E.230 (08/92)** Chargeable duration of calls

1pp	E 3014	F 3007	S 3021	8 CHF
-----	--------	--------	--------	-------

**E.231 (06/92)** Charging in automatic service for calls terminating on a recorded announcement stating the reason for the call not being completed

*This Recommendation is published under alias number D.103*



**E.232 (11/88)** Charging for calls to subscriber's station connected either to the absent subscriber's service or to a device substituting a subscriber in his absence

*This Recommendation is also published under alias number D.104. For more details, see D.104*

*Individually through the Electronic Bookshop:* 20 CHF

**E.251 (11/88) Withdrawn (02/98)**

Old system for accounting in international telephony

*E.251 was an alias name of ITU-T D.151. Only this alias name was suppressed. ITU-T D.151 remains valid*

**E.252 (11/88) Withdrawn ()**

Mode of application of the flat-rate price procedure set forth in Recommendations D.67 and D.150 for remuneration of facilities made available to the Administrations of other countries

*E.252 was an alias name of ITU-T D.160. Only this alias name was suppressed. ITU-T D.160 remains valid*

*Measuring and recording call durations for accounting purposes*

**E.260 (11/88)** Basic technical problems concerning the measurement and recording of call durations

*Individually through the Electronic Bookshop:* 20 CHF

**E.261 (11/88)** Devices for measuring and recording call durations

*Individually through the Electronic Bookshop:* 20 CHF

**E.270 (03/95) Withdrawn (02/98)**

Monthly telephone and telex accounts

*E.270 was an alias name of ITU-T D.170. Only this alias name was suppressed. ITU-T D.170 remains valid*

**E.275 (09/95) Withdrawn (02/98)**

Exchange of international traffic accounting data between Administrations using electronic data interchange (EDI) techniques

*E.275 was an alias name of ITU-T D.190. Only this alias name was suppressed. ITU-T D.190 remains valid*

**E.276 (12/97) Withdrawn (02/98)**

Transmission in encoded form of telephone reversed charge billing and accounting information

*E.276 was an alias name of ITU-T D.176. Only this alias name was suppressed. ITU-T D.176 remains valid*

*Individually through the Electronic Bookshop:*

**E.277 (11/88) Withdrawn (02/98)**

Conventional transmission of information necessary for the collection of charges and the accounting regarding collect and credit card calls

*E.277 was an alias name of ITU-T D.174. Only this alias name was suppressed. ITU-T D.174 remains valid*

**Supplements to the Series E Recommendations relating to the operations of the international service**

**E.300 Series Supplement 1 (11/88)** List of possible supplementary telephone services which may be offered to subscribers

*Individually through the Electronic Bookshop:* 20 CHF

**E.300 Series Supplement 2 (01/94)** Various tones used in national networks

34pp E 5529 F 5528 S 5530 17 CHF

**E.300 Series Supplement 3 (11/88)** North american precise audible tone plan

*Individually through the Electronic Bookshop:* 20 CHF

**E.300 Series Supplement 4 (11/88)** Treatment of calls considered as terminating abnormally

*Individually through the Electronic Bookshop:* 20 CHF

**E.300 Series Supplement 5 (10/84)** Modelling of an experimental test design for the determination of inexperienced user difficulties in setting up international calls using nationally available instructions, or to compare different sets of instructions

12pp E 21894 F 21894 S 21894 9 CHF

**E.300 Series Supplement 6 (11/88)** Preparation of information to customers travelling abroad

*Individually through the Electronic Bookshop:* 20 CHF

**E.300 Series Supplement 7 (11/88)** Description of INMARSAT existing and planned systems

*Individually through the Electronic Bookshop:* 20 CHF

## Utilization of the international telephone network for non-telephony applications

### General

**E.300 (11/88)** Special uses of circuits normally employed for automatic telephone traffic

*Individually through the Electronic Bookshop:* 20 CHF

**E.301 (03/93)** Impact of non-voice applications on the telephone network

15pp E 5098 F 5097 S 5099 11 CHF

### Phototelegraphy

**E.320 (11/88)** Speeding up the establishment and clearing of phototelegraph calls

*Individually through the Electronic Bookshop:* 20 CHF

**E.323 (11/88)** Rules for phototelegraph communications set up over circuits normally used for telephone traffic

*This Recommendation is published under alias number F.82 which was subsequently renumbered as F.107*

## ISDN provisions concerning users

**E.330 (11/88)** User control of ISDN-supported services

*Individually through the Electronic Bookshop:* 20 CHF

**E.331 (10/91)** Minimum user-terminal interface for a human user entering address information into an ISDN terminal

6pp E 2341 F 2319 S 2363 7 CHF

**E.333 (11/88)** Man-machine interface

*This Recommendation is published under alias number Z.323*

## International routing plan

**E.350 (03/00)** Dynamic Routing Interworking

48pp E 18048 F 18049 S 18050 22 CHF

**E.351 (03/00)** Routing of multimedia connections across TDM-, ATM-, and IP-based networks

52pp E 18266 F 18267 S 18268 29 CHF

**E.352 (03/00)** Routing guidelines for efficient routing methods

20pp E 18125 F 18126 S 18127 17 CHF

**E.353 (02/01)** Routing of calls when using international network routing addresses

16pp E 20924 F 20925 S 20926 12 CHF

**E.360.1 (05/02)** Framework for QoS routing and related traffic engineering methods for IP-, ATM-, and TDM-based multiservice networks

50pp E 23114 F 23115 S 23116 22 CHF

**E.360.2 (05/02)** QoS routing & related traffic engineering methods – Call routing and connection routing methods

38pp E 23095 F 23096 S 23097 22 CHF

**E.360.3 (05/02)** QoS routing and related traffic engineering methods – QoS resource management methods

38pp E 23067 F 23068 S 23069 22 CHF

**E.360.4 (05/02)** QoS routing and related traffic engineering methods – routing table management methods & requirements

32pp E 23021 F 23022 S 23023 17 CHF

**E.360.5 (05/02)** QoS routing and related traffic engineering methods – Transport routing methods

29pp E 23131 F 23132 S 23133 17 CHF

**E.360.6 (05/02)** QoS routing and related traffic engineering methods – capacity management methods

38pp E 23101 F 23102 S 23103 17 CHF

**E.360.7 (05/02)** QoS routing and related traffic engineering methods – Routing table management methods and requirements

20pp E 22966 F 22967 S 22968 12 CHF

**E.361 (05/03)** QoS routing support for interworking of QoS service classes across routing technologies

23pp E 23984 F 23985 S 23986 17 CHF



### ISDN provisions concerning users

- E.370 (02/01)** Service principles when public circuit-switched international telecommunication networks interwork with IP-based networks  
16pp E 20602 F 20603 S 20604 12 CHF

### Network management

#### International service statistics

- E.401 (11/88)** Statistics for the international telephone service (number of circuits in operation and volume of traffic)  
*Individually through the Electronic Bookshop:* 20 CHF

#### International network management

- E.410 (03/98)** International network management – General information  
12pp E 13256 F 13257 S 13258 12 CHF

- E.411 (03/00)** International network management – Operational guidance  
28pp E 18195 F 18196 S 18197 17 CHF

- E.411 (2000) Amendment 1 (03/01)**  
8pp E 20535 F 20536 S 20537 9 CHF

- E.412 (01/03)** Network management controls  
30pp E 23595 F 23596 S 23597 17 CHF

- E.413 (11/88)** International network management – Planning  
*Individually through the Electronic Bookshop:* 20 CHF

- E.414 (11/88)** International network management – Organization  
*Individually through the Electronic Bookshop:* 20 CHF

- E.415 (08/91)** International network management guidance for common channel signalling system No. 7  
7pp E 2336 F 2314 S 2358 10 CHF

- E.416 (03/00)** Network Management Principles and Functions for B-ISDN Traffic  
16pp E 18109 F 18110 S 18111 12 CHF

- E.417 (02/01)** Framework for the network management of IP-Based networks  
20pp E 20888 F 20889 S 20890 17 CHF

- E.418 (05/03)** Framework for network management of IMT-2000 networks  
13pp E 24386 F 24387 S 24388 12 CHF

### Checking the quality of the international telephone service

- E.420 (11/88)** Checking the quality of the international telephone service – General considerations

*Individually through the Electronic Bookshop:* 20 CHF

- E.421 (11/88)** Service quality observations on a statistical basis

*Individually through the Electronic Bookshop:* 20 CHF

- E.422 (02/96)** Observations on international outgoing telephone calls for quality of service

16pp E 7230 F 7232 S 7235 12 CHF

- E.423 (11/88)** Observations on traffic set up by operators

*Individually through the Electronic Bookshop:* 20 CHF

- E.424 (10/92)** Test calls

3pp E 3280 F 3279 S 3281 8 CHF

- E.425 (03/02)** Internal automatic observations

20pp E 22034 F 22035 S 22036 12 CHF

- E.426 (10/92)** General guide to the percentage of effective attempts which should be observed for international telephone calls

1pp E 3274 F 3273 S 3275 8 CHF

- E.427 (11/88)** Collection and statistical analysis of special quality of service observation data for measurements of customer difficulties in the international automatic service

*Individually through the Electronic Bookshop:* 20 CHF

- E.428 (10/92)** Connection retention

2pp E 3252 F 3251 S 3253 8 CHF

- E.430 (06/92)** Quality of service framework

3pp E 2707 F 2706 S 2708 8 CHF

- E.431 (06/92)** Service quality assessment for connection set-up and release delays

3pp E 2801 F 2763 S 2836 8 CHF

- E.432 (06/92)** Connection quality

5pp E 2802 F 2764 S 2837 8 CHF

<b>E.433 (06/92)</b>	Billing integrity			
3pp	E 2803	F 2765	S 2838	8 CHF
<b>E.434 (06/92)</b>	Subscriber-to-subscriber measurement of the public switched telephone network			
8pp	E 2814	F 2779	S 2849	11 CHF
<b>E.436 (03/98)</b>	Customer Affecting Incidents and blocking Defects Per Million			
8pp	E 12970	F 12971	S 12972	9 CHF
<b>E.437 (05/99)</b>	Comparative metrics for network performance management			
12pp	E 15974	F 15975	S 15976	12 CHF
<b>E.438 (03/00)</b>	Performance parameters and measurement methods to assess N-ISDN 64 kbit/s circuit switched bearer service UDI in operation			
12pp	E 18643	F 18644	S 18645	12 CHF
<b>E.439 (03/00)</b>	Test call measurement to assess N-ISDN 64 kbit/s circuit-switched bearer service UDI in operation			
20pp	E 18598	F 18599	S 18600	17 CHF
<b>E.440 (02/96)</b>	Customer satisfaction point			
4pp	E 7030	F 7031	S 7032	9 CHF
<b>E.450 (03/98)</b>	Facsimile quality of service on public networks – General aspects			
8pp	E 13113	F 13114	S 13115	9 CHF
<b>E.451 (02/01)</b>	Facsimile call cut-off performance			
8pp	E 20921	F 20922	S 20923	9 CHF
<b>E.452 (03/93)</b>	Facsimile modem speed reductions and transaction time			
3pp	E 4156	F 4155	S 4157	8 CHF
<b>E.453 (08/94)</b>	Facsimile image quality as corrupted by transmission-induced scan line errors			
5pp	E 5653	F 5652	S 5654	8 CHF
<b>E.454 (10/96)</b>	Transmission performance metrics based on Error Correction Mode (ECM) facsimile			
12pp	E 9914	F 9915	S 9916	12 CHF
<b>E.456 (03/98)</b>	Test transaction for facsimile transmission performance			
8pp	E 13259	F 13260	S 13261	9 CHF

<b>E.457 (02/96)</b>	Facsimile measurement methodologies			
8pp	E 7203	F 7204	S 7205	9 CHF
<b>E.458 (02/96)</b>	Figure of merit for facsimile transmission performance			
4pp	E 7033	F 7034	S 7035	9 CHF
<b>E.459 (03/98)</b>	Measurements and metrics for characterizing facsimile transmission performance using non-intrusive techniques			
16pp	E 13009	F 13010	S 13011	12 CHF
<b>E.460 (03/00)</b>	Measurements and metrics for monitoring the performance of V.34 Group 3 facsimile			
12pp	E 18198	F 18199	S 18200	12 CHF

## Traffic engineering

### *Measurement and recording of traffic*

<b>E.490 (06/92)</b>	Traffic measurement and evaluation – General survey			
5pp	E 2804	F 2766	S 2839	8 CHF
<b>E.490.1 (01/03)</b>	Overview of Recommendations on traffic engineering			
26pp	E 23536	F 23537	S 23538	17 CHF
<b>E.491 (05/97)</b>	Traffic measurement by destination			
8pp	E 11799	F 11800	S 11801	9 CHF
<b>E.492 (02/96)</b>	Traffic reference period			
8pp	E 7108	F 7109	S 7110	9 CHF
<b>E.493 (02/96)</b>	Grade of service (GOS) monitoring			
16pp	E 7308	F 7309	S 7310	12 CHF
<b>E.500 (11/98)</b>	Traffic intensity measurement principles			
16pp	E 14598	F 14599	S 14600	12 CHF
<b>E.501 (05/97)</b>	Estimation of traffic offered in the network			
28pp	E 11973	F 11974	S 11975	17 CHF
<b>E.502 (02/01)</b>	Traffic measurement requirements for digital telecommunication exchanges			
34pp	E 21411	F 21412	S 21413	17 CHF
<b>E.503 (06/92)</b>	Traffic measurement data analysis			
6pp	E 2813	F 2775	S 2848	8 CHF
<b>E.504 (11/88)</b>	Traffic measurement administration			
<i>Individually through the Electronic Bookshop:</i>				20 CHF

**E.505 (06/92)** Measurements of the performance of common channel signalling network  
13pp E 2815 F 2780 S 2850 11 CHF

### Forecasting of traffic

**E.506 (06/92)** Forecasting international traffic  
19pp E 2818 F 2783 S 2853 15 CHF

**E.507 (11/88)** Models for forecasting international traffic  
*Individually through the Electronic Bookshop:* 20 CHF

**E.508 (10/92)** Forecasting new telecommunication services  
20pp E 3386 F 3385 S 3387 15 CHF

### Determination of the number of circuits in manual operation

**E.510 (11/88) Withdrawn (09/02)**  
Determination of the number of circuits in manual operation  
*This Recommendation was deleted since it has not been updated since 1988 and is no longer of interest*  
*Individually through the Electronic Bookshop:* 20 CHF

### Determination of the number of circuits in automatic and semi-automatic operation

**E.520 (11/88)** Number of circuits to be provided in automatic and/or semiautomatic operation, without overflow facilities  
*Individually through the Electronic Bookshop:* 20 CHF

**E.521 (11/88)** Calculation of the number of circuits in a group carrying overflow traffic  
*Individually through the Electronic Bookshop:* 20 CHF

**E.522 (11/88)** Number of circuits in a high-usage group  
*Individually through the Electronic Bookshop:* 20 CHF

**E.523 (11/88)** Standard traffic profiles for international traffic streams  
*Individually through the Electronic Bookshop:* 20 CHF

**E.524 (05/99)** Overflow approximations for non-random inputs  
16pp E 16094 F 16095 S 16096 12 CHF

**E.525 (06/92)** Designing networks to control grade of service  
7pp E 2816 F 2781 S 2851 11 CHF

**E.526 (03/93)** Dimensioning a circuit group with multi-slot bearer services and no overflow inputs  
5pp E 4949 F 4948 S 4950 9 CHF

**E.527 (03/00)** Dimensioning at a circuit group with multi-slot bearer services and overflow traffic  
16pp E 18543 F 18544 S 18545 12 CHF

**E.528 (02/96)** Dimensioning of digital circuit multiplication equipment (DCME) systems  
20pp E 7311 F 7312 S 7313 17 CHF

**E.529 (05/97)** Network dimensioning using end-to-end GOS objectives  
40pp E 11997 F 11998 S 11999 22 CHF

### Grade of service

**E.540 (11/88)** Overall grade of service of the international part of an international connection  
*Individually through the Electronic Bookshop:* 20 CHF

**E.541 (11/88)** Overall grade of service for international connections (subscriber-to-subscriber)  
*Individually through the Electronic Bookshop:* 20 CHF

**E.543 (11/88)** Grades of service in digital international telephone exchanges  
*Individually through the Electronic Bookshop:* 20 CHF

**E.550 (03/93)** Grade-of-service and new performance criteria under failure conditions in international telephone exchanges  
9pp E 5074 F 5073 S 5075 11 CHF

### Definitions

**E.600 (03/93)** Terms and definitions of traffic engineering  
16pp E 4162 F 4161 S 4163 15 CHF

### Traffic engineering for IP-networks

**E.651 (03/00)** Reference connections for traffic engineering of IP access networks  
12pp E 18201 F 18202 S 18203 12 CHF

**E.671 (03/00)** Post-selection delay in PSTN/ISDN using Internet telephony for a portion of the connection  
12pp E 18128 F 18129 S 18130 12 CHF

**E.681 (10/01)** Traffic engineering methods for IP access networks based on hybrid fiber/coax system  
18pp E 22458 F 22459 S 22460 12 CHF

### *ISDN traffic engineering*

**E.700 (10/92)** Framework of the E.700-Series Recommendations  
1pp E 3310 F 3309 S 3311 8 CHF

**E.701 (10/92)** Reference connections for traffic engineering  
2pp E 3289 F 3288 S 3290 8 CHF

**E.710 (10/92) Withdrawn (10/96)**  
ISDN traffic modelling overview

*Deleted after its content became technically out of date*

**E.711 (10/92)** User demand modelling  
9pp E 3323 F 3322 S 3324 11 CHF

**E.712 (10/92)** User plane traffic modelling  
14pp E 3313 F 3312 S 3314 11 CHF

**E.713 (10/92)** Control plane traffic modelling  
*Only the title changes*  
8pp E 3389 F 3388 S 3390 8 CHF

**E.716 (10/96)** User demand modelling in Broadband-ISDN  
16pp E 9917 F 9918 S 9919 12 CHF

**E.720 (11/88)** ISDN grade of service concept  
*Individually through the Electronic Bookshop:* 20 CHF

**E.721 (05/99)** Network grade of service parameters and target values for circuit-switched services in the evolving ISDN  
12pp E 16014 F 16015 S 16016 12 CHF

**E.723 (06/92)** Grade-of-service parameters for Signalling System No. 7 networks  
5pp E 2820 F 2785 S 2855 8 CHF

**E.724 (02/96)** GOS parameters and target GOS objectives for IN services  
12pp E 7154 F 7155 S 7156 12 CHF

**E.726 (03/00)** Network grade of service parameters and target values for B-ISDN  
20pp E 18275 F 18276 S 18277 17 CHF

**E.728 (03/98)** Grade-of-service parameters for B-ISDN signalling  
12pp E 13002 F 13003 S 13004 12 CHF

**E.730 (10/92) Withdrawn (10/96)**  
ISDN dimensioning methods overview

*Deleted after its content became technically out of date*

**E.731 (10/92)** Methods for dimensioning resources operating in circuit-switched mode  
10pp E 3429 F 3428 S 3430 9 CHF

**E.733 (11/98)** Methods for dimensioning resources in Signalling System No. 7 networks  
20pp E 14639 F 14640 S 14641 17 CHF

**E.734 (10/96)** Methods for allocating and dimensioning Intelligent Network (IN) resources  
28pp E 9859 F 9860 S 9861 17 CHF

**E.735 (05/97)** Framework for traffic control and dimensioning in B-ISDN  
32pp E 11985 F 11986 S 11987 17 CHF

**E.736 (03/00)** Methods for cell level traffic control in B-ISDN  
36pp E 18649 F 18650 S 18651 22 CHF

**E.737 (02/01)** Dimensioning methods for B-ISDN  
46pp E 21020 F 21021 S 21022 22 CHF

**E.743 (04/95)** Traffic measurements for SS No. 7 dimensioning and planning  
3pp E 6004 F 6003 S 6005 8 CHF

**E.744 (10/96)** Traffic and congestion control requirements for SS No. 7 and IN-structured networks  
16pp E 9920 F 9921 S 9922 12 CHF

**E.745 (03/00)** Cell level measurement requirements for the B-ISDN  
20pp E 18646 F 18647 S 18648 17 CHF

### *Mobile network traffic engineering*

**E.750 (03/00)** Introduction to the E.750 series of Recommendations on traffic engineering aspects of networks supporting personnal communications services  
16pp E 18546 F 18547 S 18548 12 CHF

**E.751 (02/96)** Reference connections for traffic engineering of land mobile networks

12pp      E 7206      F 7207      S 7208      12 CHF

**E.752 (10/96)** Reference connections for traffic engineering of maritime and aeronautical systems

20pp      E 10015      F 10016      S 10017      17 CHF

**E.755 (02/96)** Reference connections for UPT traffic performance and GOS

8pp      E 7036      F 7037      S 7038      9 CHF

**E.760 (03/00)** Terminal mobility traffic modelling

20pp      E 18390      F 18391      S 18392      17 CHF

**E.770 (03/93)** Land mobile and fixed network interconnection traffic grade of service concept

3pp      E 4308      F 4307      S 4309      8 CHF

**E.771 (10/96)** Network grade of service parameters and target values for circuit-switched public land mobile services

20pp      E 9923      F 9924      S 9925      17 CHF

**E.773 (10/96)** Maritime and aeronautical mobile grade of service concept

8pp      E 9862      F 9863      S 9864      9 CHF

**E.774 (10/96)** Network grade of service parameters and target values for maritime and aeronautical mobile services

12pp      E 9865      F 9866      S 9867      12 CHF

**E.775 (02/96)** UPT grade of service concept

8pp      E 7104      F 7105      S 7106      9 CHF

**E.776 (10/96)** Network grade of service parameters for UPT

8pp      E 9868      F 9869      S 9870      9 CHF

### **Quality of telecommunication services: concepts, models, objectives and dependability planning**

#### *Terms and definitions related to the quality of telecommunication services*

**E.800 (08/94)** Terms and definitions related to quality of service and network performance including dependability

53pp      E 5867      F 5866      S 5868      20 CHF

### **Supplements to the Series E Recommendations relating to telephone network management and traffic engineering**

**E.800 Series Supplement 5 (11/88)** Teletraffic implications for international switching and operational procedures resulting from a failure of a transmission facility

*Individually through the Electronic Bookshop:*      20 CHF

**E.800 Series Supplement 2 (11/88)** Curves showing the relation between the traffic offered and the number of circuits required

*Individually through the Electronic Bookshop:*      20 CHF

**E.800 Series Supplement 7 (11/88)** Guide for evaluating and implementing alternate routing networks

*Individually through the Electronic Bookshop:*      20 CHF

**E.800 Series Supplement 1 (11/88)** Table of the Erlang formula

*Individually through the Electronic Bookshop:*      20 CHF

#### *Terms and definitions related to the quality of telecommunication services*

**E.801 (10/96)** Framework for service quality agreement

20pp      E 9982      F 9983      S 9984      17 CHF

#### *Models for telecommunication services*

**E.810 (10/92)** Framework of the Recommendations on the serveability performance and service integrity for telecommunication services

2pp      E 3326      F 3325      S 3327      8 CHF

**E.820 (10/92)** Call models for serveability and service integrity performance

9pp      E 3329      F 3328      S 3330      8 CHF

**E.830 (10/92)** Models for the specification, evaluation and allocation of serveability and service integrity

3pp      E 3304      F 3303      S 3305      8 CHF

#### *Objectives for quality of service and related concepts of telecommunication services*

**E.845 (11/88)** Connection accessibility objective for the international telephone service

*Individually through the Electronic Bookshop:*      20 CHF

**E.846 (03/93)** Accessibility for 64 kbit/s circuit-switched international end-to-end ISDN connection types

6pp E 5077 F 5076 S 5078 8 CHF

**E.850 (10/92)** Connection retainability objective for the international telephone service

5pp E 3316 F 3315 S 3317 9 CHF

**E.855 (11/88)** Connection integrity objective for the international telephone service

*Individually through the Electronic Bookshop:* 20 CHF

*Use of quality of service objectives for planning of telecommunication networks*

**E.860 (06/02)** Framework of a service level agreement

30pp E 22803 F 22804 S 22805 17 CHF

**E.862 (06/92)** Dependability planning of telecommunication networks

13pp E 2821 F 2786 S 2856 11 CHF

*Field data collection and evaluation on the performance of equipment, networks and services*

**E.880 (11/88)** Field data collection and evaluation on the performance of equipment, networks and services

*Individually through the Electronic Bookshop:* 20 CHF

**SERIES F**  
**Non-telephone telecommunication services**

**Telegraph service**

*Operating methods for the international public telegram service*

**F.1 (03/98)** Operational provisions for the international public telegram service

64pp E 13031 F 13032 S 13033 29 CHF

**F.2 (11/88)** Operational provisions for the collection of telegram charges

*Published as F.42 (11/88), then renumbered as F.2*

*Individually through the Electronic Bookshop:* 20 CHF

**F.4 (11/88)** Plain and secret language

*Individually through the Electronic Bookshop:* 20 CHF

**F.10 (11/88)** Character error rate objective for telegraph communication using 5-unit start-stop equipment

*Individually through the Electronic Bookshop:* 20 CHF

**F.11 (10/91)** Continued availability of traditional services

2pp E 2347 F 2325 S 2369 7 CHF

**F.12 (03/93) Withdrawn (10/00)**

Major degradation or disruption of service

*This Recommendation is published under alias number A.30*

*This Recommendation was published under alias number A.30, which was deleted and transferred to ITU-T C.2*

**F.13 (11/88) Withdrawn (07/96)**

Operational provisions for participation in the transferred account telegraph and telematic service

*Published as F.41 (11/88), then renumbered as F.13. It was deleted after the withdrawal of the transferred account telegraph and telematic service*

*Individually through the Electronic Bookshop:*

**F.14 (08/92)** General provisions for one-stop-shopping arrangements

2pp E 2878 F 2870 S 2886 8 CHF

**F.15 (08/92)** Evaluating the success of new services

2pp E 2880 F 2872 S 2888 8 CHF

**F.16 (02/95)** Global virtual network service

19pp E 5973 F 5972 S 5974 15 CHF

**F.17 (08/92)** Operational aspects of service telecommunications

2pp E 2881 F 2873 S 2889 8 CHF

**F.18 (03/98)** Guidelines on harmonization of international public bureau services

12pp E 13073 F 13074 S 13075 12 CHF

**F.19 (01/96)** Collection and dissemination of official service information

10pp E 22741 F 22741 S 22741 9 CHF

**F.19 (01/02)** Collection and dissemination of official service information

*Formerly C.2, renumbered as F.19 on 25/01/2002 without further modification*



### The gentex network

- F.20 (11/88)** The international gentex service  
*Individually through the Electronic Bookshop:* 20 CHF
- F.21 (11/88)** Composition of answer-back codes for the international gentex service  
*Individually through the Electronic Bookshop:* 20 CHF
- F.23 (11/88)** Grade of service for long-distance international gentex circuits  
*Individually through the Electronic Bookshop:* 20 CHF
- F.24 (11/88)** Average grade of service from country to country in the gentex service  
*Individually through the Electronic Bookshop:* 20 CHF

### Message switching

- F.30 (03/93)** Use of various sequences of combinations for special purposes  
 2pp E 3732 F 3731 S 3733 8 CHF
- F.31 (11/88)** Telegram retransmission system  
*Individually through the Electronic Bookshop:* 20 CHF
- F.32 (10/95)** Telegram destination indicators  
*Formerly Rec. F.96.*  
 8pp E 6438 F 6439 S 6440 8 CHF
- F.35 (11/88)** Provisions applying to the operation of an international public automatic message switching service for equipments utilizing the international telegraph Alphabet No. 2  
*Individually through the Electronic Bookshop:* 20 CHF

### The international telemesssage service

- F.40 (03/91)** International public telemesssage service  
*Formerly Rec. F.50.*  
 10pp E 1954 F 1953 S 1955 10 CHF
- F.41 (03/91)** Interworking between the telemesssage service and the international public telegram service  
*Formerly Rec. F.51.*  
 2pp E 1963 F 1962 S 1964 7 CHF

### The international telex service

- F.59 (10/96)** General characteristics of the international telex service  
 12pp E 10889 F 10890 S 10891 12 CHF
- F.60 (08/92)** Operational provisions for the international telex service  
 31pp E 3009 F 3002 S 3016 15 CHF

- F.61 (11/88)** Operational provisions relating to the chargeable duration of a telex call  
*Individually through the Electronic Bookshop:* 20 CHF
- F.63 (03/93)** Additional facilities in the international telex service  
 2pp E 3748 F 3747 S 3749 8 CHF
- F.64 (11/88)** Determination of the number of international telex circuits required to carry a given volume of traffic  
*Individually through the Electronic Bookshop:* 20 CHF
- F.65 (11/88)** Time-to-answer by operators at international telex positions  
*Individually through the Electronic Bookshop:* 20 CHF
- F.68 (11/88)** Establishment of the automatic intercontinental telex network  
*Individually through the Electronic Bookshop:* 20 CHF
- F.69 (06/94)** The international telex service – Service and operational provisions of telex destination codes and telex network identification codes  
 5pp E 5456 F 5455 S 5457 8 CHF
- F.70 (11/88)** Evaluating the quality of the international telex service  
*Individually through the Electronic Bookshop:* 20 CHF
- F.71 (11/88)** Interconnection of private teleprinter networks with the telex network  
*Individually through the Electronic Bookshop:* 20 CHF
- F.72 (10/96)** The international telex service – General principles and operational aspects of a store and forward facility  
 20pp E 11009 F 11010 S 11011 17 CHF
- F.73 (07/90)** Operational principles for communication between terminals of the international telex service and data terminal equipment on packet-switched public data networks  
*Corr. 12/90*  
 6pp E 1887 F 1886 S 1888 7 CHF
- F.74 (08/92)** Intermediate storage devices accessed from the international telex service using single stage selection – Answerback format  
 2pp E 2876 F 2868 S 2884 8 CHF
- F.80 (10/91)** Basic requirements for interworking relations between the international telex service and other services  
 3pp E 2348 F 2326 S 2370 7 CHF



**F.82 (10/91)** Operational provisions to permit interworking between the international telex service and the intex service

2pp      E 2345      F 2323      S 2367      7 CHF

**F.83 (07/90)** Operational principles for communication between terminals of the international telex service and data terminal equipment on packet-switched public data networks

*Published as F.73, then renumbered as F.83. A Corrigendum was indicated in 12/1990.*

6pp      E 1887      F 1886      S 1888      7 CHF

**F.85 (11/88)** Message handling services – Intercommunication between the IPM service and the telex service

*This Recommendation was renumbered from F.75, and is published under alias number F.421*

*Covering note, December 1999: Intercommunication between the IPM service and the telex service.*

*Individually through the Electronic Bookshop:*

**F.86 (10/91)** Interworking between the international telex service and the videotex service

6pp      E 2350      F 2328      S 2372      7 CHF

**F.87 (03/91)** Operational principles for the transfer of messages from terminals on the telex network to Group 3 facsimile terminals connected to the public switched telephone network

*Drafted as F.76, then renumbered and published as F.87.*

9pp      E 1966      F 1965      S 1967      10 CHF

**F.89 (08/92)** Status enquiry function in the international telex service

4pp      E 2877      F 2869      S 2885      8 CHF

### *Statistics and publications on international telegraph services*

#### **F.91 (11/88)      Withdrawn (07/96)**

General statistics for the telegraph services

*Deleted as a consequence of the abolition of a number of service documents*

*Individually through the Electronic Bookshop:*

#### **F.92 (11/88)      Withdrawn (07/96)**

Service codes

*The content of this Recommendation is now covered by ITU-T F.32*

*Individually through the Electronic Bookshop:*

#### **F.93 (11/88)      Withdrawn (07/96)**

Routing table for offices connected to the gentex service

*Deleted as a consequence of the abolition of a number of service documents*

*Individually through the Electronic Bookshop:*

#### **F.95 (11/88)      Withdrawn (07/96)**

Table of international telex relations and traffic

*Deleted as a consequence of the abolition of a number of service documents*

*Individually through the Electronic Bookshop:*

### *Scheduled and leased communication services*

**F.100 (11/88)** Scheduled radiocommunication service

*Individually through the Electronic Bookshop:*      20 CHF

**F.104 (10/91)** International leased circuit services – customer circuit designations

2pp      E 2342      F 2320      S 2364      7 CHF

### *Phototelegraph service*

**F.105 (11/88)** Operational provisions for phototelegrams

*Published as F.80 (11/88), then renumbered as F.105.*

*Individually through the Electronic Bookshop:*      20 CHF

**F.106 (11/88)** Operational provisions for private phototelegraph calls

*Published as F.80 bis (11/88), then renumbered as F.106.*

*Individually through the Electronic Bookshop:*      20 CHF

**F.107 (11/88)** Rules for phototelegraph established calls over circuits normally used for telephone traffic

*Published as F.82 (11/88), then renumbered as F.107. This Recommendation is also included but not published in E series under alias number E.323.*

*Individually through the Electronic Bookshop:*      20 CHF

**F.108 (11/88)** Operating rules for international phototelegraph calls to multiple destinations

*Published as F.85 (11/88), then renumbered as F.108.*

*Individually through the Electronic Bookshop:*      20 CHF

## Mobile service

### Mobile services and multideestination satellite services

#### F.110 (07/96) Operational provisions for the maritime mobile service

*The date of entry into effect of this Recommendation edition is 1 January 1997.*

24pp E 9562 F 9563 S 9564 17 CHF

#### F.111 (03/91) Principles of service for mobile systems

2pp E 1969 F 1968 S 1970 7 CHF

#### F.112 (11/88) Quality objectives for 50-baud start-stop telegraph transmission in the maritime mobile-satellite service

*Individually through the Electronic Bookshop:* 20 CHF

#### F.113 (08/92) Service provisions for aeronautical passenger communications supported by mobile-satellite systems

3pp E 2879 F 2871 S 2887 8 CHF

#### F.115 (02/95) Service objectives and principles for future public land mobile telecommunication systems

9pp E 5967 F 5966 S 5968 11 CHF

#### F.116 (03/00) Service features and operational provisions in IMT-2000

16pp E 18042 F 18043 S 18044 12 CHF

#### F.120 (11/88) Ship station identification for VHF/UHF and maritime mobile-satellite services

*This Recommendation is also published under alias number E.210*

*Individually through the Electronic Bookshop:* 20 CHF

#### F.122 (11/88) Operational procedures for the maritime satellite data transmission service

*Individually through the Electronic Bookshop:* 20 CHF

#### F.125 (08/93) Numbering plan for access to the mobile-satellite services of INMARSAT from the international telex service

*Recs E.215 and F.125 were deleted on December 20th, 2002 since their content was published as an annex to ITU-T Rec. E.217 (05/2002)*

8pp E 4496 F 4495 S 4497 11 CHF

#### F.127 (10/96) Operational procedures for interworking between the international telex service and the service offered by the INMARSAT-C system

8pp E 10801 F 10802 S 10803 9 CHF

#### F.130 (11/88) Maritime answer-back codes

*Individually through the Electronic Bookshop:* 20 CHF

#### F.131 (11/88) Radiotelex service codes

*Individually through the Electronic Bookshop:* 20 CHF

#### F.140 (03/93) Point-to-multipoint telecommunication service via satellite

4pp E 3862 F 3861 S 3863 8 CHF

#### F.141 (06/94) International two-way multipoint telecommunication service via satellite

3pp E 5468 F 5467 S 5469 8 CHF

#### F.150 (10/91) Service and operational provisions for the Intex service

4pp E 2349 F 2327 S 2371 7 CHF

## Telematic services

### Public facsimile service

#### F.160 (03/93) **Withdrawn (07/99)**

General operational provisions for the international public facsimile services

*Deleted as a result of liberalisation in the telecommunications environment resulting in the removal of international regulated services*

5pp E 3672 F 3671 S 3673 8 CHF

#### F.162 (07/96) Service and operational requirements of store-and-forward facsimile service

12pp E 9565 F 9566 S 9567 12 CHF

#### F.163 (07/96) Operational requirements of the interconnection of facsimile store-and-forward units

12pp E 9651 F 9652 S 9653 12 CHF

#### F.166 (07/96) **Withdrawn (07/99)**

Service and operational requirements for a fax database service (FaxDB)

*Deleted as there are no plans for the introduction of a service of this nature*

8pp E 7275 F 7276 S 7277 9 CHF

#### F.170 (03/98) Operational provisions for the international public facsimile service between public bureaux (Bureaufax)

12pp E 13034 F 13035 S 13036 12 CHF

#### F.171 (11/88) Operational provisions relating to the use of store-and-forward switching nodes within the bureaufax service

*Individually through the Electronic Bookshop:* 20 CHF

**F.180 (10/96) Withdrawn (07/99)**

General operational provisions for the international public facsimile service between subscribers' terminals (Telefax)

*Deleted as a result of liberalisation in the telecommunications environment resulting in the removal of international regulated services*

12pp E 10771 F 10772 S 10773 12 CHF

**F.182 bis (10/96)** Guidelines for the support of the communication of documents using Group 3 facsimile between user terminals via public networks

8pp E 10777 F 10778 S 10779 9 CHF

**F.182 (10/96) Withdrawn (07/99)**

Operational provisions for the international public facsimile service between subscribers with Group 3 facsimile terminals (Telefax 3)

*Deleted as a result of liberalisation in the telecommunications environment resulting in the removal of international regulated services*

8pp E 10774 F 10775 S 10776 9 CHF

**F.184 (07/96) Withdrawn (07/99)**

Operational provisions for the international public facsimile service between subscriber stations with group 4 facsimile terminals (telefax 4)

*Deleted as a result of liberalisation in the telecommunications environment resulting in the removal of international regulated services*

16pp E 7487 F 7488 S 7489 12 CHF

**F.185 (06/98)** Internet facsimile: Guidelines for the support of the communication of facsimile documents

8pp E 13964 F 13965 S 13966 9 CHF

**F.190 (08/92)** Operational provisions for the international facsimile service between public bureaux and subscriber stations and vice versa (bureaufax-telefax and vice versa)

3pp E 2989 F 2982 S 2996 8 CHF

*Teletex service***F.200 (08/92) Withdrawn (07/96)**

Teletex service

*Deleted as a consequence of the suppression of Teletex service*

**F.201 (03/93) Withdrawn (07/96)**

Interworking between teletex service and telex service – General principles

*Deleted as a consequence of the suppression of Teletex service*

**F.202 (11/88) Withdrawn (07/96)**

Interworking between the telex service and the teletex service – General procedures and operational requirements for the international interconnection of telex/teletex conversion facilities

*Deleted as a consequence of the suppression of Teletex service*

*Individually through the Electronic Bookshop:*

**F.203 (11/88) Withdrawn (07/96)**

Network based storage for the teletex service

*Deleted as a consequence of the suppression of Teletex service*

*Individually through the Electronic Bookshop:*

**F.220 (03/93) Withdrawn (07/96)**

Service requirements unique to the processable mode number eleven (PM11) used within the teletex service

*Deleted as a consequence of the suppression of Teletex service*

**F.230 (11/88) Withdrawn (07/96)**

Service requirements unique to the mixed mode (MM) used within the teletex service

*Deleted as a consequence of the suppression of Teletex service*

*Individually through the Electronic Bookshop:*

*Videotex service***F.300 (03/93)** Videotex service

30pp E 4029 F 4028 S 4030 20 CHF

**F.301 (10/95)** Fast speed PSTN videotex

8pp E 6645 F 6646 S 6647 8 CHF

*General provisions for telematic services***F.350 (11/88)** Application of Series T Recommendations

*Individually through the Electronic Bookshop:* 20 CHF

**F.351 (11/88)** General principles on the presentation of terminal identification to users of the telematic services

*Individually through the Electronic Bookshop:* 20 CHF

**F.353 (11/88)** Provision of telematic and data transmission services on integrated services digital network (ISDN)

*Individually through the Electronic Bookshop:* 20 CHF

**Message handling services****F.400/X.400 (06/99)** Message handling services: Message handling system and service overview

To be published...

**F.401 (08/92)** Message handling services: Naming and addressing for public message handling services

19pp E 3077 F 3076 S 3078 15 CHF

**F.410 (08/92)** Message handling system: The public message transfer service

9pp      E 3061      F 3060      S 3062      11 CHF

**F.415 (11/88)** Message handling system:  
Intercommunication with public physical delivery services

*Erratum in F.410 (08/92)*

*Individually through the Electronic Bookshop:*      20 CHF

**F.420 (08/92)** Message handling system: The public interpersonal messaging service

14pp      E 3071      F 3070      S 3072      11 CHF

**F.421 Errata (12/99)** Errata to Recommendation F.421 (11/88)

**F.421 (11/88)** Intercommunication between the IPM service and the telex service

*This Recommendation is also included but not published in F series under alias number F.85.*

*Covering note, December 1999: Intercommunication between the IPM service and the telex service.*

*Individually through the Electronic Bookshop:*      20 CHF

**F.422 (11/88)      Withdrawn (07/96)**

Message handling services: Intercommunication between the IPM service and the teletex service

*Deleted as a consequence of the suppression of Teletex service*

*Individually through the Electronic Bookshop:*

**F.423 (08/92)** Message handling system:  
Intercommunication between the interpersonal messaging service and the telefax service

6pp      E 3064      F 3063      S 3065      8 CHF

**F.435 (06/99)** Message handling services: Electronic Data Interchange messaging service

54pp      E 17675      F 17676      S 17677      29 CHF

**F.440 (08/92)** Message handling services: The voice messaging service

32pp      E 3080      F 3079      S 3081      20 CHF

**F.471 (08/97)** Operational requirements for the interconnection of voice-mail store-and-forward units

16pp      E 11952      F 11953      S 11954      12 CHF

**F.471 (1997) Corrigendum 1 (09/98)**

**F.472 (08/97)** Service and operational requirements of the voice-mail store-and-forward service

16pp      E 11926      F 11927      S 11928      12 CHF

## Directory services

**F.500 (08/92)** International public directory services

37pp      E 3192      F 3191      S 3193      20 CHF

**F.510 (02/03)** Automated directory assistance – White pages service definition

54pp      E 23964      F 23965      S 23966      29 CHF

**F.515 (04/03)** Unified Directory Specification

71pp      E 24364      F 24365      S 24366      34 CHF

## Document communication

**F.551 (03/93)      Withdrawn (05/00)**

Service Recommendation for the telematic file transfer within telefax 3, telefax 4, teletex services and message handling services

*This Recommendation is no longer needed since the characteristics of the file transfer capabilities are fully described in ITU-T T.434 (BFT)*

4pp      E 3723      F 3722      S 3724      8 CHF

## Programming communication interfaces

**F.581 (03/93)** Guidelines for programming communication interfaces (PCIs) definition: service Recommendation

8pp      E 3977      F 3976      S 3978      11 CHF

## Data transmission services

**F.600 (09/98)** Service and operational principles for public data transmission service

12pp      E 14601      F 14602      S 14603      12 CHF

**F.600 (04/04)** Service and operational principles for public data transmission service

To be published...

## Audiovisual services

**F.700 (11/00)** Framework Recommendation for multimedia services

56pp      E 18501      F 18502      S 18503      29 CHF

**F.701 (11/00)** Guideline Recommendation for identifying multimedia service requirements

12pp      E 18733      F 18734      S 18735      12 CHF

**F.701 (11/88)      Withdrawn (05/98)**

Teleconference service

*This Recommendation was published as F.710 (11/88), then renumbered as F.701. Its content is superseded by ITU-T F.702 on multimedia*

*Individually through the Electronic Bookshop:*

**F.702 (07/96)** Multimedia conference services  
32pp E 9771 F 9772 S 9773 17 CHF

**F.703 (11/00)** Multimedia conversational services  
20pp E 18874 F 18875 S 18876 17 CHF

**F.710 (03/91) Withdrawn (05/98)**  
General principles for audiographic conference service  
*The content of this Recommendation is superseded by ITU-T F.702 on multimedia*  
12pp E 1997 F 1996 S 1998 10 CHF

**F.711 (08/93) Withdrawn (05/98)**  
Audiographic conference teleservice for ISDN  
*The content of this Recommendation is superseded by ITU-T F.731 on multimedia*  
8pp E 4686 F 4685 S 4687 11 CHF

**F.720 (08/92)** Videotelephony services – General  
9pp E 3133 F 3132 S 3134 11 CHF

**F.721 (08/92)** Videotelephony teleservice for ISDN  
10pp E 3115 F 3114 S 3116 11 CHF

**F.723 (07/96)** Videophone service in the Public Switched Telephone Network (PSTN)  
8pp E 7447 F 7448 S 7449 9 CHF

**F.730 (08/92) Withdrawn (05/98)**  
Videoconference service – General  
*The content of this Recommendation is superseded by ITU-T F.702 on multimedia*  
14pp E 3124 F 3123 S 3125 11 CHF

**F.731 (07/97)** Multimedia Conference Services in the ISDN  
12pp E 11815 F 11816 S 11817 12 CHF

**F.732 (10/96)** Multimedia conference services in the B-ISDN  
28pp E 11073 F 11074 S 11075 17 CHF

**F.740 (08/93)** Audiovisual interactive services  
9pp E 4689 F 4688 S 4690 11 CHF

**F.761 (11/88)** Service-oriented requirements for telewriting applications  
*Published as F.730 (11/88), then renumbered as F.761.*  
*Individually through the Electronic Bookshop:* 20 CHF

## ISDN services

**F.811 (07/96)** Broadband connection-oriented bearer service  
24pp E 9752 F 9753 S 9754 22 CHF

**F.812 (08/92)** Broadband connectionless data bearer service  
6pp E 3136 F 3135 S 3137 8 CHF

**F.813 (02/95)** Virtual path service for reserved and permanent communications  
13pp E 5998 F 5997 S 5999 11 CHF

## Universal personal telecommunication

**F.850 (03/93)** Principles of universal personal telecommunication (UPT)  
2pp E 3681 F 3680 S 3682 8 CHF

**F.851 (02/95)** Universal Personal Telecommunication (UPT) – Service description (service set 1)  
27pp E 6022 F 6021 S 6023 15 CHF

**F.852 (03/00)** Universal personal telecommunication (UPT) – Service description (service set 2)  
44pp E 18624 F 18625 S 18626 22 CHF

**F.853 (11/98)** Supplementary services in the Universal Personal Telecommunication (UPT) environment  
16pp E 14604 F 14605 S 14606 12 CHF

## Human factors

**F.901 (03/93)** Usability evaluation of telecommunication services  
5pp E 3735 F 3734 S 3736 8 CHF

**F.902 (02/95)** Interactive services design guidelines  
5pp E 5876 F 5875 S 5877 8 CHF

**F.910 (02/95)** Procedures for designing, evaluating and selecting symbols, pictograms and icons  
7pp E 5970 F 5969 S 5971 11 CHF

## Supplements to the Series F Recommendations

**Suppl. 1 (11/88)** Definitions relating to telegraph, telematic and data transmission services  
20 CHF

**Suppl. 2 (11/88)** Terms and definitions for telex  
20 CHF



## SERIES G

### Transmission systems and media, digital systems and networks

**Suppl. 39 (03/04)** Optical system design and engineering considerations

84pp E 25243 34 CHF

#### General definitions

**G.100 (02/01)** Definitions used in Recommendations on general characteristics of international telephone connections and circuits

38pp E 21183 F 21184 S 21185 22 CHF

#### Supplements to Section 1 of the Series G Recommendations

**G.100 Series Supplement 29 (03/93)** Planning of mixed analogue-digital circuits (chains, connections)

34pp E 4868 F 4867 S 4869 17 CHF

**G.100 Series Supplement 31 (03/93)** Principles of determining an impedance strategy for the local network

17pp E 4662 F 4661 S 4663 12 CHF

**G.100 Series Supplement 32 (03/93)** Transmission aspects of digital mobile radio systems

14pp E 4811 F 4810 S 4812 12 CHF

#### International telephone connections and circuits

##### General definitions

**G.100.1 (11/01)** The use of the decibel and of relative levels in speechband telecommunications

36pp E 22417 F 22418 S 22419 17 CHF

**G.101 (11/03)** The transmission plan

34pp E 24864 17 CHF

**G.102 (11/88)** Transmission performance objectives and Recommendations

*Individually through the Electronic Bookshop:* 20 CHF

**G.103 (12/98)** Hypothetical reference connections

20pp E 14645 F 14646 S 14647 17 CHF

**G.105 (11/88)** Hypothetical reference connection for crosstalk studies

*Individually through the Electronic Bookshop:* 20 CHF

**G.107 (07/02)** The E-Model, a computational model for use in transmission planning

26pp E 22797 F 22798 S 22799 17 CHF

**G.107 (03/03)** The E-Model, a computational model for use in transmission planning

25pp E 24222 F 24223 S 24224 17 CHF

**G.108 (09/99)** Application of the E-model: A planning guide

*Covering note, November 2000: Erratum*

140pp E 17913 F 17914 S 17915 55 CHF

**G.108 (1999) Amendment 1 (09/03)**

New Appendix I: The relationship between and interaction of talker echo and absolute delay

11pp E 24770 F 24771 S 24772 9 CHF

**G.108 (1999) Amendment 2 (03/04)** Appendix II: Planning examples regarding delay in packet based networks

14pp E 25685 12 CHF

**G.108 Appendix I (09/03)** The relationship between and interaction of talker echo and absolute delay

To be published...

**G.108 Erratum (12/00)** Erratum to Recommendation ITU-T G.108 (09/99)

**G.108.1 (05/00)** Guidance for assessing conversational speech transmission quality effects not covered by the E-model

20pp E 19424 F 19425 S 19426 17 CHF

**G.108.2 (01/03)** Transmission planning aspects of echo cancellers

22pp E 24257 F 27258 S 24259 17 CHF

**G.109 (09/99)** Definition of categories of speech transmission quality

8pp E 17587 F 17588 S 17589 9 CHF

#### General Recommendations on the transmission quality for an entire international telephone connection

**G.111 (03/93)** Loudness ratings (LRs) in an international connection

17pp E 4952 F 4951 S 4953 15 CHF

**G.113 (02/01)** Transmission impairments due to speech processing

*Appendix I in G.113 was revised by 10/2001 version*

26pp E 21034 F 21035 S 21036 17 CHF

**G.113 Appendix I (05/02)** Provisional planning values for the equipment impairment factor  $I_e$  and packet-loss robustness factor  $B_{pl}$

10pp      E 22649    F 22650    S 22651      9 CHF

**G.114 (05/03)** One-way transmission time

19pp      E 24508    F 24509    S 24510      12 CHF

**G.114 Amendment 1 (09/03)** New Appendix II: Guidance on one-way delay for Voice over IP

*The text introduced by this amendment was directly included in G.114 (05/2003)*

To be published...

**G.114 Appendix II (09/03)** Guidance on one-way delay for Voice over IP

To be published...

**G.115 (02/96)** Mean active speech level for announcement and speech synthesis systems

4pp      E 7039      F 7040      S 7041      9 CHF

**G.116 (09/99)** Transmission performance objectives applicable to end-to-end international connections

16pp      E 17578    F 17579    S 17580      12 CHF

**G.117 (02/96)** Transmission aspects of unbalance about earth

20pp      E 7288      F 7290      S 7291      17 CHF

*General characteristics of national systems forming part of international connections*

**G.120 (12/98)** Transmission characteristics of national networks

16pp      E 14677    F 14678    S 14679      12 CHF

**G.121 (03/93)** Loudness ratings (LRs) of national systems

13pp      E 4656      F 4655      S 4657      11 CHF

**G.122 (03/93)** Influence of national systems on stability and talker echo in international connections

11pp      E 4814      F 4813      S 4815      11 CHF

**G.125 (11/88)      Withdrawn (03/99)**  
Characteristics of national circuits on carrier systems

*The content of this Recommendation is now covered by ITU-T G.120*

*Individually through the Electronic Bookshop:*      20 CHF

**G.126 (03/93)** Listener echo in telephone networks

7pp      E 4659      F 4658      S 4660      11 CHF

*General characteristics of the 4-wire chain formed by the international circuits and national extension circuits*

**G.131 (11/03)** Talker echo and its control

17pp      E 24967    F 24968    S 24969      12 CHF

**G.132 (11/88)      Withdrawn (03/99)**  
Attenuation distortion

*The content of this Recommendation is now covered by ITU-T G.120*

*Individually through the Electronic Bookshop:*      20 CHF

**G.133 (11/88)      Withdrawn (03/99)**  
Group-delay distortion

*The content of this Recommendation is now covered by ITU-T G.120*

*Individually through the Electronic Bookshop:*      20 CHF

**G.134 (11/88)      Withdrawn (03/99)**  
Linear crosstalk

*The content of this Recommendation is now covered by ITU-T G.120*

*Individually through the Electronic Bookshop:*      20 CHF

**G.135 (11/88)      Withdrawn (03/99)**  
Error on the reconstituted frequency

*The content of this Recommendation is now covered by ITU-T G.120*

*Individually through the Electronic Bookshop:*      20 CHF

**G.136 (09/99)** Application rules for automatic level control devices

*Covering note, May 2000: Erratum*

8pp      E 17347    F 17348    S 17349      9 CHF

**G.136 Erratum (12/00)** Erratum to Recommendation ITU-T G.136 (09/99)

*General characteristics of the 4-wire chain of international circuits; international transit*

**G.141 (11/88)      Withdrawn (03/99)**  
Attenuation distortion

*The content of this Recommendation is now covered by ITU-T G.120*

*Individually through the Electronic Bookshop:*      20 CHF



**G.142 (12/98)** Transmission characteristics of exchanges  
12pp E 14726 F 14728 S 14730 12 CHF

**G.143 (11/88) Withdrawn (09/97)**

Circuit noise and the use of compandors

*Deleted because it deals with compandor transmission aspects, which use is no more recommended in networks*

*Individually through the Electronic Bookshop:* 20 CHF

*General characteristics of international telephone circuits and national extension circuits*

**G.151 (11/88) Withdrawn (03/99)**

General performance objectives applicable to all modern international circuits and national extension circuits

*Individually through the Electronic Bookshop:* 20 CHF

**G.152 (11/88) Withdrawn (03/99)**

Characteristics appropriate to long-distance circuits of a length not exceeding 2500 km

*Individually through the Electronic Bookshop:* 20 CHF

**G.153 (11/88) Withdrawn (03/99)**

Characteristics appropriate to international circuits more than 2500 km in length

*Individually through the Electronic Bookshop:* 20 CHF

*Apparatus associated with long-distance telephone circuits*

**G.161 (06/02)** Interaction aspects of signal processing network equipment  
32pp E 22751 F 22752 S 22753 17 CHF

**G.161 (10/76) Withdrawn (03/93)**

Echo-suppressors suitable for circuits having either short or long propagation times

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.162 (11/88) Withdrawn (02/99)**

Characteristics of compandors for telephony

*Individually through the Electronic Bookshop:* 20 CHF

**G.163 (11/88) Withdrawn (03/93)**

Call concentrating systems

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.164 (11/88)** Echo suppressors

*Individually through the Electronic Bookshop:* 22 CHF

**G.165 (03/93)** Echo cancellers

27pp E 4246 F 4245 S 4247 20 CHF

**G.166 (11/88) Withdrawn (02/99)**

Characteristics of syllabic compandors for telephony on high capacity long distance systems

*Deleted because it deals with compandor transmission aspects, which use is no more recommended in networks*

*Individually through the Electronic Bookshop:* 20 CHF

**G.167 (03/93)** Acoustic echo controllers

16pp E 4108 F 4107 S 4109 15 CHF

**G.168 (06/02)** Digital network echo cancellers

108pp E 23300 F 23301 S 23302 44 CHF

**G.169 (07/99)** Automatic level control devices

32pp E 16467 F 16468 S 16469 17 CHF

*Transmission plan aspects of special circuits and connections using the international telephone connection network*

**G.171 (11/88) Withdrawn (01/00)**

Transmission plan aspects of privately operated networks

*Deleted because it refers to obsolete Recommendations. For guidance on transmission planning or on private/public network interconnection, refer to ITU-T G.175 and G.108*

*Individually through the Electronic Bookshop:* 20 CHF

**G.172 (11/88)** Transmission plan aspects of international conference calls

*Individually through the Electronic Bookshop:* 20 CHF

**G.173 (03/93)** Transmission planning aspects of the speech service in digital public land mobile networks

18pp E 4871 F 4870 S 4872 15 CHF

**G.174 (06/94)** Transmission performance objectives for terrestrial digital wireless systems using portable terminals to access the PSTN

13pp E 5558 F 5557 S 5559 11 CHF

**G.175 (05/00)** Transmission planning for private/public network interconnection of voice traffic

20pp E 19394 F 19395 S 19396 12 CHF

**G.176 (04/97)** Planning guidelines for the integration of ATM technology into networks supporting voiceband services  
16pp E 11720 F 11721 S 11722 12 CHF

**G.177 (09/99)** Transmission planning for voiceband services over hybrid Internet/PSTN connections  
20pp E 17489 F 17490 S 17491 17 CHF

### *Protection and restoration of transmission systems*

**G.180 (03/93)** Characteristics of N + M type direct transmission restoration systems for use on digital and analogue sections, links or equipment  
12pp E 4090 F 4089 S 4091 11 CHF

**G.181 (03/93)** Characteristics of 1 + 1 type restoration systems for use on digital transmission links  
3pp E 4005 F 4004 S 4006 8 CHF

### *Software tools for transmission systems*

**G.191 (11/00)** Software tools for speech and audio coding standardization  
*This Recommendation includes 1 CD-ROM containing the software tools library (STL-2000). The STL-2000 Manual is freely available from this Website for information purpose.*  
16pp E 20702 F 20703 S 20704 62 CHF

**G.192 (03/96)** A common digital parallel interface for speech standardisation activities  
20pp E 6825 F 6826 S 6827 17 CHF

## **General characteristics common to all analogue carrier-transmission systems**

### *Definitions and general considerations*

**G.211 (11/88)** Make-up of a carrier link  
*Individually through the Electronic Bookshop:* 20 CHF

**G.212 (11/88)** Hypothetical reference circuits for analogue systems  
*Individually through the Electronic Bookshop:* 20 CHF

**G.213 (11/88)** Interconnection of systems in a main repeater station  
*Individually through the Electronic Bookshop:* 20 CHF

**G.214 (11/88)** Line stability of cable systems  
*Individually through the Electronic Bookshop:* 20 CHF

**G.215 (11/88)** Hypothetical reference circuit of 5000 km for analogue systems  
*Individually through the Electronic Bookshop:* 20 CHF

### *General Recommendations*

**G.221 (11/88)** Overall recommendations relating to carrier-transmission systems  
*Individually through the Electronic Bookshop:* 20 CHF

**G.222 (11/88)** Noise objectives for design of carrier-transmission systems of 2500 km  
*Individually through the Electronic Bookshop:* 20 CHF

**G.223 (11/88)** Assumptions for the calculation of noise on hypothetical reference circuits for telephony  
*Individually through the Electronic Bookshop:* 20 CHF

**G.224 (11/88)** Maximum permissible value for the absolute power level (power referred to one milliwatt) of a signalling pulse  
*This Recommendation was formerly also included in Q series under number Q.16*  
*Individually through the Electronic Bookshop:* 20 CHF

**G.225 (11/88)** Recommendations relating to the accuracy of carrier frequencies  
*Individually through the Electronic Bookshop:* 20 CHF

**G.226 (11/88)** Noise on a real link  
*Individually through the Electronic Bookshop:* 20 CHF

**G.227 (11/88)** Conventional telephone signal  
*Individually through the Electronic Bookshop:* 20 CHF

**G.228 (11/88)** Measurement of circuit noise in cable systems using a uniform-spectrum random noise loading  
*Individually through the Electronic Bookshop:* 20 CHF

**G.229 (11/88)** Unwanted modulation and phase jitter  
*Individually through the Electronic Bookshop:* 20 CHF

### *Translating equipment used on various carrier-transmission systems*

**G.230 (11/88)** Measuring methods for noise produced by modulating equipment and through-connection filters  
*Individually through the Electronic Bookshop:* 20 CHF

**G.231 (11/88)** Arrangement of carrier equipment  
*Individually through the Electronic Bookshop:* 20 CHF

**G.232 (11/88)** 12-channel terminal equipments  
*Individually through the Electronic Bookshop:* 20 CHF

**G.233 (11/88)** Recommendations concerning translating equipments  
*Individually through the Electronic Bookshop:* 20 CHF

**G.234 (10/76)    Withdrawn (03/93)**

8-channel terminal equipments

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.235 (11/88)    Withdrawn (03/93)**

16-channel terminal equipments

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

*Utilization of groups, supergroups, etc.*

**G.241 (11/88)**    Pilots on groups, supergroups, etc.

*Individually through the Electronic Bookshop:*    20 CHF

**G.242 (11/88)**    Through-connection of groups, supergroups, etc.

*Individually through the Electronic Bookshop:*    20 CHF

**G.243 (11/88)**    Protection of pilots and additional measuring frequencies at points where there is a through-connection

*Individually through the Electronic Bookshop:*    20 CHF

**Individual characteristics of international carrier telephone systems on metallic lines**

**G.311 (11/88)    Withdrawn (03/93)**

General characteristics of systems providing 12 carrier telephone circuits on an open-wire pair

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.312 (11/88)    Withdrawn (03/93)**

Intermediate repeaters for open-wire carrier systems conforming to Recommendation G.311

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.313 (11/88)    Withdrawn (03/93)**

Open-wire lines for use with 12-channel carrier systems

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.314 (10/76)    Withdrawn (03/93)**

General characteristics of systems providing eight carrier telephone circuits on an open-wire pair

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

*Carrier telephone systems on unloaded symmetric cable pairs, providing groups or supergroups*

**G.322 (11/88)**    General characteristics recommended for systems on symmetric pair cables

*Individually through the Electronic Bookshop:*    20 CHF

**G.323 (11/88)    Withdrawn (03/93)**

A typical transistorized system on symmetric cable pairs

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.324 (10/76)    Withdrawn (03/93)**

General characteristics for valve-type systems on symmetric cable pairs

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.325 (11/88)**    General characteristics recommended for systems providing 12 telephone carrier circuits on a symmetric cable pair [(12 + 12) systems]

*Individually through the Electronic Bookshop:*    20 CHF

**G.326 (11/88)    Withdrawn (03/93)**

Typical systems on symmetric cable pairs [(12 + 12) systems]

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.327 (10/76)    Withdrawn (03/93)**

Valve-type systems offering 12 carrier telephone circuits on a symmetric cable pair [(12 + 12) systems]

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

*Carrier systems on 2.6/9.5 mm coaxial cable pairs*

**G.332 (11/88)**    12 MHz systems on standardized 2.6/9.5 mm coaxial cable pairs

*Individually through the Electronic Bookshop:*    20 CHF

**G.333 (11/88)**    60 MHz systems on standardized 2.6/9.5 mm coaxial cable pairs

*Individually through the Electronic Bookshop:*    20 CHF

**G.334 (11/88)** 18 MHz systems on standardized  
2.6/9.5 mm coaxial cable pairs

*Individually through the Electronic Bookshop:* 20 CHF

**G.337 (10/76) Withdrawn (03/93)**

General characteristics of systems on 2.6/9.5 mm  
coaxial cable pairs

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.338 (10/76) Withdrawn (03/93)**

4 MHz valve-type systems on standardized  
2.6/9.5 mm coaxial cable pairs

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.339 (10/76) Withdrawn (03/93)**

12 MHz valve-type systems on standardized  
2.6/9.5 mm coaxial cable pairs

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

### *Carrier systems on 1.2/4.4 mm coaxial cable pairs*

**G.341 (11/88)** 1.3 MHz systems on standardized  
1.2/4.4 mm coaxial cable pairs

*Individually through the Electronic Bookshop:* 20 CHF

**G.343 (11/88)** 4 MHz systems on standardized  
1.2/4.4 mm coaxial cable pairs

*Individually through the Electronic Bookshop:* 20 CHF

**G.344 (11/88)** 6 MHz systems on standardized  
1.2/4.4 mm coaxial cable pairs

*Individually through the Electronic Bookshop:* 20 CHF

**G.345 (11/88)** 12 MHz systems on standardized  
1.2/4.4 mm coaxial cable pairs

*Individually through the Electronic Bookshop:* 20 CHF

**G.346 (11/88)** 18 MHz systems on standardized  
1.2/4.4 mm coaxial cable pairs

*Individually through the Electronic Bookshop:* 20 CHF

### *Additional Recommendations on cable systems*

**G.352 (11/88)** Interconnection of coaxial carrier  
systems of different designs

*Individually through the Electronic Bookshop:* 20 CHF

**G.356 (11/80) Withdrawn (03/93)**  
(120 + 120) channel systems on a single coaxial pair

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.361 (11/88) Withdrawn (03/93)**

Systems providing three carrier telephone circuits on  
a pair of open-wire lines

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.371 (11/88) Withdrawn (03/93)**

FDM carrier systems for submarine cable

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

### **General characteristics of international carrier telephone systems on radio-relay or satellite links and interconnection with metallic lines**

### *General Recommendations*

**G.411 (11/88)** Use of radio-relay systems for  
international telephone circuits

*Individually through the Electronic Bookshop:* 20 CHF

**G.412 (11/88) Withdrawn (03/93)**

Terminal equipments of radio-relay systems forming  
part of a general telecommunication network

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

### *Interconnection of radio-relay links with carrier systems on metallic lines*

**G.421 (11/88)** Methods of interconnection

*Individually through the Electronic Bookshop:* 20 CHF

**G.422 (11/88)** Interconnection at audio-frequencies

*Individually through the Electronic Bookshop:* 20 CHF

**G.423 (11/88)** Interconnection at the baseband  
frequencies of frequency-division multiplex radio-  
relay systems

*Individually through the Electronic Bookshop:* 20 CHF

## *Hypothetical reference circuits*

**G.431 (11/88)** Hypothetical reference circuits for frequency-division multiplex radio-relay systems

*Individually through the Electronic Bookshop:* 20 CHF

**G.433 (06/64) Withdrawn (03/93)**

Hypothetical reference circuit for trans-horizon radio-relay systems for telephony using frequency-division multiplex

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.434 (06/64) Withdrawn (03/93)**

Hypothetical reference circuit for systems using analogue transmission in the fixed-satellite service

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

## *Circuit noise*

**G.441 (11/88)** Permissible circuit noise on frequency-division multiplex radio-relay systems

*Individually through the Electronic Bookshop:* 20 CHF

**G.442 (11/88)** Radio-relay system design objectives for noise at the far end of a hypothetical reference circuit with reference to telegraphy transmission

*Individually through the Electronic Bookshop:* 20 CHF

**G.444 (06/64) Withdrawn (03/93)**

Allowable noise power in the hypothetical reference circuit of trans-horizon radio-relay systems for telephony using frequency-division multiplex

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.445 (06/64) Withdrawn (03/93)**

Allowable noise power in the hypothetical reference circuit for frequency-division multiplex telephony in the fixed-satellite service

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

## **Coordination of radiotelephony and line telephony**

### *Radiotelephone circuits*

**G.451 (11/88)** Use of radio links in international telephone circuits

*Individually through the Electronic Bookshop:* 20 CHF

**G.453 (11/88) Withdrawn (03/93)**

Improved transmission system for HF radio-telephone circuits

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.464 (11/88) Withdrawn (03/93)**

Principles of the devices used to achieve privacy in radiotelephone conversations

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

### *Links with mobile stations*

**G.473 (11/88) Withdrawn (09/97)**

Interconnection of a maritime mobile satellite system with the international automatic switched telephone service; transmission aspects

*Withdrawn because it provided transmission planning information that was obsolete and no longer used*

*Individually through the Electronic Bookshop:*

## **Supplements to Sections 2 to 5 of the Series G Recommendations**

**Suppl. 4 (12/72)** Certain methods of avoiding the transmission of excessive noise between interconnected systems

*Green Book Volume III.2, page 572*

**Suppl. 5 (10/84)** Measurement of the load of telephone circuits under field conditions

*Red Book Fascicle III.2, page 295*

**Suppl. 7 (12/72)** Loss-frequency response of channel-translating equipment used in some countries for international circuits

*Green Book Volume III.2, page 590*

**Suppl. 8 (12/72)** Method proposed by the Belgian telephone administration for interconnection between coaxial and symmetric pair systems

*Green Book Volume III.2, page 591*



**Suppl. 13 (10/76)** Noise at the terminals of the battery supply

*Orange Book Fascicle III.3, page 664*

**Suppl. 17 (10/84)** Group-delay distortion performance of terminal equipment

*Red Book Fascicle III.2, page 311*

**Suppl. 22 (10/84)** Mathematical models of multiplex signals

*Red Book Fascicle III.2, page 326*

**Suppl. 26 (10/84)** Estimating the signal load margin of FDM wideband amplifier equipment and transmission systems

*Red Book Fascicle III.2, page 344*

**Suppl. 27 (10/84)** Interference from external sources

*This Supplement is also published as G.900 series supplement in Red Book fascicle III.3*

*Red Book Fascicle III.2, page 346*

## Testing equipments

**G.511 (02/98)** Test methodology for Group 3 facsimile processing equipment in the Public Switched Telephone Network

*This Recommendation was renumbered as ITU-T Rec. T.5 on 2002-02-15 without further modification*

40pp      E 13076    F 13077    S 13078      22 CHF

**G.541 (10/76)      Withdrawn (03/93)**  
Specification of factory lengths of loaded telecommunication cable

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.542 (10/76)      Withdrawn (03/93)**  
Specification of loading coils for loaded telecommunication cables

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.543 (10/76)      Withdrawn (03/93)**  
Specification for repeater sections of loaded telecommunication cable

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**G.544 (10/76)      Withdrawn (03/93)**  
Specifications for terminal equipment and intermediate repeater stations

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

## Transmission media characteristics

### General

**G.601 (11/88)** Terminology for cables

*Individually through the Electronic Bookshop:*      20 CHF

**G.602 (11/88)** Reliability and availability of analogue cable transmission systems and associated equipments

*Individually through the Electronic Bookshop:*      20 CHF

**G.611 (11/88)** Characteristics of symmetric cable pairs for analogue transmission

*Individually through the Electronic Bookshop:*      20 CHF

**G.612 (11/88)** Characteristics of symmetric cable pairs designed for the transmission of systems with bit rates of the order of 6 to 34 Mbit/s

*Individually through the Electronic Bookshop:*      20 CHF

**G.613 (11/88)** Characteristics of symmetric cable pairs usable wholly for the transmission of digital systems with a bit rate of up to 2 Mbits

*Individually through the Electronic Bookshop:*      20 CHF

**G.614 (11/88)** Characteristics of symmetric pair star-quadrant cables designed earlier for analogue transmission systems and being used now for digital system transmission at bit rates of 6 to 34 Mbit/s

*Individually through the Electronic Bookshop:*      20 CHF

### Land coaxial cable pairs

**G.621 (11/88)** Characteristics of 0.7/2.9 mm coaxial cable pairs

*Individually through the Electronic Bookshop:*      20 CHF

**G.622 (11/88)** Characteristics of 1.2/4.4 mm coaxial cable pairs

*Individually through the Electronic Bookshop:*      20 CHF

**G.623 (11/88)** Characteristics of 2.6/9.5 mm coaxial cable pairs

*Individually through the Electronic Bookshop:*      20 CHF



## Submarine cables

**G.631 (11/88)** Types of submarine cable to be used for systems with line frequencies of less than about 45 MHz

*Individually through the Electronic Bookshop:* 20 CHF

**G.641 (11/88) Withdrawn (03/93)**

Waveguide diameters

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

## Optical fibre

**G.650.1 (06/02)** Definitions and test methods for linear, deterministic attributes of single-mode fibre and cable

*Results from the subdivision of ITU-T Rec. G.650 (2000-10)*

68pp E 22714 F 22715 S 22716 29 CHF

**G.650.1 (2002) Amendment 1 (03/03)**

11pp E 23877 F 23878 S 23879 9 CHF

**G.650.2 (06/02)** Definitions and test methods for statistical and non-linear attributes of single-mode fibre and cable

*Results from the subdivision of ITU-T Rec. G.650 (2000-10)*

56pp E 22691 F 22692 S 22693 29 CHF

**G.650.2 (2002) Amendment 1 (03/03)**

10pp E 23957 F 23958 S 23959 9 CHF

## Optical fibre cables

**G.651 (02/98)** Characteristics of a 50/125 µm multimode graded index optical fibre cable

36pp E 13535 F 13536 S 13537 22 CHF

## Optical fibre

**G.652 (03/03)** Characteristics of a single-mode optical fibre and cable

20pp E 23916 F 23917 S 23918 12 CHF

## Optical fibre cables

**G.653 (12/03)** Characteristics of a dispersion-shifted single-mode optical fibre and cable

20pp E 25029 F 25030 S 25031 12 CHF

**G.653 (10/00)** Characteristics of a dispersion-shifted single-mode optical fibre cable

16pp E 19857 F 19858 S 19859 12 CHF

## Optical fibre

**G.654 (06/02)** Characteristics of cut-off shifted single-mode optical fibre and cable

24pp E 22694 F 22695 S 22696 17 CHF

**G.655 (03/03)** Characteristics of a non-zero dispersion-shifted single-mode optical fibre and cable

19pp E 24155 F 24156 S 24157 12 CHF

## Characteristics of optical components and subsystems

**G.661 (10/98)** Definition and test methods for the relevant generic parameters of optical amplifier devices and subsystems

16pp E 14732 F 14733 S 14734 12 CHF

**G.662 (10/98)** Generic characteristics of optical amplifier devices and subsystems

16pp E 14629 F 14630 S 14631 12 CHF

**G.663 (04/00)** Application related aspects of optical amplifier devices and subsystems

40pp E 19770 F 19771 S 19772 22 CHF

## Optical fibre cables

**G.663 (2000) Amendment 1 (01/03)** Amendments to Appendix II

10pp E 23499 F 23500 S 23501 9 CHF

## Characteristics of optical components and subsystems

**G.664 (03/03)** Optical safety procedures and requirements for optical transport systems

25pp E 24177 F 24178 S 24179 17 CHF

**G.671 (06/02)** Transmission characteristics of optical components and subsystems

50pp E 22587 F 22588 S 22589 22 CHF

**G.691 (12/03)** Optical interfaces for single channel STM-64 and other SDH systems with optical amplifiers

50pp E 25097 22 CHF

## Characteristics of optical components and subsystems

**G.692 (10/98)** Optical interfaces for multichannel systems with optical amplifiers

*Covering note, 07.01.2000: Corrigendum 1*

40pp E 14418 F 14419 S 14420 22 CHF

**G.692 (1998) Corrigendum 1 (01/00)**

## Characteristics of optical components and subsystems

### G.692 (1998) Corrigendum 2 (06/02)

## Characteristics of optical components and subsystems

**G.693 (11/01)** Optical interfaces for intra-office systems  
24pp E 21878 F 21879 S 21880 17 CHF

**G.693 (12/03)** Optical interfaces for intra-office systems  
26pp E 25100 F 25101 S 25102 17 CHF

**G.694.1 (06/02)** Spectral grids for WDM applications: DWDM frequency grid  
14pp E 22348 F 22349 S 22350 12 CHF

**G.694.2 (12/03)** Spectral grids for WDM applications: CWDM wavelength grid  
12pp E 24851 F 24851 S 24853 9 CHF

**G.695 (02/04)** Optical interfaces for coarse wavelength division multiplexing applications  
42pp E 25326 22 CHF

## Supplements to Section 6 of the Series G Recommendations

**Suppl. 19 (10/84)** Digital crosstalk measurement (method used by the Administrations of France, the Netherlands and Spain)

*Red Book Fascicle III.2, page 326*

## Digital terminal equipments

### General

**G.700 (11/88) Withdrawn (03/93)**  
Framework of the series G.700, G.800 and G.900 Recommendations

*Deleted after its content became technically out of date*

**G.701 (03/93)** Vocabulary of digital transmission and multiplexing, and pulse code modulation (PCM) terms  
37pp E 4350 F 4349 S 4351 20 CHF

**G.702 (11/88)** Digital hierarchy bit rates  
*Individually through the Electronic Bookshop:* 20 CHF

### General

**G.703 (11/01)** Physical/electrical characteristics of hierarchical digital interfaces  
62pp E 22057 F 22058 S 22059 29 CHF

### General

**G.704 (10/98)** Synchronous frame structures used at 1544, 6312, 2048, 8448 and 44 736 kbit/s hierarchical levels  
44pp E 15440 F 15441 S 15442 22 CHF

**G.705 (11/88) Withdrawn (10/96)**  
Characteristics required to terminate digital links on a digital exchange

*The content of this Recommendation is now covered by ITU-T Q.500 series, and more specifically Q.554*

**G.705 (10/00)** Characteristics of plesiochronous digital hierarchy (PDH) equipment functional blocks  
204pp E 20964 F 20965 S 20966 73 CHF

**G.706 (04/91)** Frame alignment and cyclic redundancy check (CRC) procedures relating to basic frame structures defined in Recommendation G.704  
16pp E 2101 F 2100 S 2102 13 CHF

### General

**G.707/Y.1322 (12/03)** Network node interface for the synchronous digital hierarchy (SDH)  
192pp E 25300 73 CHF

### General

**G.708 (03/93) Withdrawn (03/96)**  
Network node interface for the synchronous digital hierarchy  
*Merged with ITU-T G.707 in 1993*

**G.708 (07/99)** Sub STM-0 network node interface for the synchronous digital hierarchy (SDH)  
20pp E 16300 F 16301 S 16302 17 CHF

**G.709 (03/93) Withdrawn (03/96)**  
Synchronous multiplexing structure  
*Merged with ITU-T G.707 in 1993*

### General

**G.709/Y.1331 (03/03)** Interfaces for the Optical Transport Network (OTN)  
117pp E 25054 F 25055 S 25056 44 CHF

## General

### G.709/Y.1331 (2003) Amendment 1 (12/03)

To be published...

## Coding of analogue signals by pulse code modulation

**G.711 Appendix I (09/99)** A high quality low-complexity algorithm for packet loss concealment with G.711

24pp E 17350 F 17351 S 17352 17 CHF

**G.711 Appendix II (02/00)** A comfort noise payload definition for ITU-T G.711 use in packet-based multimedia communication systems

16pp E 18278 F 18279 S 18280 12 CHF

**G.711 (11/88)** Pulse code modulation (PCM) of voice frequencies

*Corresponding ANSI-C code is available in the G.711 module of the ITU-T G.191 Software Tools Library.*

*Individually through the Electronic Bookshop:* 20 CHF

**G.712 (11/01)** Transmission performance characteristics of pulse code modulation channels

40pp E 22088 F 22089 S 22090 22 CHF

### G.712 (11/88) Withdrawn (03/93)

Performance characteristics of PCM channels between 4-wire interfaces at voice frequencies

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

### G.713 (11/88) Withdrawn (03/93)

Performance characteristics of PCM channels between 2-wire interfaces at voice frequencies

*The content of this Recommendation is now covered by ITU-T G.712*

*Individually through the Electronic Bookshop:*

### G.714 (11/88) Withdrawn (03/93)

Separate performance characteristics for the encoding and decoding sides of PCM channels applicable to 4-wire voice-frequency interfaces

*The content of this Recommendation is now covered by ITU-T G.712*

*Individually through the Electronic Bookshop:*

### G.715 (11/88) Withdrawn (03/93)

Separate performance characteristics for the encoding and decoding side of PCM channels applicable to 2-wire interfaces

*The content of this Recommendation is now covered by ITU-T G.712*

*Individually through the Electronic Bookshop:*

## Coding of analogue signals by methods other than PCM

**G.720 (07/95)** Characterization of low-rate digital voice coder performance with non-voice signals

15pp E 6187 F 6186 S 6188 15 CHF

### G.721 (11/88) Withdrawn (03/93)

32 kbit/s adaptive differential pulse code modulation (ADPCM)

*The content of this Recommendation is now covered by ITU-T G.726*

*Individually through the Electronic Bookshop:*

**G.722 Annex A (03/93)** Testing signal-to-total distortion ratio for 7 kHz audio-codecs at 64 kbit/s Recommendation G.722 connected back-to-back

3pp E 4117 F 4116 S 4118 8 CHF

**G.722 Appendix II (03/87)** Digital test sequences for the verification of the G.722 64 kbit/s SB-ADPCM 7 kHz codec

*This document corresponds to ITU-T Rec. G.722 Appendix II which was published in the Blue Book (1988). It includes one diskette containing the digital test sequences for the verification of the G.722 SB-ADPCM codec.*

16pp E 10036 F 10037 S 10038 52 CHF

*Coding of analogue signals by methods other than PCM*

**G.722 (1988) Erratum 1 (05/03)**

*Coding of analogue signals by methods other than PCM*

**G.722 (11/88)** 7 kHz audio-coding within 64 kbit/s  
Corresponding ANSI-C code is available in the G722 module of the ITU-T G.191 Software Tools Library  
Individually through the Electronic Bookshop: 34 CHF

**G.722.1 (09/99)** Coding at 24 and 32 kbit/s for hands-free operation in systems with low frame loss  
Covering note, 17 November 2000.  
This Recommendation includes an electronic attachment containing the reference code (release 1.2) and the test vectors for ITU-T G.722.1 algorithm implementation verification. This release includes the corrections indicated in corrigendum 1 (11/2000)

1pp E 17335 F 17336 S 17337 142 CHF

**G.722.1 Annex A (02/00)** Packet format, capability identifiers and capability parameters  
8pp E 18030 F 18031 S 18032 9 CHF

**G.722.1 Annex B (11/00)** Floating-point implementation for G.722.1  
This annex includes an electronic attachment containing the reference code and the test vectors for ITU-T G.722.1/Annex B floating-point algorithm implementation verification  
8pp E 22251 F 22252 S 22253 59 CHF

**G.722.1 (1999) Corrigendum 1 (11/00)**

*Coding of analogue signals by methods other than PCM*

**G.722.2 (07/03)** Wideband coding of speech at around 16 kbit/s using Adaptive Multi-Rate Wideband (AMR-WB)  
To be published...

*Coding of analogue signals by methods other than PCM*

**G.722.2 Annex A (01/02)** Comfort noise aspects  
18pp E 22293 F 22294 S 22295 12 CHF

**G.722.2 Annex B (01/02)** Source Controlled Rate operation  
16pp E 22230 F 22231 S 22232 12 CHF

*Coding of analogue signals by methods other than PCM*

**G.722.2 Annex B (2002) Erratum 1 (07/03)**

**G.722.2 Annex C (03/04)** Fixed-point C-code  
E 25317 67 CHF

*Coding of analogue signals by methods other than PCM*

**G.722.2 Annex D (01/02)** Digital test sequences

This Annex includes an electronic attachment containing the digital test sequences for a bit-exact implementation of the G.722.2 adaptive multi-rate wideband (AMR-WB) speech transcoder, voice activity detection, comfort noise generation, and source controlled rate operation, version 5.3.0. Test sequences are freely available on the ITU publications website. They are also available for a fee on a CD-ROM from the ITU Sales department at sales@itu.int

14pp E 22179 F 22180 S 22181 59 CHF

*Coding of analogue signals by methods other than PCM*

**G.722.2 Annex D (07/03)** Digital test sequences

This Annex includes an electronic attachment containing the digital test sequences for a bit-exact implementation of the G.722.2 adaptive multi-rate wideband (AMR-WB) speech transcoder, voice activity detection, comfort noise generation, and source controlled rate operation, version 5.7.0. Test sequences are freely available on the ITU publications website. They are also available for a fee on a CD-ROM from the ITU Sales department at sales@itu.int

E 25194 F 25192 S 25193

*Coding of analogue signals by methods other than PCM*

**G.722.2 Annex E (01/02)** Frame structure

28pp E 22236 F 22237 S 22238 17 CHF

*Coding of analogue signals by methods other than PCM*

**G.722.2 Annex E (2002) Corrigendum 1 (07/03)**

Published as a covering note

*Coding of analogue signals by methods other than PCM*

**G.722.2 Annex F (11/02)** AMR-WB usage in H.245  
12pp E 23273 F 23274 S 23275 9 CHF

*Coding of analogue signals by methods other than PCM*

**G.722.2 Appendix I (02/02)** Error concealment of erroneous or lost frames  
18pp E 22227 F 22228 S 22229 12 CHF

## G.722.2 Appendix I (2002) Amendment 1 (07/03)

*Published as a covering note*

1pp      E 25221    F 25222    S 25223      9 CHF

## *Coding of analogue signals by methods other than PCM*

### G.723 Speech coders

#### **G.723 (11/88)    Withdrawn (03/93)**

Extensions of Recommendation G.721 adaptive differential pulse code modulation to 24 and 40 kbit/s for digital circuit multiplication equipment application

*The content of 1988 edition of ITU-T G.723 is now covered by ITU-T G.726*

*Individually through the Electronic Bookshop:*

#### **G.723.1 (03/96)**    Dual rate speech coder for multimedia communications transmitting at 5.3 and 6.3 kbit/s

*Test vectors, test sequences and C Reference code described in this Recommendation are common to Recommendation main body and to Annex A, and may be found on 3 diskettes included with G.723.1 Annex A.*

32pp      E 6839      F 6840      S 6841      17 CHF

#### **G.723.1 Annex A (11/96)**    Silence compression scheme

*This Annex includes 3 diskettes which are common to Recommendation main body and to this annex and which contain test vectors and C reference code for implementation verification of the G.723.1 fixed point dual rate speech coder for multimedia communications.*

20pp      E 10039    F 10040    S 10041      104 CHF

#### **G.723.1 Annex B (11/96)**    Alternative specification based on floating point arithmetic

*This Annex includes one CD-ROM containing the reference code and the test vectors for implementation verification of the G.723.1 floating point speech coder. The CD-ROM may be replaced on demand by 14 diskettes.*

8pp      E 10042    F 10043    S 10044      134 CHF

#### **G.723.1 Annex C (11/96)**    Scalable channel coding scheme for wireless applications

*This Annex includes one diskette containing the reference code and the test vectors for implementation verification of the scalable channel coding scheme.*

24pp      E 10045    F 10046    S 10047      57 CHF

#### **G.724 (11/88)**    Characteristics of a 48-channel low bit rate encoding primary multiplex operating at 1544 kbit/s

*Individually through the Electronic Bookshop:*    20 CHF

#### **G.725 (11/88)**    System aspects for the use of the 7 kHz audio codec within 64 kbit/s

*Individually through the Electronic Bookshop:*    20 CHF

#### **G.726 (12/90)**    40, 32, 24, 16 kbit/s adaptive differential pulse code modulation (ADPCM)

*Corresponding ANSI-C code is available in the G.726 module of the ITU-T G.191 Software Tools Library*

57pp      E 1951      F 1950      S 1952      21 CHF

#### **G.726 Annex A (11/94)**    Extensions of Recommendation G.726 for use with uniform-quantized input and output

5pp      E 5879      F 5878      S 5880      8 CHF

## *Coding of analogue signals by methods other than PCM*

#### **G.726 Annex B (07/03)**    Packet format, capability identifier and capability parameters for H.245 signalling

10pp      E 24457    F 24458    S 24459      9 CHF

## *Coding of analogue signals by methods other than PCM*

#### **G.726 Appendix III (05/94)**    Comparison of ADPCM algorithms

*This Appendix is published with the double number G.726 App. III and G.727 App. II*

41pp      E 5660      F 5658      S 5662      20 CHF

#### **G.726 Appendix II Test vectors (03/91)**    Digital test sequences for the verification of the G.726 40, 32, 24 and 16 kbit/s ADPCM algorithm

*This document corresponds to G.726 Appendix II. It includes 2 diskettes containing respectively the A-Law and Mu-Law digital test sequences for the verification of the G.726 ADPCM codec implementations. The document reproduces the user guide published in the CCITT collective letter No. 11/XV (1991).*

E 10195    F 10196    S 10197      67 CHF

#### **G.727 (12/90)**    5-, 4-, 3- and 2-bit/sample embedded adaptive differential pulse code modulation (ADPCM)

*Corresponding ANSI-C code is available in the G.727 module of the ITU-T G.191 Software Tools Library*

55pp      E 1975      F 1974      S 1976      21 CHF



**G.727 Annex A (11/94)** Extensions of Recommendation G.727 for use with uniform-quantized input and output

5pp      E 5882      F 5881      S 5883      8 CHF

**G.727 Appendix II (05/94)** Comparison of ADPCM algorithms

*This Appendix is published with the double number G.726 App. III and G.727 App. II*

41pp      E 5660      F 5658      S 5662      20 CHF

**G.727 Appendix I Test vectors (03/91)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's

*This document corresponds to G.727 Appendix I. It includes 6 diskettes containing digital test sequences for the verification of the G.727 embedded ADPCM codec implementations. The document reproduces the user guide published in the CCITT collective letter No. 12/XV (1991).*

E 10198      F 10199      S 10200      115 CHF

**G.728/G.Imp728 (09/92)** Coding of speech at 16 kbit/s using low-delay code excited linear prediction

63pp      E 2991      F 2984      S 2998      24 CHF

**G.728 Annex G (11/94)** 16 kbit/s fixed point specification

64pp      E 6087      F 6086      S 6088      30 CHF

**G.728 Annex G (1994) Corrigendum 1 (02/00)**

**G.728 Annex H (05/99)** Variable bit rate LD-CELP operation mainly for DCME at rates less than 16 kbit/s

*This Annex includes 1 CD-ROM containing the test data for verification of G.728 Annex H low bit rate LD-CELP implementations.*

16pp      E 17226      F 17227      S 17222      137 CHF

**G.728 Annex I (05/99)** Frame or packet loss concealment for the LD-CELP decoder

24pp      E 16868      F 16869      S 16870      17 CHF

**G.728 Annex J (09/99)** Variable bit-rate operation of LD-CELP mainly for voiceband-data applications in DCME

*This Annex includes 1 CD-ROM containing the test vectors for verification of G.728 Annex J variable bit-rate LD-CELP implementations.*

38pp      E 17560      F 17561      S 17562      147 CHF

**G.728 Appendix II (11/95)** Speech performance

8pp      E 6766      F 6767      S 6768      9 CHF

**G.728 Appendix I Software (07/95)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's

*This document corresponds to G.728 Appendix I. It includes 4 diskettes containing programs and test sequences for verification of the floating point and fixed point implementations of the G.728 LD-CELP algorithm. The document reproduces the user guide published in the CCITT collective letter No. 17/XV (1992).*

12pp      E 10201      F 10202      S 10203      85 CHF

**G.729 (03/96)** Coding of speech at 8 kbit/s using conjugate-structure algebraic-code-excited linear-prediction (CS-ACELP)

*This Recommendation includes 3 diskettes containing source code and test sequences for implementation verification of the algorithm of the G.729 8 kbit/s CS-ACELP speech coder.*

40pp      E 10204      F 10205      S 10206      92 CHF

**G.729 Annex A (11/96)** Reduced complexity 8 kbit/s CS-ACELP speech codec

*This Annex includes 3 diskettes containing source code and test sequences for implementation verification of the algorithm of the G.729 reduced complexity 8 kbit/s CS-ACELP speech coder.*

12pp      E 10207      F 10208      S 10209      82 CHF

**G.729 Annex B (10/96)** A silence compression scheme for G.729 optimized for terminals conforming to Recommendation V.70

*This Annex includes 1 electronic attachment containing source code and test sequences for implementation verification of the algorithm of the G.729 Silence compression scheme version 1.4, which reflects modifications given in Corrigendum 2 (02/2000).*

E 13373      F 13375      S 13376      57 CHF

*Coding of analogue signals by methods other than PCM*

**G.729 Annex B (1996) Corrigendum 1 (02/98)**

To be published...

**G.729 Annex B (1996) Corrigendum 2 (02/00)**

*This corrigendum concerns only the software; the resulting version 1.4 is included in the published ITU-T Recommendation G.729 Annex B (10/1996)*



*Coding of analogue signals by methods other than PCM*

**G.729 Annex B (1996) Corrigendum 3 (03/01)**

**G.729 Annex C+ (02/00)** Reference floating-point implementation for integrating G.729 CS-ACELP speech coding main body with Annexes B, D and E

*This annex includes an electronic attachment containing version 2.1 of reference C code for floating point implementation of CS-ACELP at 6.4/8/11.8 kbit/s with DTX functionality.*

16pp      E 17771    F 17772    S 17773    137 CHF

**G.729 Annex C+ (2000) Corrigendum 1 (03/01)**

**G.729 Annex D (09/98)** 6.4 kbit/s CS-ACELP speech coding algorithm

*This Annex includes one electronic attachment containing version 1.3 of source C code for fixed point implementation of the G.729 6.4 kbit/s CS-ACELP speech coder, which reflects modifications given in Corrigendum 1 (02/2000).*

14pp      E 14247    F 14248    S 14249    52 CHF

*Coding of analogue signals by methods other than PCM*

**G.729 Annex D (1998) Corrigendum 1 (02/00)**

*This corrigendum concerns only the software; the resulting version 1.3 is included in the published ITU-T Recommendation G.729 Annex D (09/1998)*

*Coding of analogue signals by methods other than PCM*

**G.729 Annex E (09/98)** 11.8 kbit/s CS-ACELP speech coding algorithm

*This Annex includes one electronic attachment containing version 1.3 of source C code and test vectors for fixed point implementation of the G.729 11.8 kbit/s CS-ACELP speech coder, which reflects modifications given in Corrigendum 1 (02/2000).*

28pp      E 14448    F 14449    S 14450    57 CHF

*Coding of analogue signals by methods other than PCM*

**G.729 Annex E (1998) Corrigendum 1 (02/00)**

*This corrigendum concerns only the software; the resulting version 1.3 is included in the published ITU-T Recommendation G.729 Annex E (09/1998)*

*Coding of analogue signals by methods other than PCM*

**G.729 Annex F (02/00)** Reference implementation of G.729 Annex B DTX functionality for Annex D

*This annex includes an electronic attachment containing version 1.1 of reference C code and test vectors for fixed point implementation of CS-ACELP at 6.4 kbit/s 8 kbit/s with DTX functionality.*

8pp      E 17831    F 17832    S 17833    134 CHF

**G.729 Annex F (2000) Corrigendum 1 (03/01)**

**G.729 Annex G (02/00)** Reference implementation of G.729 Annex B DTX functionality for Annex E

*This annex includes an electronic attachment containing version 1.1 of reference C code and test vectors for fixed point implementation of CS-ACELP at 8 kbit/s and 11.8 kbit/s with DTX functionality.*

16pp      E 17949    F 17950    S 17951    137 CHF

**G.729 Annex G (2000) Corrigendum 1 (03/01)**

**G.729 Annex H (02/00)** Reference implementation of switching procedure between G.729 Annexes D and E

*This annex includes an electronic attachment containing version 1.1 of reference C code and test vectors for fixed point implementation of CS-ACELP at 6.4 kbit/s 8 kbit/s and 11.8 kbit/s without DTX functionality.*

E 17838    F 17839    S 17840    134 CHF

**G.729 Annex I (02/00)** Reference fixed-point implementation for integrating G.729 CS-ACELP speech coding main body with Annexes B, D and E

*This annex includes an electronic attachment containing version 1.1 of reference C code and test vectors for fixed point implementation of CS-ACELP at 6.4 kbit/s 8 kbit/s and 11.8 kb/s with DTX functionality.*

16pp      E 17828    F 17829    S 17830    137 CHF

**G.729 Annex I (2000) Corrigendum 1 (03/01)**

**G.729 Appendix I (06/01)** Appendix I: External synchronous reset performance for G.729 codecs in systems using external VAD/DTX/CNG

12pp      E 21746    F 21747    S 21748    9 CHF

**G.729 Annex C Encl. (09/98)** Reference floating-point implementation for G.729 CS-ACELP 8 kbit/s speech coding

*This Annex includes 1 diskette containing version 1.01 of reference C code for floating point implementation of the G.729 8 kbit/s CS-ACELP speech coder.*

*Diskette + Annex.*

E 14244 F 14245 S 14246 49 CHF

### *Principal characteristics of primary multiplex equipment*

**G.731 (11/88)** Primary PCM multiplex equipment for voice frequencies

*Individually through the Electronic Bookshop: 20 CHF*

**G.732 (11/88)** Characteristics of primary PCM multiplex equipment operating at 2048 kbit/s

*Individually through the Electronic Bookshop: 20 CHF*

**G.733 (11/88)** Characteristics of primary PCM multiplex equipment operating at 1544 kbit/s

*Individually through the Electronic Bookshop: 20 CHF*

**G.734 (11/88)** Characteristics of synchronous digital multiplex equipment operating at 1544 kbit/s

*Individually through the Electronic Bookshop: 20 CHF*

**G.735 (11/88)** Characteristics of primary PCM multiplex equipment operating at 2048 kbit/s and offering synchronous digital access at 384 kbit/s and/or 64 kbit/s

*Individually through the Electronic Bookshop: 20 CHF*

**G.736 (03/93)** Characteristics of a synchronous digital multiplex equipment operating at 2048 kbit/s

6pp E 4293 F 4292 S 4294 8 CHF

**G.737 (11/88)** Characteristics of an external access equipment operating at 2048 kbit/s offering synchronous digital access at 384 kbit/s and/or 64 kbit/s

*Individually through the Electronic Bookshop: 20 CHF*

**G.738 (11/88)** Characteristics of primary PCM multiplex equipment operating at 2048 kbit/s and offering synchronous digital access at 320 kbit/s and/or 64 kbit/s

*Individually through the Electronic Bookshop: 20 CHF*

**G.739 (11/88)** Characteristics of an external access equipment operating at 2048 kbit/s offering synchronous digital access at 320 kbit/s and/or 64 kbit/s

*Individually through the Electronic Bookshop: 20 CHF*

### *Principal characteristics of second order multiplex equipment*

**G.741 (11/88)** General considerations on second order multiplex equipments

*Individually through the Electronic Bookshop: 20 CHF*

**G.742 (11/88)** Second order digital multiplex equipment operating at 8448 kbit/s and using positive justification

*Individually through the Electronic Bookshop: 20 CHF*

**G.743 (11/88)** Second order digital multiplex equipment operating at 6312 kbit/s and using positive justification

*Individually through the Electronic Bookshop: 20 CHF*

**G.744 (11/88)** Second order PCM multiplex equipment operating at 8448 kbit/s

*Individually through the Electronic Bookshop: 20 CHF*

**G.745 (11/88)** Second order digital multiplex equipment operating at 8448 kbit/s and using positive/zero/negative justification

*Individually through the Electronic Bookshop: 20 CHF*

**G.746 (11/88)** Characteristics of second order PCM multiplex equipment operating at 6312 kbit/s

*Individually through the Electronic Bookshop: 20 CHF*

**G.747 (11/88)** Second order digital multiplex equipment operating at 6312 kbit/s and multiplexing three tributaries at 2048 kbit/s

*Individually through the Electronic Bookshop: 20 CHF*

### *Principal characteristics of higher order multiplex equipment*

**G.751 (11/88)** Digital multiplex equipments operating at the third order bit rate of 34 368 kbit/s and the fourth order bit rate of 139 264 kbit/s and using positive justification

*Individually through the Electronic Bookshop: 20 CHF*

**G.752 (11/88)** Characteristics of digital multiplex equipments based on a second order bit rate of 6312 kbit/s and using positive justification

*Individually through the Electronic Bookshop:* 20 CHF

**G.753 (11/88)** Third order digital multiplex equipment operating at 34 368 kbit/s and using positive/zero/negative justification

*Individually through the Electronic Bookshop:* 20 CHF

**G.754 (11/88)** Fourth order digital multiplex equipment operating at 139 264 kbit/s and using positive/zero/negative justification

*Individually through the Electronic Bookshop:* 20 CHF

**G.755 (11/88)** Digital multiplex equipment operating at 139 264 kbit/s and multiplexing three tributaries at 44 736 kbit/s

*Individually through the Electronic Bookshop:* 20 CHF

### *Principal characteristics of transcoder and digital multiplication equipment*

**G.761 (11/88)** General characteristics of a 60-channel transcoder equipment

*Individually through the Electronic Bookshop:* 20 CHF

**G.762 (11/88)** General characteristics of a 48-channel transcoder equipment

*Individually through the Electronic Bookshop:* 20 CHF

**G.763 (10/98)** Digital circuit multiplication equipment using G.726 ADPCM and digital speech interpolation

*This Recommendation includes 2 diskettes. The first one contains A-Law and m-Law test vectors for DCME verification. The second one contains example transmit/receive SDLs.*

*Covering note, May 2000: Erratum*

176pp E 16891 F 16892 S 16893 128 CHF

**G.763 Appendix I (10/98)** Additional requirements

*This appendix includes one diskette containing information on the additional requirements.*

To be published...

**G.763 Erratum (12/00)** Erratum to Recommendation ITU-T G.763 (10/98)

**G.764 (12/90)** Voice packetization – Packetized voice protocols

21pp E 1984 F 1983 S 1985 13 CHF

**G.764 Appendix I (11/95)** Packetization guide

20pp E 6805 F 6806 S 6807 17 CHF

**G.765 (09/92)** Packet circuit multiplication equipment

111pp E 3195 F 3194 S 3196 38 CHF

**G.765 Appendix I (11/95)** A guide to PCME

36pp E 6901 F 6902 S 6903 22 CHF

**G.766 (11/96)** Facsimile demodulation/remodulation for digital circuit multiplication equipment

108pp E 10821 F 10822 S 10823 44 CHF

**G.767 (10/98)** Digital circuit multiplication equipment using 16 kbit/s LD-CELP, digital speech interpolation and facsimile demodulation/remodulation

32pp E 14434 F 14435 S 14436 17 CHF

**G.768 (03/01)** Digital circuit multiplication equipment using 8 kbit/s CS-ACELP

34pp E 20820 F 20822 S 20823 17 CHF

**G.769/Y.1242 (08/02)** Circuit Multiplication Equipment optimized for IP-based networks

32pp E 23167 F 23168 S 23169 17 CHF

### *Operations, administration and maintenance features of transmission equipment*

**G.771 (11/88) Withdrawn (03/93)**

Q-interfaces and associated protocols for transmission equipment in the TMN

*Deleted after its content became technically out of date*

**G.772 (03/93)** Protected monitoring points provided on digital transmission systems

5pp E 4111 F 4110 S 4112 8 CHF

**G.773 (03/93)** Protocol suites for Q-interfaces for management of transmission systems

17pp E 4153 F 4152 S 4154 15 CHF

**G.774 (02/01)** Synchronous digital hierarchy (SDH) – Management information model for the network element view

108pp E 21119 F 21120 S 21121 44 CHF

**G.774.1 (02/01)** Synchronous digital hierarchy (SDH) – Bidirectional performance monitoring for the network element view

40pp E 20838 F 20839 S 20840 22 CHF

**G.774.2 (02/01)** Synchronous digital hierarchy (SDH) – Configuration of the payload structure for the network element view

62pp E 21064 F 21065 S 21066 29 CHF

**G.774.3 (02/01)** Synchronous digital hierarchy (SDH) management of multiplex-section protection for the network element view

48pp E 21540 F 21541 S 21542 34 CHF

**G.774.4 (02/01)** Synchronous digital hierarchy (SDH) – Management of the subnetwork connection protection for the network element view

56pp E 21639 F 21640 S 21641 29 CHF

**G.774.5 (02/01)** Synchronous digital hierarchy (SDH) management of connection supervision functionality (HCS/LCS) for the network element view

24pp E 20841 F 20842 S 20843 17 CHF

**G.774.6 (02/01)** Synchronous Digital Hierarchy (SDH) – Unidirectional performance monitoring for the network element view

56pp E 20882 F 20883 S 20884 22 CHF

**G.774.7 (02/01)** Synchronous digital hierarchy (SDH) – Management of lower order path trace and interface labelling for the network element view

18pp E 20844 F 20845 S 20846 12 CHF

**G.774.8 (02/01)** Synchronous digital hierarchy (SDH) – Management of radio-relay systems for the network element view

40pp E 20853 F 20854 S 20855 22 CHF

**G.774.9 (02/01)** Synchronous digital hierarchy (SDH) – Configuration of linear multiplex-section protection for the network element view

20pp E 20850 F 20851 S 20852 17 CHF

**G.774.10 (02/01)** Synchronous Digital Hierarchy (SDH) Multiplex Section (MS) shared protection ring management for the network element view

42pp E 20946 F 20947 S 20948 22 CHF

**G.775 (10/98)** Loss of Signal (LOS), Alarm Indication Signal (AIS) and Remote Defect Indication (RDI) defect detection and clearance criteria for PDH signals

12pp E 14317 F 14318 S 14319 12 CHF

**G.776.1 (10/98)** Managed objects for signal processing network elements

*This Recommendation includes one diskette containing the information model of Signal Processing Network Elements (SPNE).*

12pp E 14495 F 14496 S 14497 49 CHF

**G.776.3 (04/00)** ADPCM DCME configuration map report

28pp E 18595 F 18596 S 18597 17 CHF

*Principal characteristics of multiplexing equipment for the synchronous digital hierarchy*

**G.780 (07/99)** Vocabulary of terms for synchronous digital hierarchy (SDH) networks and equipment

32pp E 16506 F 16507 S 16508 17 CHF

**G.781 (01/94) Withdrawn (04/97)**

Structure of Recommendations on equipment for the synchronous digital hierarchy (SDH)

*Merged with ITU-T G.783 in 1997*

2pp E 4632 F 4631 S 4633 8 CHF

**G.781 (07/99)** Synchronization layer functions

124pp E 16613 F 16614 S 16615 49 CHF

**G.782 (01/94) Withdrawn (04/97)**

Types and general characteristics of synchronous digital hierarchy (SDH) equipment

*Merged with ITU-T G.783 in 1997*

29pp E 5550 F 5549 S 5551 15 CHF

**G.783 (10/00)** Characteristics of synchronous digital hierarchy (SDH) equipment functional blocks

274pp E 20440 F 20441 S 20442 96 CHF

*Principal characteristics of multiplexing equipment for the synchronous digital hierarchy*

**G.783 (2000) Amendment 1 (06/02)** Amendment 1

20pp E 23064 F 23065 S 23066 12 CHF

**G.783 (2000) Corrigendum 2 (03/03)**

*Principal characteristics of multiplexing equipment for the synchronous digital hierarchy*

**G.784 (07/99)** Synchronous digital hierarchy (SDH) management

56pp E 16534 F 16535 S 16536 29 CHF

**G.785 (11/96)** Characteristics of a flexible multiplexer in a synchronous digital hierarchy environment

24pp E 11681 F 11682 S 11683 17 CHF

## Other terminal equipment

**G.791 (11/88)** General considerations on transmultiplexing equipments

*Individually through the Electronic Bookshop:* 20 CHF

**G.792 (11/88)** Characteristics common to all transmultiplexing equipments

*Individually through the Electronic Bookshop:* 20 CHF

**G.793 (11/88)** Characteristics of 60-channel transmultiplexing equipments

*Individually through the Electronic Bookshop:* 20 CHF

**G.794 (11/88)** Characteristics of 24-channel transmultiplexing equipments

*Individually through the Electronic Bookshop:* 20 CHF

**G.795 (11/88)** Characteristics of codecs for FDM assemblies

*Individually through the Electronic Bookshop:* 20 CHF

**G.796 (09/92)** Characteristics of a 64 kbit/s cross-connect equipment with 2048 kbit/s access ports

10pp E 2992 F 2985 S 2999 11 CHF

**G.796 (2000) Corrigendum 1 (10/98)**

**G.797 (03/96)** Characteristics of a flexible multiplexer in a plesiochronous digital hierarchy environment

48pp E 7302 F 7303 S 7304 22 CHF

**G.798 (01/02)** Characteristics of optical transport network hierarchy equipment functional blocks

244pp E 22889 F 22890 S 22891 96 CHF

**G.798 (2002) Amendment 1 (06/02)**

22pp E 22688 F 22689 S 22690 17 CHF

## Supplements to Section 7 of the Series G Recommendations

**Suppl. 28 (10/84)** Application of transmultiplexers, FDM codecs, data-in-voice (DIV) systems and data-over-voice (DOV) systems during the transition from an analogue to a digital network

*Red Book Fascicle III.3, page 397*

**Suppl. 31 (11/88) Withdrawn (04/00)**

Status of work of presently considered digital circuit multiplication equipment (DCME) documents

*This Supplement was withdrawn because its was no longer relevant*

## Digital networks

### General aspects

**G.801 (11/88)** Digital transmission models

*Individually through the Electronic Bookshop:* 20 CHF

**G.802 (11/88)** Interworking between networks based on different digital hierarchies and speech encoding laws

*Individually through the Electronic Bookshop:* 20 CHF

**G.803 (03/00)** Architecture of transport networks based on the synchronous digital hierarchy (SDH)

56pp E 19599 F 19600 S 19601 29 CHF

**G.804 (02/98)** ATM cell mapping into Plesiochronous Digital Hierarchy (PDH)

20pp E 13308 F 13309 S 13310 17 CHF

**G.805 (03/00)** Generic functional architecture of transport networks

60pp E 20094 F 20095 S 20096 29 CHF

**G.806 (02/04)** Characteristics of transport equipment – Description methodology and generic functionality

To be published...

**G.807/Y.1302 (07/01)** Requirements for automatic switched transport networks (ASTN)

22pp E 20720 F 20721 S 20722 17 CHF

### General

**G.808.1 (12/03)** Generic protection switching – Linear trail and sub-network protection

To be published...

### General aspects

**G.809 (03/03)** Functional architecture of connectionless layer networks

29pp E 24228 F 24229 S 24230 17 CHF

### Design objectives for digital networks

**G.810 (08/96)** Definitions and terminology for synchronization networks

24pp E 9794 F 9795 S 9796 17 CHF

**G.810 (1996) Corrigendum 1 (11/01)**

**G.811 (09/97)** Timing characteristics of primary reference clocks

8pp E 12242 F 12243 S 12244 9 CHF



**G.812 (06/98)** Timing requirements of slave clocks suitable for use as node clocks in synchronization networks

40pp E 13565 F 13566 S 13567 22 CHF

**G.813 (03/03)** Timing characteristics of SDH equipment slave clocks (SEC)

34pp E 24044 F 24045 S 24046 17 CHF

**G.821 (12/02)** Error performance of an international digital connection operating at a bit rate below the primary rate and forming part of an Integrated Services Digital Network

18pp E 23355 F 23356 S 23357 12 CHF

**G.822 (11/88)** Controlled slip rate objectives on an international digital connection

*Individually through the Electronic Bookshop:* 20 CHF

**G.823 (03/00)** The control of jitter and wander within digital networks which are based on the 2048 kbit/s hierarchy

48pp E 19758 F 19759 S 19760 22 CHF

**G.824 (03/00)** The control of jitter and wander within digital networks which are based on the 1544 kbit/s hierarchy

24pp E 19397 F 19398 S 19399 17 CHF

**G.825 (03/00)** The control of jitter and wander within digital networks which are based on the synchronous digital hierarchy (SDH)

20pp E 19273 F 19274 S 19275 12 CHF

**G.825 Erratum 1 (08/01)** Erratum to Recommendation ITU-T G.825 (03/00)

**G.826 (12/02)** End-to-end error performance parameters and objectives for international, constant bit-rate digital paths and connections

34pp E 23371 F 23372 S 23373 17 CHF

**G.827 (09/03)** Availability performance parameters and objectives for end-to-end international constant bit-rate digital paths

26pp E 25076 17 CHF

**G.827.1 (11/00) Withdrawn (01/04)**

Availability performance objectives for end-to-end international constant bit-rate digital paths at or above the primary rate

*Deleted on 13/01/2004 after the incorporation of its content in G.827 (09/2003)*

18pp E 19866 F 19867 S 19868 12 CHF

**G.828 (03/00)** Error performance parameters and objectives for international, constant bit rate synchronous digital paths

24pp E 19498 F 19499 S 19500 17 CHF

**G.828 (2000) Corrigendum 1 (07/01)**

**G.829 (12/02)** Error performance events for SDH multiplex and regenerator sections

16pp E 23338 F 23339 S 23340 12 CHF

**G.831 (03/00)** Management capabilities of transport networks based on the synchronous digital hierarchy (SDH)

16pp E 19527 F 19528 S 19529 12 CHF

**G.832 (10/98)** Transport of SDH elements on PDH networks – Frame and multiplexing structures

24pp E 14607 F 14608 S 14609 17 CHF

**G.841 (10/98)** Types and characteristics of SDH network protection architectures

140pp E 15794 F 15795 S 15796 55 CHF

**G.841 (1998) Corrigendum 1 (08/02)**

**G.842 (04/97)** Interworking of SDH network protection architectures

36pp E 12034 F 12035 S 12036 22 CHF

**G.851.1 (11/96)** Management of the transport network – Application of the RM-ODP framework

72pp E 11054 F 11055 S 11056 34 CHF

**G.852.1 (11/96)** Enterprise viewpoint for simple subnetwork connection management

16pp E 11684 F 11685 S 11686 12 CHF

**G.852.2 (03/99)** Enterprise viewpoint description of transport network resource model

36pp E 15928 F 15929 S 15930 22 CHF

**G.852.3 (03/99)** Enterprise viewpoint for topology management

20pp E 15736 F 15740 S 15741 17 CHF

**G.852.6 (03/99)** Enterprise viewpoint for trail management

16pp E 15691 F 15694 S 15695 12 CHF

**G.852.8 (03/99)** Enterprise viewpoint for pre-provisioned adaptation management

12pp E 14296 F 14297 S 14298 12 CHF



**G.852.10 (03/99)** Enterprise viewpoint for pre-provisioned link connection management  
12pp E 15696 F 15697 S 15698 12 CHF

**G.852.12 (03/99)** Enterprise viewpoint for pre-provisioned link management  
16pp E 15699 F 15700 S 15701 12 CHF

**G.852.16 (01/01)** Enterprise viewpoint for pre-provisioned route discovery  
14pp E 20413 F 20414 S 20415 12 CHF

**G.853.1 (03/99)** Common elements of the information viewpoint for the management of a transport network  
60pp E 15961 F 15962 S 15963 29 CHF

**G.853.2 (11/96)** Subnetwork connection management information viewpoint  
20pp E 11775 F 11778 S 11779 17 CHF

**G.853.3 (03/99)** Information viewpoint for topology management  
16pp E 15778 F 15779 S 15780 12 CHF

**G.853.6 (03/99)** Information viewpoint for trail management  
12pp E 15702 F 15703 S 15704 12 CHF

**G.853.8 (03/99)** Information viewpoint for pre-provisioned adaptation management  
20pp E 15883 F 15884 S 15885 17 CHF

**G.853.10 (03/99)** Information viewpoint for pre-provisioned link connection management  
12pp E 15889 F 15890 S 15891 12 CHF

**G.853.12 (03/99)** Information viewpoint for pre-provisioned link management  
12pp E 15880 F 15881 S 15882 12 CHF

**G.853.16 (01/01)** Information viewpoint for pre-provisioned route discovery  
17pp E 20416 F 20417 S 20418 17 CHF

**G.854.1 (11/96)** Computational interfaces for basic transport network model  
24pp E 11043 F 11044 S 11045 17 CHF

**G.854.3 (03/99)** Computational viewpoint for topology management  
36pp E 15751 F 15752 S 15753 22 CHF

**G.854.6 (03/99)** Computational viewpoint for trail management  
32pp E 15760 F 15761 S 15762 17 CHF

**G.854.8 (03/99)** Computational viewpoint for pre-provisioned adaptation management  
32pp E 15877 F 15878 S 15879 17 CHF

**G.854.10 (03/99)** Computational viewpoint for pre-provisioned link connection management  
20pp E 15754 F 15755 S 15756 17 CHF

**G.854.12 (03/99)** Computational viewpoint for pre-provisioned link management  
16pp E 15763 F 15764 S 15765 12 CHF

**G.854.16 (01/01)** Computational viewpoint for pre-provisioned route discovery  
18pp E 20473 F 20474 S 20475 12 CHF

**G.855.1 (03/99)** GDMO engineering viewpoint for the generic network level model  
30pp E 15934 F 15935 S 15936 17 CHF

**G.861 (08/96)** Principles and guidelines for the integration of satellite and radio systems in SDH transport networks  
20pp E 10824 F 10825 S 10826 17 CHF

**G.871/Y.1301 (10/00)** Framework for optical transport network Recommendations  
16pp E 19928 F 19929 S 19930 12 CHF

**G.872 (11/01)** Architecture of optical transport networks  
72pp E 22537 F 22538 S 22539 34 CHF

**G.872 (2001) Amendment 1 (12/03)**  
9pp E 25127 F 25128 S 25129 9 CHF

**G.873.1 (03/03)** Optical Transport Network (OTN): Linear protection  
23pp E 24180 F 24181 S 24182 17 CHF

**G.873.1 Erratum 1 (10/03)**

**G.874 (11/01)** Management aspects of the optical transport network element  
64pp E 22280 F 22281 S 22282 29 CHF

**G.874.1 (01/02)** Optical transport network (OTN): Protocol-neutral management information model for the network element view  
67pp E 22338 F 22339 S 22340 29 CHF

## Digital sections and digital line system

### General

**G.901 (11/88)** General considerations on digital sections and digital line systems  
*Individually through the Electronic Bookshop:* 20 CHF

**G.902 (11/95)** Framework Recommendation on functional access networks (AN) – Architecture and functions, access types, management and service node aspects  
44pp E 9545 F 9546 S 9547 22 CHF

### Parameters for optical fibre cable systems

**G.911 (04/97)** Parameters and calculation methodologies for reliability and availability of fibre optic systems  
36pp E 12157 F 12158 S 12159 22 CHF

### Digital sections at hierarchical bit rates based on a bit rate of 2048 kbit/s

**G.921 (11/88)** Digital sections based on the 2048 kbit/s hierarchy  
*Individually through the Electronic Bookshop:* 20 CHF

### Digital line transmission systems on cable at non-hierarchical bit rates

**G.931 (11/88) Withdrawn (05/02)**  
Digital line sections at 3152 kbit/s  
*This Recommendation was deleted since no more significant content remained after the removal of the material in its Annex A to new Appendix III/G.703 '3152 kbit/s interface specification for use in North America'.*  
*Individually through the Electronic Bookshop:* 20 CHF

### Digital line systems provided by FDM transmission bearers

**G.941 (11/88)** Digital line systems provided by FDM transmission bearers  
*Individually through the Electronic Bookshop:* 20 CHF

### Digital line systems

**G.950 (11/88)** General considerations on digital line systems  
*Individually through the Electronic Bookshop:* 20 CHF

**G.951 (11/88)** Digital line systems based on the 1544 kbit/s hierarchy on symmetric pair cables  
*Individually through the Electronic Bookshop:* 20 CHF

**G.952 (11/88)** Digital line systems based on the 2048 kbit/s hierarchy on symmetric pair cables  
*Individually through the Electronic Bookshop:* 20 CHF

**G.953 (11/88)** Digital line systems based on the 1544 kbit/s hierarchy on coaxial pair cables  
*Individually through the Electronic Bookshop:* 20 CHF

**G.954 (11/88)** Digital line systems based on the 2048 kbit/s hierarchy on coaxial pair cables  
*Individually through the Electronic Bookshop:* 20 CHF

**G.955 (11/88) Withdrawn (03/93)**  
Digital line systems based on the 1544 kbit/s and the 2048 kbit/s hierarchy on optical fibre cables  
*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:*

**G.955 (11/96)** Digital line systems based on the 1544 kbit/s and the 2048 kbit/s hierarchy on optical fibre cables  
24pp E 11701 F 11702 S 11703 17 CHF

**G.956 (11/88) Withdrawn (03/93)**  
Digital line systems based on the 2048 kbit/s hierarchy on optical fibre cables  
*The content of this Recommendation is now covered by ITU-T G.955*  
*Individually through the Electronic Bookshop:*

**G.957 (07/99)** Optical interfaces for equipments and systems relating to the synchronous digital hierarchy  
6pp E 16537 F 16538 S 16539 22 CHF

**G.957 (1999) Amendment 1 (12/03)**  
10pp E 24842 F 24843 S 24844 9 CHF

**G.959.1 (12/03)** Optical transport network physical layer interfaces  
52pp E 24895 F 24896 S 24897 22 CHF

### Digital section and digital transmission systems for customer access to ISDN

**G.960 (03/93)** Access digital section for ISDN basic rate access  
32pp E 3914 F 3913 S 3915 20 CHF

**G.961 (03/93)** Digital transmission system on metallic local lines for ISDN basic rate access  
*Covering note, 1st August 2000: Corrigendum 1*  
139pp E 4102 F 4101 S 4103 42 CHF

**G.961 erratum (08/00)**

**G.962 (03/93)** Access digital section for ISDN primary rate at 2048 kbit/s  
51pp E 3841 F 3840 S 3842 24 CHF

**G.962 (1993) Amendment 1 (06/97)** Maintenance channel  
12pp E 11916 F 11917 S 11918 12 CHF

**G.963 (03/93)** Access digital section for ISDN primary rate at 1544 kbit/s  
29pp E 3708 F 3707 S 3709 15 CHF

**G.964 (03/01)** V-interfaces at the digital local exchange (LE) – V5.1 interface (based on 2048 kbit/s) for the support of access network (AN)  
203pp E 21555 F 21556 S 21557 73 CHF

**G.965 (03/01)** V-interfaces at the digital local exchange (LE) – V5.2 interface (based on 2048 kbit/s) for the support of access network (AN)  
196pp E 21615 F 21616 S 21617 73 CHF

**G.966 (02/99)** Access digital section for B-ISDN  
28pp E 16003 F 16004 S 16005 17 CHF

#### *G.967 V-interfaces at the service node (SN)*

**G.967.1 (06/98)** V-interfaces at the service node (SN) : VB5.1 reference point specification  
*This Recommendation includes one diskette containing the SDL process diagrams corresponding to the VB5.1 reference point.*  
192pp E 14280 F 14281 S 14282 12 CHF

**G.967.2 (02/99)** VB5.2 reference point specification  
*This Recommendation includes one diskette containing the SDL process diagrams corresponding to the VB5.2 reference point.*  
E 15920 F 15921 S 15922 101 CHF

**G.967.3 (03/00)** Protocol implementation conformance statements for interfaces at VB5 reference points  
8pp E 19400 F 19401 S 19402 9 CHF

#### *Optical fibre submarine cable systems*

**G.971 (04/00)** General features of optical fibre submarine cable systems  
20pp E 19686 F 19687 S 19688 12 CHF

**G.972 (10/00)** Definition of terms relevant to optical fibre submarine cable systems  
24pp E 19906 F 19907 S 19908 17 CHF

**G.973 (11/96)** Characteristics of repeaterless optical fibre submarine cable systems  
24pp E 11723 F 11724 S 11725 17 CHF

**G.973 (12/03)** Characteristics of repeaterless optical fibre submarine cable systems  
To be published...

**G.974 (03/93)** Characteristics of regenerative optical fibre submarine cable systems  
15pp E 4213 F 4212 S 4214 15 CHF

**G.975 (10/00)** Forward error correction for submarine systems  
24pp E 20246 F 20247 S 20248 17 CHF

**G.975.1 (02/04)** Forward error correction for high bit rate DWDM submarine systems  
To be published...

**G.976 (10/00)** Test methods applicable to optical fibre submarine cable systems  
41pp E 19925 F 19926 S 19927 22 CHF

**G.977 (03/04)** Characteristics of optically amplified optical fibre submarine cable systems  
To be published...

#### *Access networks*

**G.977 (04/00)** Characteristics of optically amplified optical submarine cable systems  
40pp E 19689 F 19690 S 19691 22 CHF

#### *Optical line systems for local and access networks*

**G.981 (01/94)** PDH optical line systems for the local network  
8pp E 5384 F 5383 S 5385 11 CHF

**G.982 (11/96)** Optical access networks to support services up to the ISDN primary rate or equivalent bit rates  
28pp E 11714 F 11715 S 11716 17 CHF

**G.983.1 (10/98)** Broadband optical access systems based on Passive Optical Networks (PON)  
116pp E 15705 F 15706 S 15707 49 CHF

**G.983.1 (1998) Amendment 1 (11/01)** Amendment 1  
20pp E 22001 F 22002 S 22003 12 CHF

**G.983.1 (1998) Amendment 2 (03/03)**  
16pp E 24022 F 24023 S 24024 12 CHF

**G.983.1 Corrigendum 1 (07/99)****G.983.1 (1998) Corrigendum 1 (1999) /Erratum 1 (03/02)****G.983.2 (06/02)** ONT management and control interface specification for B-PON

192pp E 23384 F 23385 S 23386 73 CHF

**G.983.2 (2002) Amendment 1 (03/03)**

13pp E 23971 F 23972 S 23973 12 CHF

**G.983.3 (03/01)** A broadband optical access system with increased service capability by wavelength allocation

62pp E 21023 F 21024 S 21025 29 CHF

**G.983.3 (2001) Amendment 1 (06/02)**

16pp E 22359 F 22360 S 22361 12 CHF

**G.983.4 (11/01)** A broadband optical access system with increased service capability using dynamic bandwidth assignment

88pp E 22304 F 22305 S 22306 39 CHF

**G.983.4 (2001) Amendment 1 (12/03)**

New Annex A – Performance monitoring parameters

12pp E 24854 F 24855 S 24856 9 CHF

**G.983.5 (01/02)** A broadband optical access system with enhanced survivability

59pp E 22639 F 22640 S 22641 29 CHF

**G.983.6 (06/02)** ONT management and control interface specifications for B-PON system with protection features

24pp E 22720 F 22721 S 22722 17 CHF

**G.983.7 (11/01)** ONT management and control interface specification for dynamic bandwidth assignment (DBA) B-PON system

28pp E 21417 F 21418 S 21419 17 CHF

**G.983.8 (03/03)** B-PON OMCI support for IP, ISDN, video, VLAN tagging, VC cross-connections and other select functions

66pp E 24304 F 24305 S 24306 29 CHF

**G.984.1 (03/03)** Gigabit-capable Passive Optical Networks (GPON): General characteristics

21pp E 24152 F 24153 S 24154 17 CHF

**G.984.2 (03/03)** Gigabit-capable Passive Optical Networks (GPON): Physical Media Dependent (PMD) layer specification

36pp E 24424 F 24425 S 24426 22 CHF

**G.984.3 (02/04)** Gigabit-capable Passive Optical Networks (GPON): Transmission Convergence Layer specification

To be published...

**G.985 (03/03)** 100 Mbit/s point-to-point Ethernet based optical access system

20pp E 24118 F 24119 S 24120 12 CHF

**G.989.1 (02/01)** Phoneline networking transceivers – Foundation

22pp E 20800 F 20801 S 20802 17 CHF

**G.989.2 (11/01)** Phoneline networking transceivers – Payload format and link layer requirements

65pp E 22065 F 22066 S 22067 29 CHF

**G.989.3 (03/03)** Phoneline networking transceivers – Isolation function

19pp E 24370 F 24371 S 24372 12 CHF

**G.991.1 (10/98)** High bit rate Digital Subscriber Line (HDSL) transceivers

168pp E 16084 F 16085 S 16086 73 CHF

**G.991.2 (12/03)** Single-pair high-speed digital subscriber line (SHDSL) transceivers

To be published...

**G.992.1 (07/99)** Asymmetrical digital subscriber line (ADSL) transceivers

252pp E 17821 F 17822 S 17823 96 CHF

**G.992.1 (1999) Amendment 1 (03/03)** Revised Annex C, new Annex I and new Appendix V*This amendment includes the changes introduced by G.992.1 (1999) Corrigendum 2*

110pp E 25023 F 25024 S 25025 44 CHF

**G.992.1 (1999) Amendment 1 Corrigendum 1 (12/03)**

To be published...

**G.992.1 Annex H (10/00)** Specific requirements for a synchronized symmetrical DSL (SSDSL) system operating in the same cable binder as ISDN as defined in G.961 Appendix III

46pp E 19980 F 19981 S 19982 22 CHF

**G.992.1 (1999) Corrigendum 1 (11/01)****G.992.1 (1999) Corrigendum 2 (07/02)**

*The changes introduced by this corrigendum are included in G.992.1 (1999) Amendment 1*

**G.992.2 (07/99) Splitterless asymmetric digital subscriber line (ADSL) transceivers**

176pp E 17666 F 17667 S 17668 73 CHF

**G.992.2 (1999) Amendment 1 (03/03) Revised Annex C**

*This Amendment includes the modifications of Corrigendum 1 (2002)*

50pp E 24183 F 24184 S 24185 22 CHF

**G.992.2 (1999) Amendment 2 (10/03) New Appendix IV: Example overlapped PSD masks for use in a TCM-ISDN crosstalk environment**

11pp E 24942 F 24943 S 24944 9 CHF

**G.992.2 (1999) Corrigendum 1 (07/02)**

*The content of this corrigendum has been incorporated in Amendment 1 (2003)*

**G.992.3 (07/02) Asymmetric digital subscriber line transceivers 2 (ADSL2)**

*This Recommendation includes the changes introduced by Amendment 1 (2003)*

311pp E 24505 F 24506 S 24507 124 CHF

**G.992.3 (2002) Amendment 1 (05/03)**

*This amendment is not published since its content has been directly incorporated in G.992.3 (07/2002)*

To be published...

**G.992.3 (2002) Amendment 1 Corrigendum 1 (02/04)**

To be published...

**G.992.3 (2002) Corrigendum 1 (12/03)****G.992.3 (2002) Corrigendum 2 (02/04)**

To be published...

**G.992.4 (07/02) Splitterless asymmetric digital subscriber line transceivers 2 (splitterless ADSL2)**

24pp E 23104 F 23105 S 23106 17 CHF

**G.992.5 (05/03) Asymmetrical Digital Subscriber Line (ADSL) transceivers – Extended bandwidth ADSL2 (ADSL2+)**

94pp E 24754 F 24755 S 24756 39 CHF

**G.993.1 (11/01) Very high speed digital subscriber line foundation**

52pp E 22274 F 22275 S 22276 22 CHF

**G.993.1 (2001) Amendment 1 (03/03)**

New Annex F: Regional requirements for environment coexisting with TCM-ISDN DSL as defined in Appendix III of ITU-T Recommendation G.961

47pp E 24636 F 24637 S 24638 22 CHF

**G.994.1 (05/03) Handshake procedures for digital subscriber line (DSL) transceivers**

163pp E 24773 F 24774 S 24775 61 CHF

**G.994.1 (2003) Amendment 1 (02/04)**

To be published...

**G.995.1 (02/01) Overview of digital subscriber line (DSL) Recommendations**

36pp E 21048 F 21049 S 21050 17 CHF

**G.995.1 (2001) Amendment 1 (11/01)**

12pp E 21937 F 21938 S 21939 9 CHF

**G.996.1 (02/01) Test procedures for digital subscriber line (DSL) transceivers**

86pp E 21320 F 21321 S 21322 39 CHF

**G.996.1 (2001) Amendment 1 (03/03)**

New Annex B

13pp E 24014 F 24015 S 24016 12 CHF

**G.996.1 Erratum 1 (01/03)****Digital terminal equipments****G.997.1 (05/03) Physical layer management for digital subscriber line (DSL) transceivers**

73pp E 24984 F 24985 S 24986 34 CHF

**G.997.1 (2003) Amendment 1 (12/03)**

11pp E 25187 F 25188 S 25189 9 CHF

**Suppl. 27 (10/84) Interference from external sources**

*This Supplement is also published as G.500 series supplement in Red Book fascicle III.2*

**Suppl. 34 (11/88) Temperature in underground containers for the installation of repeaters****Suppl. 35 (11/88) Guidelines concerning the measurement of wander****Suppl. 36 (11/88) Jitter and wander accumulation in digital networks**

**Suppl. 37 (10/98)** ITU-T Recommendation G.763  
digital circuit multiplication equipment (DCME)  
tutorial and dimensioning

20pp E 15964 F 15965 S 15966 17 CHF

**Suppl. 38 (10/98)** Variable bit rate calculations for  
ITU-T Recommendation G.767 Digital Circuit  
Multiplication Equipment (DCME)

8pp E 14406 F 14407 S 14408 9 CHF

**G.1000 (11/01)** Communications Quality of Service:  
A framework and definitions

16pp E 21742 F 21743 S 21744 12 CHF

**G.1010 (11/01)** End-user multimedia QoS categories

18pp E 21883 F 21884 S 21885 12 CHF

**G.1020 (11/03)** Performance parameter definitions  
for quality of speech and other voiceband  
applications utilising IP networks

30pp E 24964 F 24965 S 24966 17 CHF

**G.7041/Y.1303 (12/03)** Generic framing procedure  
(GFP)

58pp E 24981 29 CHF

**G.7042/Y.1305 (11/01)** Link capacity adjustment  
scheme (LCAS) for virtual concatenated signals

24pp E 21947 F 21948 S 21949 17 CHF

**G.7042/Y.1305 (2001) Corrigendum 1 (06/02)**

**G.7042/Y.1305 (2001) Corrigendum 2 (03/03)**

**G.7710/Y.1701 (11/01)** Common equipment  
management function requirements

88pp E 22596 F 22597 S 22598 39 CHF

**G.7712/Y.1703 (03/03)** Architecture and  
specification of data communication network

76pp E 24574 F 24575 S 24576 34 CHF

**G.7713/Y.1704 (12/01)** Distributed call and  
connection management (DCM)

74pp E 22912 F 22913 S 22914 34 CHF

**G.7713.1/Y.1704.1 (03/03)** Distributed call and  
connection management (DCM) based on PNNI

50pp E 24323 F 24324 S 24325 29 CHF

**G.7713.2/Y.1704.2 (03/03)** Distributed Call and  
Connection Management: Signalling mechanism  
using GMPLS RSVP-TE

45pp E 24418 F 24419 S 24420 22 CHF

**G.7713.3/Y.1704.3 (03/03)** Distributed Call and  
Connection Management: Signalling mechanism  
using GMPLS CR-LDP

43pp E 24383 F 24384 S 24385 22 CHF

**G.7714/Y.1705 (11/01)** Generalized automatic  
discovery techniques

16pp E 21414 F 21415 S 21416 17 CHF

**G.7714.1/Y.1705.1 (04/03)** Protocol for automatic  
discovery in SDH and OTN networks

30pp E 24421 F 24422 S 24423 17 CHF

**G.7715/Y.1706 (06/02)** Architecture and  
Requirements for Routing in the Automatic Switched  
Optical Networks

36pp E 22748 F 22749 S 22750 17 CHF

**G.7715.1/Y.1706.1 (02/04)** ASON routing  
architecture and requirements for link state protocols

25pp E 25228 17 CHF

**G.8010/Y.1306 (02/04)** Architecture of Ethernet  
Layer Networks

42pp E 25562 22 CHF

**G.8040/Y.1340 (12/03)** GFP frame mapping into  
plesiochronous digital hierarchy (PDH)

10pp E 24845 F 24846 S 24847 9 CHF

**G.8080/Y.1304 (11/01)** Architecture for the  
automatic switched optical networks (ASON)

48pp E 22221 F 22222 S 22223 22 CHF

**G.8080/Y.1304 Amendment 1 (03/02)**

To be published...

**G.8201 (09/03)** Error performance parameters and  
objectives for multi-operator international paths  
within the Optical Transport Network (OTN)

20pp E 24898 F 24899 S 24890 12 CHF



**G.8251 (11/01)** The control of jitter and wander within the optical transport network (OTN)  
64pp E 22556 F 22557 S 22558 29 CHF

**G.8251 (2001) Amendment 1 (06/02)**  
60pp E 22874 F 22875 S 22876 29 CHF

**G.8251 (2001) Corrigendum 1 (06/02)**

<p><b>SERIES H</b></p> <p><b>Audiovisual and multimedia systems</b></p>
---

**H.11 (10/84) Withdrawn (06/98)**  
Characteristics of circuits in the switched telephone network  
*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:* 20 CHF

**H.12 (10/84) Withdrawn (06/98)**  
Characteristics of telephone-type leased circuits  
*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:* 20 CHF

**H.13 (11/88) Withdrawn (06/98)**  
Impulsive noise measuring instrument for telephone-type circuits  
*H.13 was an alias name of ITU-T O.71. Only this alias name was suppressed. ITU-T O.71 remains valid*  
*Individually through the Electronic Bookshop:* 20 CHF

**H.14 (10/84) Withdrawn (06/98)**  
Characteristics of group links for the transmission of wide-spectrum signals  
*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:* 20 CHF

**H.15 (10/84) Withdrawn (06/98)**  
Characteristics of supergroup links for the transmission of wide-spectrum signals  
*Individually through the Electronic Bookshop:* 20 CHF

**H.16 (10/84) Withdrawn (06/98)**  
Characteristics of an impulsive-noise measuring instrument for wideband data transmission  
*H.16 was an alias name of ITU-T O.72. Only this alias name was suppressed. ITU-T O.72 remains valid*  
*Individually through the Electronic Bookshop:* 20 CHF

**H.21 (10/84) Withdrawn (06/98)**  
Composition and terminology of international voice-frequency telegraph systems  
*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:* 20 CHF

**H.22 (10/84) Withdrawn (06/98)**  
Transmission requirements of international voice-frequency telegraph links (at 50, 100 and 200 bauds)  
*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:* 20 CHF

**H.23 (10/84) Withdrawn (06/98)**  
Basic characteristics of telegraph equipments used in international voice-frequency telegraph systems  
*This Recommendation was only reproducing for information some characteristics given in ITU-T R.31 and R.35*  
*Individually through the Electronic Bookshop:* 20 CHF

**H.32 (11/88) Withdrawn (06/98)**  
Simultaneous communication by telephony and telegraphy on a telephone-type circuit  
*H.32 was an alias name of ITU-T R.43. Only this alias name was suppressed. ITU-T R.43 remains valid*  
E 10260 F 10260 S 10260 9 CHF

**H.34 (10/84) Withdrawn (06/98)**  
Subdivision of the frequency band of a telephone-type circuit between telegraphy and other services  
*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:* 20 CHF

**H.43 (11/88) Withdrawn (06/98)**  
Document facsimile transmissions on leased telephone-type circuits  
*H.43 was an alias name of ITU-T T.10. Only this alias name was suppressed. ITU-T T.10 remains valid*  
9 CHF

**H.51 (11/88) Withdrawn (06/98)**  
Power levels for data transmission over telephone lines  
*H.51 was an alias name of ITU-T V.2. Only this alias name was suppressed. ITU-T V.2 remains valid*  
9 CHF

**H.52 (10/84) Withdrawn (06/98)**  
Transmission of wide-spectrum signals (data, facsimile, etc.) on wideband group links  
*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:* 20 CHF

**H.53 (10/84)    Withdrawn (06/98)**

Transmission of wide-spectrum signals (data, etc.)  
over wideband supergroup links

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*    20 CHF

**H.100 (11/88)    Visual telephone systems**

*Individually through the Electronic Bookshop:*    20 CHF

**H.110 (11/88)    Hypothetical reference connections  
for videoconferencing using primary digital group  
transmission**

*Individually through the Electronic Bookshop:*    20 CHF

**H.120 (03/93)    Codecs for videoconferencing using  
primary digital group transmission**

60pp            E 4311        F 4310        S 4312            24 CHF

**H.130 (11/88)    Frame structures for use in the  
international interconnection of digital codecs for  
videoconferencing or visual telephony**

*Individually through the Electronic Bookshop:*    20 CHF

**H.140 (11/88)    A multipoint international  
videoconference system**

*Individually through the Electronic Bookshop:*    20 CHF

**Infrastructure of audiovisual services***General***H.200 (03/93)    Framework for Recommendations for  
audiovisual services**

4pp            E 3790        F 3789        S 3791            8 CHF

*Transmission multiplexing and synchronization***H.221 (05/99)    Frame structure for a 64 to 1920 kbit/s  
channel in audiovisual teleservices**

*Covering note, May 2000: Erratum*

48pp            E 16658        F 16659        S 16660            22 CHF

**H.221 (03/04)    Frame structure for a 64 to 1920 kbit/s  
channel in audiovisual teleservices**

To be published...

**H.221 Erratum (12/00)    Erratum to  
Recommendation ITU-T H.221 (05/99)****H.222 (11/88)    Withdrawn (12/90)**

Frame structure for 384-1920 kbit/s channels in  
audiovisual teleservices

*Merged with ITU-T H.221 in 1990*

*Individually through the Electronic Bookshop:*

**H.222.0 (02/00)    Information technology – Generic  
coding of moving pictures and associated audio  
information: Systems**

*This edition of ITU-T H.222.0 consolidates H.222.0  
(07/1995) and its Amendments 1 and 2 (11/1996), 3 and  
4 (02/1998), 5 and 6 (05/1999), 7 (02/2000) and  
Corrigendum 1 (02/1998)*

172pp            E 17983        F 17984        S 17985            73 CHF

**Characteristics of visual telephone systems****H.222.0 (2000) Amendment 1 (12/02)**

*This amendment includes the correction introduced by  
H.222.0 (2000) Amend.1/Cor.1 (2003)*

30pp            E 23419        F 23420        S 23421            17 CHF

**H.222.0 (2000) Amendment 1 Corrigendum 1  
(06/03)**

*Never published, directly consolidated in Amend.1 to  
H.222.0 (2000)*

To be published...

**H.222.0 Amendment 2 (06/03)    Support of IPMP on  
MPEG-2 systems**

16pp            E 24494        F 24495        S 24496            12 CHF

**Infrastructure of audiovisual services****H.222.0 (2000) Amendment 2 Erratum 1 (02/04)**

*Applies to English version only*

**H.222.0 (2000) Amendment 3 (03/04)    Transport of  
AVC video data over ITU-T Recommendation  
H.222.0 | ISO/IEC 13818-1 streams**

*To be published*

To be published...

**H.222.0 (2000) Technical Cor.1 (03/01)****H.222.0 (2000) Technical Cor.2 (03/02)****H.222.1 (03/96)    Multimedia multiplex and  
synchronization for audiovisual communication in  
ATM environments**

24pp            E 7394        F 7395        S 7396            17 CHF

**H.223 (07/01)    Multiplexing protocol for low bit rate  
multimedia communication**

76pp            E 21543        F 21544        S 21545            22 CHF

**H.224 (02/00)** A real time control protocol for simplex applications using the H.221 LSD/HSD/HLP channels

20pp      E 18714    F 18715    S 18716      17 CHF

### Characteristics of visual telephone systems

**H.225.0 (07/03)** Call signalling protocols and media stream packetization for packet-based multimedia communication systems

187pp      E 24904    F 24905    S 24906      73 CHF

### Infrastructure of audiovisual services

**H.226 (09/98)** Channel aggregation protocol for multilink operation on circuit-switched networks

24pp      E 14188    F 14189    S 14190      17 CHF

### Systems aspects

**H.230 (05/99)** Frame-synchronous control and indication signals for audiovisual systems

24pp      E 16586    F 16587    S 16588      17 CHF

### Characteristics of visual telephone systems

### Transmission multiplexing and synchronization

**H.230 (03/04)** Frame-synchronous control and indication signals for audiovisual systems

29pp      E 25688                                      17 CHF

### Infrastructure of audiovisual services

### Systems aspects

**H.231 (07/97)** Multipoint control units for audiovisual systems using digital channels up to 1920 kbit/s

20pp      E 12438    F 12439    S 12440      17 CHF

**H.233 (11/02)** Confidentiality system for audiovisual services

28pp      E 23276    F 23277    S 23278      17 CHF

**H.234 (11/02)** Encryption key management and authentication system for audiovisual services

30pp      E 23294    F 23295    S 23296      17 CHF

**H.235 (08/03)** Security and encryption for H-series (H.323 and other H.245-based) multimedia terminals

129pp      E 25164    F 25165    S 25166      49 CHF

**H.239 (07/03)** Role management and additional media channels for H.300-series terminals

31pp      E 24577    F 24578    S 24579      17 CHF

### Communication procedures

**H.241 (07/03)** Extended video procedures and control signals for H.300-series terminals

*This edition includes the modifications introduced by H.241 (2003) Cor.1 approved on 15 March 2004*

24pp      E 25281    F 25282    S 25283      17 CHF

### H.241 (2003) Corrigendum 1 (03/04)

*This corrigendum was never published, its content having been included in the published ITU-T Rec. H.241 (07/2003)*

**H.242 (05/99)** System for establishing communication between audiovisual terminals using digital channels up to 2 Mbit/s

84pp      E 16887    F 16888    S 16889      39 CHF

**H.242 (03/04)** System for establishing communication between audiovisual terminals using digital channels up to 2 Mbit/s

To be published...

**H.243 (02/00)** Procedures for establishing communication between three or more audiovisual terminals using digital channels up to 1920 kbit/s

60pp      E 18147    F 18148    S 18149      29 CHF

### H.243 (2000) Corrigendum 1 (11/00)

**H.244 (07/95)** Synchronized aggregation of multiple 64 or 56 kbit/s channels

28pp      E 6467      F 6468      S 6469      15 CHF

**H.245 (07/03)** Control protocol for multimedia communication

*To be published*

313pp      E 24237    F 23239    S 23240      124 CHF

**H.246 (02/98)** Interworking of H-Series multimedia terminals with H-Series multimedia terminals and voice/voiceband terminals on GSTN and ISDN  
28pp E 13397 F 13398 S 13399 17 CHF

## Characteristics of visual telephone systems

**H.246 Annex C (07/03)** Annex C: ISDN User Part function – H.225.0 interworking  
84pp E 24945 F 24946 S 24947 34 CHF

## Infrastructure of audiovisual services

**H.246 Annex E1 (11/00)** General Inter-Working Function (IWF) between Mobile Application Part and H.225.0  
20pp E 21869 F 21870 S 21871 12 CHF

**H.246 Annex E2 (11/00)** Annex E2: ANSI-41 (Americas) Mobile Application Part and H.225.0 interworking  
56pp E 21708 F 21709 S 21710 29 CHF

**H.246 Annex F (07/01)** H.323 – H.324 interworking  
18pp E 21603 F 21604 S 21605 12 CHF

**H.247 (09/98)** Multipoint extension for broadband audiovisual communication systems and terminals  
28pp E 14267 F 14268 S 14269 17 CHF

**H.248 (06/00)** Gateway control protocol  
*This Recommendation was renumbered as H.248.1 when revised on 2002-03-29*  
132pp E 18717 F 18718 S 18719 55 CHF

**H.248/H.248.2 Annex F (11/00)** Facsimile, text conversation and call discrimination packages  
*This Annex was renumbered as Rec. H.248.2 on 2002-03-29 without further modification*

**H.248/H.248.3 Annex G (11/00)** User interface elements and actions packages  
*This Annex was renumbered as Rec. H.248.3 on 2002-03-29 without further modification*

**H.248/H.248.4 Annex H (11/00)** Transport over SCTP  
*This Annex was renumbered as Rec. H.248.4 on 2002-03-29 without further modification*

**H.248/H.248.5 Annex I (11/00)** Transport over ATM  
*This Annex was renumbered as Rec. H.248.5 on 2002-03-29 without further modification*

**H.248/H.248.6 Annex J (11/00)** Dynamic Tone Definition package  
*This Annex was renumbered as Rec. H.248.6 on 2002-03-29 without further modification*

**H.248/H.248.10 Annex M2 (07/01)** Gateway control protocol: Media gateway resource congestion handling package  
*This Annex was renumbered as H.248.10 on 2002-03-29 without further modification*  
10pp E 20828 F 20829 S 20830 9 CHF

**H.248/H.248.12 Annex M4 (07/01)** This annex was renumbered as H.248.12 on 2002-03-29 without further modification  
*This Annex was renumbered as H.248.12 on 29-03-2002 without further modification*  
30pp E 20891 F 20892 S 20893 17 CHF

**H.248.1 (05/02)** Gateway control protocol: Version 2  
150pp E 23024 F 23025 S 23026 61 CHF

## H.248.1 V2 (2002) Corrigendum 1 (03/04)

**H.248.2 (11/00)** Gateway control protocol: Facsimile, text conversation and call discrimination packages  
*This Recommendation was first approved and published as Annex F to H.248, and then renumbered as H.248.2 on 2002-03-29 without further modification*  
48pp E 22613 F 22614 S 22615 22 CHF

**H.248.2/H.248 Annex F (11/00)** Facsimile, text conversation and call discrimination packages  
*This Annex was renumbered as Rec. H.248.2 on 2002-03-29 without further modification*  
To be published...

**H.248.3 (11/00)** Gateway control protocol: User interface elements and actions packages  
*This Recommendation was first approved and published as Annex G to H.248, and then renumbered as H.248.3 on 2002-03-29 without further modification*  
16pp E 22431 F 22432 S 22433 12 CHF

**H.248.3/H.248 Annex G (11/00)** User interface elements and actions packages  
*This Annex was renumbered as Rec. H.248.3 on 2002-03-29 without further modification*  
To be published...

## H.248.3 (2000) Corrigendum 1 (03/04)

**H.248.4 (11/00)** Gateway control protocol: Transport over Stream Control Transmission Protocol (SCTP)

*This Recommendation was first approved and published as Annex H to H.248, and then renumbered as H.248.4 on 2002-03-29 without further modification*

8pp      E 22434    F 22435    S 22436      9 CHF

**H.248.4/H.248 Annex H (11/00)** Transport over SCTP

*This Annex was renumbered as Rec. H.248.4 on 2002-03-29 without further modification*

**H.248.4 (2000) Corrigendum 1 (03/04)**

**H.248.5 (11/00)** Gateway control protocol: Transport over ATM

*This Recommendation was first approved and published as Annex I to H.248, and then renumbered as H.248.5 on 2002-03-29 without further modification*

12pp      E 21481    F 21482    S 21483      9 CHF

**H.248.5/H.248 Annex I (11/00)** Transport over ATM

*This Annex was renumbered as Rec. H.248.5 on 2002-03-29 without further modification*

**H.248.6 (11/00)** Gateway control protocol: Dynamic Tone Definition package

*This Recommendation was first approved and published as Annex J to H.248, and then renumbered as H.248.6 on 2002-03-29 without further modification*

12pp      E 21478    F 21479    S 21480      9 CHF

**H.248.6/H.248 Annex J (11/00)** Dynamic Tone Definition package

*This Annex was renumbered as Rec. H.248.6 on 2002-03-29 without further modification*

To be published...

**H.248.7 (03/04)** Gateway control protocol: Generic Announcement package

*Approved as Corr.1 to H.248.7 (2000), but due to the number of modifications, it was decided to publish it as a new edition*

To be published...

**H.248.7 (2000) Corrigendum 1 (03/04)**

To be published...

**H.248.8 (03/02)** Gateway control protocol: Error code and service change reason description

*The former Annex L to H.248 was renumbered as H.248.8 when revised on 2002-03-29*

24pp      E 22437    F 22438    S 22439      17 CHF

**H.248.8 (2002) Amendment 1 (03/04)** New error code 458 (Unexpected Event/RequestID)

9pp      E 25450      9 CHF

**H.248.9 (03/02)** Gateway control protocol: Advanced media server packages

*Drafted as H.248 Annex M1, renumbered and published as H.248.9*

52pp      E 22379    F 22380    S 22381      22 CHF

**H.248.10 (07/01)** Gateway control protocol: Media gateway resource congestion handling package

*This Recommendation was first approved and published as Annex M2 to H.248, and then renumbered as H.248.10 on 2002-03-29 without further modification*

9pp      E 22160    F 22161    S 22162      9 CHF

**H.248.10/H.248 Annex M2 (07/01)** Gateway control protocol: Media gateway resource congestion handling package

*This Annex was renumbered as H.248.10 on 2002-03-29 without further modification*

**H.248.11 (11/02)** Gateway control protocol: Media gateway overload control package

24pp      E 23377    F 23378    S 23379      17 CHF

**H.248.12 (07/01)** Gateway control protocol: H.248.1 packages for H.323 and H.324 interworking

*This Recommendation was first approved and published as Annex M4 to H.248, and renumbered as H.248.12 on 2002-03-29 without further modification*

32pp      E 22183    F 22184    S 22185      17 CHF

**H.248.12 (2001) Amendment 1 (11/02)** New Annex A: Extended H.324, H.245 command and H.245 indication packages

18pp      E 23329    F 23330    S 23331      12 CHF

**H.248.12/H.248 Annex M4 (07/01)** This annex was renumbered as H.248.12 on 2002-03-29 without further modification

*This Annex was renumbered as H.248.12 on 29-03-2002 without further modification*

To be published...

**H.248.13 (03/02)** Gateway control protocol: Quality Alert Ceasing package

*Drafted as H.248 Annex M5, renumbered and published as H.248.13*

10pp      E 22163    F 22164    S 22165      9 CHF

**H.248.14 (03/02)** Gateway control protocol: Inactivity timer package

*Drafted as H.248 Annex M6, renumbered and published as H.248.14*

9pp      E 22166    F 22167    S 22168      9 CHF





**H.262 (02/00)** Information technology – Generic coding of moving pictures and associated audio information: Video

*This edition of ITU-T H.262 consolidates H.262 (07/1995) and its Amendments 1 and 2 (11/1996), 3 and 4 (02/1998), 5 (05/1999), 6 (02/2000) and Corrigenda 1 and 2 (11/1996)*

216pp E 18106 F 18107 S 18108 96 CHF

**H.262 (2000) Amendment 1 (11/00)** Amendment 1: Video elementary stream content description data

24pp E 19813 F 19814 S 19815 17 CHF

**H.262 (2000) Amendment 1 Erratum 1 (04/02)** Erratum 1

**H.262 (2000) Technical Cor. 1 (11/00)**

**H.263 (02/98)** Video coding for low bit rate communication

164pp E 13923 F 13924 S 13925 73 CHF

**H.263 Annex U (11/00)** Enhanced reference picture selection mode

40pp E 20590 F 20591 S 20592 22 CHF

**H.263 Annex V (11/00)** Data partitioned slice (DPS)

16pp E 20158 F 20159 S 20160 12 CHF

**H.263 Annex W (11/00)** Additional supplemental enhancement information

24pp E 20150 F 20151 S 20152 22 CHF

**H.263 Annex X (04/01)** Annex X: Profiles and levels definition

22pp E 20777 F 20778 S 20779 17 CHF

**H.263 Annex X (03/04)** Profiles and levels definition

21pp E 25557 17 CHF

**H.263 Appendix II (06/01)** Recommended optional enhancement

**H.263 Appendix III (06/01)** Video coding for low bit rate communication

Appendix III: Examples for H.263 encoder/decoder implementations

52pp E 22010 F 22011 S 22012 22 CHF

**H.264 (05/03)** Advanced video coding for generic audiovisual services

To be published...

## Related systems aspects

**H.281 (11/94)** A far end camera control protocol for videoconferences using H.224

8pp E 5897 F 5896 S 5898 11 CHF

**H.282 (05/99)** Remote device control protocol for multimedia applications

76pp E 16742 F 16743 S 16744 34 CHF

**H.283 (05/99)** Remote device control logical channel transport

20pp E 16661 F 16662 S 16663 17 CHF

## Systems and terminal equipment for audiovisual services

**H.310 (09/98)** Broadband audiovisual communication systems and terminals

68pp E 14273 F 14274 S 14275 34 CHF

**H.320 (05/99)** Narrow-band visual telephone systems and terminal equipment

32pp E 16664 F 16665 S 16666 17 CHF

**H.320 (03/04)** Narrow-band visual telephone systems and terminal equipment

To be published...

**H.321 (02/98)** Adaptation of H.320 visual telephone terminals to B-ISDN environments

28pp E 13459 F 13460 S 13461 17 CHF

**H.322 (03/96)** Visual telephone systems and terminal equipment for local area networks which provide a guaranteed quality of service

8pp E 7316 F 7317 S 7318 9 CHF

**H.323 (07/03)** Packet-based multimedia communications systems

*This version 5 of H.323 integrates without further modifications Annexes M3 (07/2001), P (01/2003), Q (07/2001) and R (07/2001) that were published separately, and Annex O that was approved independently on 07/2003*

297pp E 25180 F 25181 S 25182 96 CHF

## Infrastructure of audiovisual services

### Systems and terminal equipment for audiovisual services

**H.323 Annex Q (07/01)** Far-end camera control and H.281/H.224

12pp E 20807 F 20808 S 20809 9 CHF

**H.324 (03/02)** Terminal for low bit-rate multimedia communication

78pp E 22325 F 22326 S 22327 34 CHF

#### **H.324 (2002) Corrigendum 1 (11/02)**

**H.331 (03/93)** Broadcasting type audiovisual multipoint systems and terminal equipment

5pp E 4084 F 4083 S 4085 8 CHF

**H.332 (09/98)** H.323 extended for loosely coupled conferences

24pp E 14308 F 14309 S 14310 17 CHF

**H.341 (05/99)** Multimedia management information base

*This Recommendation includes one diskette containing the formal descriptions of Annexes A, B, C, D and E for the multimedia management information base.*

E 17360 F 17361 S 17362 50 CHF

**H.350 (08/03)** Directory services architecture for multimedia conferencing

E 24266 F 24267 S 24268 17 CHF

**H.350.1 (08/03)** Directory services architecture for H.323

E 24269 F 24270 S 24271 12 CHF

**H.350.2 (08/03)** Directory services architecture for H.235

E 24272 F 24273 S 24274 12 CHF

**H.350.3 (08/03)** Directory services architecture for H.320

E 24275 F 24276 S 24277 12 CHF

**H.350.4 (08/03)** Directory services architecture for SIP

18pp E 24186 F 24187 S 24188 12 CHF

**H.350.5 (08/03)** Directory services architecture for non-standard protocols

E 24434 F 24435 S 24436 12 CHF

**H.360 (03/04)** An architecture for end-to-end QoS control and signalling

To be published...

#### **Supplementary services for multimedia**

**H.450.1 (02/98)** Generic functional protocol for the support of supplementary services in H.323

24pp E 13262 F 13263 S 13264 17 CHF

**H.450.2 (02/98)** Call transfer supplementary service for H.323

48pp E 13538 F 13539 S 13540 22 CHF

**H.450.3 (02/98)** Call diversion supplementary service for H.323

68pp E 13528 F 13529 S 13530 34 CHF

**H.450.4 (05/99)** Call hold supplementary service for H.323

28pp E 16830 F 16831 S 16832 17 CHF

**H.450.5 (05/99)** Call park and call pickup supplementary services for H.323

*Covering note, May 2000: Erratum*

56pp E 16908 F 16909 S 16910 29 CHF

#### **Infrastructure of audiovisual services**

##### *Supplementary services for multimedia*

**H.450.5 Erratum (05/00)** Erratum to Recommendation ITU-T H.450.5 (05/99)

**H.450.5 Erratum 2 (04/02)** Erratum 2

**H.450.6 (05/99)** Call waiting supplementary service for H.323

16pp E 16776 F 16777 S 16778 12 CHF

**H.450.7 (05/99)** Message waiting indication supplementary service for H.323

28pp E 16911 F 16912 S 16913 17 CHF

**H.450.8 (02/00)** Name identification supplementary service for H.323

12pp E 17818 F 17819 S 17820 12 CHF

**H.450.9 (11/00)** Call Completion Supplementary Services for H.323

66pp E 20267 F 20268 S 20269 29 CHF

**H.450.10 (03/01)** Call offering supplementary services for H.323

30pp E 20706 F 20707 S 20708 17 CHF

**H.450.11 (03/01)** Call intrusion supplementary services

60pp E 20743 F 20744 S 20745 29 CHF

**H.450.12 (07/01)** Common Information Additional Network Feature for H.323

34pp E 21040 F 21041 S 21042 17 CHF

**H.460.1 (03/02)** Guidelines for the use of the generic extensible framework

22pp E 22423 F 22424 S 22425 17 CHF

#### **Supplementary services for multimedia**

**H.460.2 (07/01)** Number Portability interworking between H.323 and SCN networks

16pp E 20960 F 20961 S 20962 12 CHF

## Supplementary services for multimedia

- H.460.3 (11/02)** Circuit maps within H.323 systems  
12pp E 23200 F 23201 S 23202 9 CHF
- H.460.4 (11/02)** Call priority designation for H.323 calls  
18pp E 23249 F 23250 S 23251 12 CHF
- H.460.5 (11/02)** H.225.0 transport of multiple Q.931 information elements of the same type  
10pp E 23197 F 23198 S 23199 9 CHF
- H.460.6 (11/02)** Extended Fast Connect feature  
20pp E 23416 F 23417 S 23418 12 CHF
- H.460.7 (11/02)** Digit maps within H.323 systems  
20pp E 23326 F 23327 S 23328 12 CHF
- H.460.8 (11/02)** Querying for alternate routes within H.323 systems  
12pp E 23253 F 23254 S 23255 9 CHF
- H.460.9 (11/02)** Support for online QoS-monitoring reporting within H.323 systems  
16pp E 23244 F 23245 S 23246 12 CHF
- H.460.9 (2002) Amendment 1 (03/04)**  
New Annex B – Extended performance metrics  
12pp E 25337 9 CHF
- H.460.10 (03/04)** Call party category  
To be published...
- H.460.11 (03/04)** Delayed call establishment within H.323 systems  
To be published...
- H.460.12 (03/04)** Glare control indicator within H.323 systems  
10pp E 25444 9 CHF
- H.460.13 (03/04)** Called user release control  
To be published...
- H.460.14 (03/04)** Support for Multi-Level Precedence and Preemption (MLPP) within H.323 systems  
To be published...

**H.460.15 (03/04)** Call signalling transport channel suspension and redirection

To be published...

## Mobility and Collaboration procedures

### Mobility and Collaboration procedures

*Overview of Mobility and Collaboration, definitions, protocols and procedures*

**H.501 (03/02)** Protocol for mobility management and intra/inter-domain communication in multimedia systems

46pp E 22624 F 22625 S 22626 22 CHF

*Mobility for H-Series multimedia systems and services*

**H.510 (03/02)** Mobility for H.323 multimedia systems and services

34pp E 22548 F 22549 S 22550 17 CHF

*Security for mobile multimedia collaboration applications and services*

**H.530 (03/02)** Symmetric security procedures for H.323 mobility in H.510

30pp E 22542 F 22543 S 22544 17 CHF

### H.530 Corrigendum 1 (07/03)

**H.610 (07/03)** Full-Service VDSL – System architecture and customer premises equipment

127pp E 25152 F 25153 S 25154 49 CHF

**H.611 (07/03)** Full-Service VDSL – Operations, Administration Maintenance & Provision aspects

39pp E 24714 F 24715 S 24716 22 CHF

**Suppl. 1 (05/99)** Application profile – Sign language and lip-reading real-time conversation using low bit-rate video communication

*This Supplement includes one CD-ROM containing the video clip 'Irene' to be used as test material for video coding of sign language.*

16pp E 16654 F 16655 S 16656 137 CHF

**Suppl. 2 (04/04)** H.248.x sub-series packages guide – Release 5

26pp E 25258 F 25259 S 25260 17 CHF

**Suppl. 3 (03/04)** Operator requirements for full-service VDSL in ITU-T Recommendations H.610 and H.611  
40pp E 24605 F 24606 S 24607 22 CHF

**Suppl. 4 (03/04)** Repository of generic parameters for the ITU-T Recommendations sub-series H.460.x  
10pp E 24245 F 24246 S 24247 9 CHF

**Suppl. 4 (04/04)** Repository of generic parameters for the ITU-T Recommendations H.460.x sub-series  
10pp E 25380 F 25381 S 25382 9 CHF

## SERIES I Integrated services digital network

### Internetwork interfaces

#### Supplements to the Series I Recommendations

**Suppl. 1 (03/98)** Generic service descriptions for ten supplementary services defined in I.250 – Series Recommendations  
32pp E 13516 F 13517 S 13518 17 CHF

### General structure

#### Terminology

**I.110 (11/88) Withdrawn (03/93)**  
Preamble and general structure of the I-Series Recommendations for the integrated services digital network (ISDN)

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**I.111 (11/88) Withdrawn (03/93)**  
Relationship with other Recommendations relevant to ISDNs

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**I.112 (03/93)** Vocabulary of terms for ISDNs  
16pp E 3844 F 3843 S 3845 15 CHF

**I.112 Appendix I (02/02)** General telecommunication terminology and definitions  
8pp E 22198 F 22199 S 22201 9 CHF

**I.113 (06/97)** Vocabulary of terms for broadband aspects of ISDN  
32pp E 11687 F 11688 S 11689 17 CHF

**I.114 (03/93)** Vocabulary of terms for universal personal telecommunication  
4pp E 3726 F 3725 S 3727 8 CHF

#### Description of ISDNs

**I.120 (03/93)** Integrated services digital networks (ISDNs)  
2pp E 3814 F 3813 S 3815 8 CHF

**I.121 (04/91)** Broadband aspects of ISDN  
2pp E 2009 F 2008 S 2010 7 CHF

**I.122 (03/93)** Framework for frame mode bearer services  
1pp E 3655 F 3654 S 3656 8 CHF

#### General modelling methods

**I.130 (11/88)** Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN  
*Individually through the Electronic Bookshop:* 20 CHF

#### Telecommunication network and service attributes

**I.140 (03/93)** Attribute technique for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN  
16pp E 4032 F 4031 S 4033 15 CHF

**I.141 (11/88)** ISDN network charging capabilities attributes  
*Individually through the Electronic Bookshop:* 20 CHF

#### General description of asynchronous transfer mode

**I.150 (02/99)** B-ISDN asynchronous transfer mode functional characteristics  
16pp E 16116 F 16117 S 16118 12 CHF

### Service capabilities

#### Scope

**I.200 (11/88)** Guidance to the I.200-Series of Recommendations  
*Individually through the Electronic Bookshop:* 20 CHF

#### General aspects of services in ISDN

**I.210 (03/93)** Principles of telecommunication services supported by an ISDN and the means to describe them  
28pp E 3902 F 3901 S 3903 15 CHF

**I.211 (03/93)** B-ISDN service aspects  
13pp E 3802 F 3801 S 3803 11 CHF

### *Common aspects of services in the ISDN*

**I.220 (11/88)** Common dynamic description of basic telecommunication services  
*Individually through the Electronic Bookshop:* 20 CHF

**I.221 (03/93)** Common specific characteristics of services  
4pp E 3805 F 3804 S 3806 8 CHF

### *Bearer services supported by an ISDN*

**I.230 (11/88)** Definition of bearer service categories  
*Individually through the Electronic Bookshop:* 20 CHF

#### *I.231 Circuit-mode bearer service categories*

**I.231.1 (11/88)** Circuit-mode 64 kbit/s unrestricted, 8 kHz structured bearer service  
*Individually through the Electronic Bookshop:* 20 CHF

**I.231.2 (11/88)** Circuit-mode 64 kbit/s, 8 kHz structured bearer service usable for speech information transfer  
*Individually through the Electronic Bookshop:* 20 CHF

**I.231.3 (11/88)** Circuit-mode 64 kbit/s, 8 kHz structured bearer service usable for 3.1 kHz audio information transfer  
*Individually through the Electronic Bookshop:* 20 CHF

**I.231.4 (11/88)** Circuit-mode, alternate speech / 64 kbit/s unrestricted, 8 kHz structured bearer service  
*Individually through the Electronic Bookshop:* 20 CHF

**I.231.5 (11/88)** Circuit-mode 2 x 64 kbit/s unrestricted, 8 kHz structured bearer service  
*Individually through the Electronic Bookshop:* 20 CHF

**I.231.6 (07/96)** Circuit-mode 384 kbit/s unrestricted, 8 kHz structured bearer service  
8pp E 9600 F 9607 S 9608 9 CHF

**I.231.7 (07/96)** Circuit-mode 1536 kbit/s unrestricted, 8 kHz structured bearer service  
8pp E 9609 F 9610 S 9611 9 CHF

**I.231.8 (07/96)** Circuit-mode 1920 kbit/s unrestricted, 8 kHz structured bearer service  
8pp E 9612 F 9613 S 9614 9 CHF

**I.231.9 (03/93)** Circuit-mode 64 kbit/s 8 kHz structured multi-use bearer service  
6pp E 4180 F 4179 S 4181 11 CHF

**I.231.10 (08/92)** Circuit-mode multiple-rate unrestricted 8 kHz structured bearer service  
5pp E 2915 F 2911 S 2919 8 CHF

#### *I.232 Packet-mode bearer services categories*

**I.232.1 (11/88)** Virtual call and permanent virtual circuit bearer service category  
*Individually through the Electronic Bookshop:* 20 CHF

**I.232.2 (11/88)** Connectionless bearer service category

*Empty Recommendation Note – This connectionless bearer service category is a different concept from, and should not be confused with, the OSI Connectionless Mode Network Service. Thus, the name of this service may change as the service is better defined. Further aspects of this bearer service category are for further study.*

*This service has only been identified and requires further study*

**I.232.3 (03/93)** User signalling bearer service category (USBS)  
13pp E 4216 F 4215 S 4217 11 CHF

#### *I.233 Frame mode bearer services*

**I.233.1 (10/91)** ISDN frame relaying bearer service  
*Published with ITU-T I.233.2.*  
34pp E 2597 F 2633 S 2664 20 CHF

**I.233.1 Annex F (07/96)** Frame relay multicast  
16pp E 7326 F 7327 S 7328 12 CHF

**I.233.2 (10/91)** ISDN frame switching bearer service  
*Published with ITU-T I.233.1.*  
18pp E 2597 F 2633 S 2664 20 CHF

**I.240 (11/88)** Definition of teleservices  
*Individually through the Electronic Bookshop:* 20 CHF

#### *I.241 Teleservices supported by an ISDN*

**I.241.1 (11/88)** Telephony  
*Individually through the Electronic Bookshop:* 20 CHF

**I.241.2 (11/88)** Teletex  
*Individually through the Electronic Bookshop:* 20 CHF

**I.241.3 (11/88)** Telefax 4  
*Individually through the Electronic Bookshop:* 20 CHF



<b>I.241.4 (11/88)</b>	Mixed mode				
	<i>Individually through the Electronic Bookshop:</i>	20	CHF		
<b>I.241.5 (11/88)</b>	Videotex				
	<i>Individually through the Electronic Bookshop:</i>	20	CHF		
<b>I.241.6 (11/88)</b>	Telex				
	<i>Individually through the Electronic Bookshop:</i>	20	CHF		
<b>I.241.7 (03/93)</b>	Telephony 7 kHz teleservice				
	5pp	E 3868	F 3867	S 3869	8 CHF
<b>I.241.8 (10/95)</b>	Teleaction stage one service description				
	16pp	E 6503	F 6504	S 6505	11 CHF

### *Supplementary services in ISDN*

<b>I.250 (11/88)</b>	Definition of supplementary services				
	<i>Individually through the Electronic Bookshop:</i>	20	CHF		

#### *I.251 Number identification supplementary services*

<b>I.251.1 (08/92)</b>	Direct-dialling-In				
	4pp	E 2831	F 2796	S 2866	8 CHF
<b>I.251.2 (08/92)</b>	Multiple Subscriber Number				
	5pp	E 2824	F 2789	S 2859	8 CHF
<b>I.251.3 (08/92)</b>	Calling Line Identification Presentation				
	9pp	E 2827	F 2792	S 2862	11 CHF
<b>I.251.4 (08/92)</b>	Calling Line Identification Restriction				
	16pp	E 2832	F 2797	S 2867	7 CHF
<b>I.251.5 (02/95)</b>	Connected Line Identification Presentation (COLP)				
	7pp	E 5900	F 5899	S 5901	11 CHF
<b>I.251.6 (02/95)</b>	Connected Line Identification Restriction (COLR)				
	6pp	E 5903	F 5902	S 5904	8 CHF
<b>I.251.7 (08/92)</b>	Malicious call Identification				
	8pp	E 2825	F 2790	S 2860	8 CHF
<b>I.251.8 (08/92)</b>	Sub-addressing supplementary service				
	6pp	E 2826	F 2791	S 2861	8 CHF
<b>I.251.9 (07/96)</b>	Calling name identification presentation				
	16pp	E 7397	F 7398	S 7399	12 CHF
<b>I.251.10 (07/96)</b>	Number identification supplementary services : Calling name identification restriction				
	16pp	E 7362	F 7363	S 7364	12 CHF

#### *I.252 Call offering supplementary services*

<b>I.252.1 (11/88)</b>	Call Transfer				
	<i>Individually through the Electronic Bookshop:</i>	20	CHF		

<b>I.252.2 (08/92)</b>	Call Forwarding Busy				
	15pp	E 2895	F 2892	S 2898	11 CHF
<b>I.252.3 (08/92)</b>	Call Forwarding No Reply				
	9pp	E 2896	F 2893	S 2899	11 CHF
<b>I.252.4 (08/92)</b>	Call Forwarding Unconditional				
	11pp	E 2897	F 2894	S 2900	11 CHF
<b>I.252.5 (08/92)</b>	Call Deflection				
	9pp	E 2903	F 2901	S 2905	11 CHF
<b>I.252.6 (11/88)</b>	Call offering supplementary services: Line Hunting (LH)				
	<i>Individually through the Electronic Bookshop:</i>	20	CHF		

<b>I.252.7 (05/97)</b>	Explicit call transfer				
	16pp	E 12144	F 12145	S 12146	12 CHF

#### *I.253 Call completion supplementary services*

<b>I.253.1 (11/88)</b>	Call waiting (CW) supplementary service				
	12pp	E 1896	F 1895	S 1897	10 CHF
<b>I.253.2 (08/92)</b>	Call Hold				
	8pp	E 2883	F 2875	S 2891	8 CHF
<b>I.253.3 (07/96)</b>	Completion of calls to busy subscribers				
	28pp	E 7424	F 7425	S 7426	17 CHF
<b>I.253.4 (07/96)</b>	Completion of calls on no reply				
	24pp	E 7400	F 7401	S 7402	17 CHF

#### *I.254 Multiparty supplementary services*

<b>I.254.1 (11/88)</b>	Conference calling (CONF)				
	<i>Individually through the Electronic Bookshop:</i>	20	CHF		
<b>I.254.2 (08/92)</b>	Three-Party Supplementary Service				
	10pp	E 2904	F 2902	S 2906	11 CHF
<b>I.254.5 (05/97)</b>	Meet-me conference				
	12pp	E 11988	F 11989	S 11990	12 CHF

#### *I.255 Community of interest supplementary services*

<b>I.255.1 (08/92)</b>	Closed User Group				
	14pp	E 2916	F 2912	S 2920	11 CHF
<b>I.255.2 (07/96)</b>	Support of Private Numbering Plans				
	12pp	E 7499	F 7500	S 7501	12 CHF
<b>I.255.3 (07/90)</b>	Multi-level precedence and preemption service (MLPP)				
	9pp	E 1899	F 1898	S 1900	10 CHF



**I.255.4 (07/90)** Priority service  
6pp E 1902 F 1901 S 1903 7 CHF

**I.255.5 (08/92)** Outgoing call barring  
6pp E 2917 F 2913 S 2921 8 CHF

### *I.256 Charging supplementary services*

**I.256.1 (11/88)** Credit Card Calling (CRED)  
*Empty Recommendation. This subject has only been identified and is left for further study.*  
*Individually through the Electronic Bookshop:*

**I.256.2a (03/93)** Advice of charge: charging information at call set-up time (AOC-S)  
9pp E 4207 F 4206 S 4208 11 CHF

**I.256.2b (03/93)** Advice of charge: charging information during the call (AOC-D)  
8pp E 4210 F 4209 S 4211 11 CHF

**I.256.2c (03/93)** Advice of charge: charging information at the end of the call (AOc-E)  
7pp E 4219 F 4218 S 4220 11 CHF

**I.256.3 (08/92)** Reverse charging  
10pp E 2986 F 2979 S 2993 11 CHF

### *I.257 Additional information transfer*

**I.257.1 (10/95)** User-to-User Signalling (UUS)  
20pp E 6518 F 6519 S 6520 15 CHF

### *I.258 Mobility and modification supplementary services*

**I.258.1 (10/95)** Terminal portability (TP)  
12pp E 6612 F 6613 S 6614 11 CHF

**I.258.2 (02/95)** In-call modification (IM)  
12pp E 5906 F 5905 S 5907 11 CHF

### *I.259 Screening supplementary services*

**I.259.1 (07/96)** Address screening (ADS)  
12pp E 7427 F 7428 S 7429 12 CHF

## **Overall network aspects and functions**

### *Network functional principles*

**I.310 (03/93)** ISDN – Network functional principles  
18pp E 3874 F 3873 S 3875 15 CHF

**I.311 (08/96)** B-ISDN general network aspects  
40pp E 11046 F 11047 S 11048 22 CHF

**I.311 (1996) Amendment 1 (03/00)**  
4pp E 19320 F 19321 S 19322 9 CHF

**I.312/Q.1201 (10/92)** Principles of intelligent network architecture  
*This Recommendation is published with the double number Q.1201 and I.312*  
37pp E 3246 F 3245 S 3247 20 CHF

**I.313 (09/97)** B-ISDN network requirements  
40pp E 12490 F 12491 S 12492 22 CHF

### *Reference models*

**I.320 (11/93)** ISDN protocol reference model  
15pp E 5175 F 5229 S 5264 11 CHF

**I.321 (04/91)** B-ISDN protocol reference model and its application  
*Covering note, May 2000: Erratum*  
7pp E 2054 F 2053 S 2055 10 CHF

**I.322 (02/99)** Generic protocol reference model for telecommunication networks  
20pp E 15611 F 15612 S 15613 17 CHF

**I.324 (10/91)** ISDN network architecture  
17pp E 2599 F 2628 S 2659 15 CHF

**I.325 (03/93)** Reference configurations for ISDN connection types  
13pp E 3905 F 3904 S 3906 11 CHF

**I.326 (11/88) Withdrawn (03/93)**  
Reference configuration for relative network resource requirements  
*Deleted after its content became technically out of date*

**I.326 (03/03)** Functional architecture of transport networks based on ATM  
21pp E 24307 F 24308 S 24309 17 CHF

**I.327 (03/93)** B-ISDN functional architecture  
11pp E 3871 F 3870 S 3872 11 CHF

**I.328/Q.1202 (09/97)** Intelligent network – Service plane architecture  
*This Recommendation is published with the double number Q.1202 and I.328*  
24pp E 12967 F 12968 S 12969 17 CHF

**I.329/Q.1203 (09/97)** Intelligent network – Global functional plane architecture  
*This Recommendation is published with the double number Q.1203 and I.329. For more details see I.329*  
 16pp E 12911 F 12912 S 12913 12 CHF

**I.330 (11/88)** ISDN numbering and addressing principles  
*Individually through the Electronic Bookshop:* 20 CHF

### Numbering, addressing and routing

**I.331 (05/97)** The international public telecommunication numbering plan  
*This Recommendation is published under alias number E.164*  
 E 11877 F 11878 S 11879 17 CHF

**I.333 (03/93)** Terminal selection in ISDN  
 32pp E 4072 F 4071 S 4073 20 CHF

**I.334 (11/88)** Principles relating ISDN numbers/sub-addresses to the OSI reference model network layer addresses  
*Individually through the Electronic Bookshop:* 20 CHF

**I.335 (11/88) Withdrawn (10/92)**  
 ISDN routing principles  
*Superseded by ITU-T E.172 (1992)*  
*Individually through the Electronic Bookshop:*

### Connection types

**I.340 (11/88)** ISDN connection types  
*Individually through the Electronic Bookshop:* 20 CHF

### Performance objectives

**I.350 (03/93)** General aspects of quality of service and network performance in digital networks, including ISDNs  
 13pp E 3829 F 3828 S 3830 11 CHF

**I.351/Y.801/Y.1501 (10/00)** Relationships among ISDN, Internet protocol, and GII performance recommendations  
 24pp E 18937 F 18938 S 18939 17 CHF

**I.352 (03/93)** Network performance objectives for connection processing delays in an ISDN  
 19pp E 3877 F 3876 S 3878 15 CHF

**I.353 (08/96)** Reference events for defining ISDN and B-ISDN performance parameters  
 20pp E 10018 F 10019 S 10020 17 CHF

**I.354 (03/93)** Network performance objectives for packet-mode communication in an ISDN  
 9pp E 3637 F 3636 S 3638 11 CHF

**I.355 (10/00)** ISDN 64 kbit/s connection type availability performance  
 28pp E 19179 F 19180 S 19181 17 CHF

**I.356 (03/00)** B-ISDN ATM layer cell transfer performance  
 64pp E 19773 F 19774 S 19775 29 CHF

**I.356 (2000) Amendment 1 (02/04)**  
 New Appendix V – Support of Y.1541 QoS classes 0 and 2 in ATM-based networks  
 8pp E 25225 F 25226 S 25227 9 CHF

**I.357 (11/00)** B-ISDN semi-permanent connection availability  
 20pp E 19909 F 19910 S 19911 12 CHF

**I.358 (09/03)** Call processing performance for switched virtual channel connections (VCCs) in a B-ISDN  
 42pp E 24595 F 24596 S 24597 22 CHF

**I.359 (02/99)** Accuracy and dependability of ISDN 64 kbit/s circuit-mode connection types  
 12pp E 15576 F 15577 S 15578 12 CHF

### Protocol layer requirements

**I.361 (02/99)** B-ISDN ATM layer specification  
 40pp E 16113 F 16114 S 16115 22 CHF

**I.362 (03/93) Withdrawn (06/97)**  
 B-ISDN ATM adaptation layer (AAL) functional description  
*Deleted, since the service classes defined therein were no longer appropriate and were in conflict with F-Series Recommendations*  
 3pp E 3658 F 3657 S 3659 8 CHF

### I.363 B-ISDN ATM Adaptation Layer (AAL) specification

**I.363.1 (08/96)** Type 1 AAL  
 44pp E 11626 F 11627 S 11628 22 CHF

**I.363.2 (11/00)** B-ISDN ATM Adaptation Layer specification : Type 2 AAL  
 60pp E 20401 F 20402 S 20403 29 CHF

**I.363.3 (08/96)** Type 3/4 AAL  
 56pp E 11170 F 11171 S 11172 29 CHF

**I.363.5 (08/96)** Type 5 AAL  
 48pp E 11192 F 11193 S 11194 22 CHF

**I.364 (02/99)** Support of the broadband connectionless data bearer service by the B-ISDN  
 84pp E 15886 F 15887 S 15888 39 CHF

### *I.365 B-ISDN ATM adaptation layer sublayers*

**I.365.1 (11/93)** Frame relaying service specific convergence sublayer (FR-SSCS)  
 8pp E 5189 F 5237 S 5272 11 CHF

**I.365.2 (11/95)** Service-specific coordination function to provide the connection-oriented network service  
 104pp E 7281 F 7282 S 7284 44 CHF

**I.365.3 (11/95)** Service-specific coordination function to provide the connection-oriented transport service  
 84pp E 7160 F 7161 S 7162 34 CHF

**I.365.4 (08/96)** Service-specific convergence sublayer for HDLC applications  
 12pp E 11015 F 11016 S 11017 12 CHF

**I.366.1 (06/98)** Segmentation and Reassembly Service Specific Convergence Sublayer for the AAL type 2  
 36pp E 13820 F 13821 S 13822 22 CHF

### **I.366.1 Corrigendum 1 (02/02)**

To be published...

**I.366.2 (11/00)** AAL type 2 service specific convergence sublayer for narrow-band services  
 130pp E 20196 F 20197 S 20198 49 CHF

### **I.366.2 (2000) Corrigendum 1 (03/02)**

### *General network requirements and functions*

**I.370 (10/91)** Congestion management for the ISDN frame relaying bearer service  
 10pp E 2354 F 2332 S 2376 12 CHF

**I.371 (03/00)** Traffic control and congestion control in B-ISDN  
 132pp E 19872 F 19873 S 19874 49 CHF

**I.371.1 (06/97) Withdrawn (10/00)**  
 Traffic control and congestion control in B-ISDN: conformance definitions for ABT and ABR

*Deleted, its content having been integrated in ITU-T I.371 (03/2000)*

32pp E 11802 F 11803 S 11804 17 CHF

**I.371.1 (11/00)** Guaranteed frame rate ATM transfer capability  
 22pp E 20161 F 20162 S 20163 17 CHF

**I.372 (03/93)** Frame relaying bearer service network-to-network interface requirements  
 10pp E 3808 F 3807 S 3809 11 CHF

**I.373 (03/93)** Network capabilities to support universal personal telecommunication (UPT)  
 16pp E 3799 F 3798 S 3800 15 CHF

**I.374 (03/93) Withdrawn (06/98)**  
 Framework Recommendation on "network capabilities to support multimedia services"  
*Replaced by ITU-T I.375.1 and ITU-T I.375.2*

7pp E 3820 F 3819 S 3821 11 CHF

### *I.375 Network capabilities to support multimedia services*

**I.375.1 (06/98)** General aspects  
 16pp E 13488 F 13489 S 13490 17 CHF

**I.375.2 (06/98)** Example of multimedia retrieval service class – Video-on-demand service using an ATM based network  
 28pp E 13592 F 13593 S 13594 17 CHF

**I.375.3 (03/00)** Example of multimedia distribution service class – Switched digital broadcasting  
 12pp E 19442 F 19443 S 19444 12 CHF

**I.376 (03/95)** ISDN network capabilities for the support of the teleaction service  
 14pp E 5912 F 5911 S 5913 11 CHF

**I.377 (10/00)** Network requirements to support charging and accounting in B-ISDN  
 16pp E 18903 F 18904 S 18905 12 CHF

**I.378 (12/02)** Traffic control and congestion control at the ATM Adaptation Layer type 2  
 22pp E 23368 F 23369 S 23370 17 CHF

**I.378 (2002) Amendment 1 (08/03)**  
 New Appendix IV: Deriving AAL 2 traffic parameters from AAL 2 link characteristics  
 8pp E 24776 F 24777 S 24778 9 CHF

**I.381 (03/01)** ATM Adaptation Layer (ALL) performance  
32pp E 20625 F 20626 S 20627 17 CHF

### ISDN user-network interfaces

**I.410 (11/88)** General aspects and principles relating to Recommendations on ISDN user-network interfaces  
*Individually through the Electronic Bookshop:* 20 CHF

**I.411 (03/93)** ISDN user-network interfaces – Reference configurations  
7pp E 3880 F 3879 S 3881 11 CHF

**I.412 (11/88)** ISDN user-network interfaces – Interface structures and access capabilities  
*Individually through the Electronic Bookshop:* 20 CHF

**I.413 (03/93)** B-ISDN user-network interface  
9pp E 3908 F 3907 S 3909 11 CHF

**I.414 (09/97)** Overview of Recommendations on Layer 1 for ISDN and B-ISDN customer accesses  
20pp E 12493 F 12494 S 12495 17 CHF

### Application of I-series Recommendations to ISDN user-network interfaces

**I.420 (11/88)** Basic user-network interface  
*Individually through the Electronic Bookshop:* 20 CHF

**I.421 (11/88)** Primary rate user-network interface  
*Individually through the Electronic Bookshop:* 20 CHF

### Layer 1 Recommendations

**I.430 (11/95)** Basic user-network interface – Layer 1 specification  
100pp E 6937 F 6938 S 6939 39 CHF

**I.431 (03/93)** Primary rate user-network interface – Layer 1 specification  
39pp E 3950 F 3949 S 3951 20 CHF

**I.431 (1993) Amendment 1 (06/97)**  
4pp E 11690 F 11691 S 11692 9 CHF

### I.432 B-ISDN User-Network Interface – Physical layer specification

**I.432.1 (02/99)** General characteristics  
20pp E 15573 F 15574 S 15575 17 CHF

**I.432.2 (02/99)** 155 520 kbit/s and 622 080 kbit/s operation  
40pp E 16180 F 16181 S 16182 22 CHF

**I.432.3 (02/99)** 1544 kbit/s and 2048 kbit/s operation  
16pp E 15470 F 15471 S 15472 12 CHF

**I.432.4 (02/99)** 51 840 kbit/s operation  
20pp E 15455 F 15456 S 15457 17 CHF

**I.432.5 (06/97)** 25 600 kbit/s operation  
28pp E 11729 F 11730 S 11731 17 CHF

### Layer 2 Recommendations

**I.440 (03/93)** ISDN user-network interface data link layer – General aspects  
*This Recommendation is published under alias number Q.920*

**I.440 (1993) Amendment 1 (06/00)**  
To be published...

### Digital subscriber Signalling System No. 1

**I.441 (09/97)** ISDN user-network interface – Data link layer specification  
*This Recommendation is published under alias number Q.921.*  
268pp E 13327 F 13328 S 13329 96 CHF

### ISDN user-network interfaces

**I.441 (1997) Amendment 1 (06/00)**  
To be published...

### Layer 3 Recommendations

**I.450 (03/93)** ISDN user-network interface layer 3 – General aspects  
*This Recommendation is published under alias number Q.930.*

**I.451 (05/98)** ISDN user-network interface layer 3 specification for basic call control  
*This Recommendation is published under alias number Q.931.*

**I.452 (05/98)** Digital subscriber signalling system No. 1 – Generic procedures for the control of ISDN supplementary services  
*This Recommendation is published under alias number Q.932.*

### Multiplexing, rate adaption and support of existing interfaces

**I.460 (02/99)** Multiplexing, rate adaption and support of existing interfaces  
8pp E 14757 F 14758 S 14759 9 CHF

**I.461 (03/93)** Support of X.21, X.21 *bis* and X.20 *bis* based Data Terminal Equipments (DTEs) by an Integrated Services Digital Network (ISDN)  
*This Recommendation is published under alias number X.30.*

**I.462 (11/95)** Support of packet mode terminal equipment by an ISDN  
*This Recommendation is published under alias number X.31.*

**I.463 (02/00)** Support by an ISDN of data terminal equipments with V-Series type interfaces

*This Recommendation is published under alias number V.110.*

**I.464 (02/99)** Multiplexing, rate adaption and support of existing interfaces for restricted 64 kbit/s transfer capability

8pp      E 14760    F 14761    S 14762      9 CHF

**I.465 (10/96)** Support by an ISDN of data terminal equipment with V-Series type interfaces with provision for statistical multiplexing

*This Recommendation is published under alias number V.120*

### *Aspects of ISDN affecting terminal requirements*

**I.470 (11/88)** Relationship of terminal functions to ISDN

*Individually through the Electronic Bookshop:*      20 CHF

**I.480 (03/00)** 1+1 protection switching for cell-based physical layer

16pp      E 19692    F 19693    S 19694      12 CHF

### **Internetwork interfaces**

**I.500 (03/93)** General structure of the ISDN interworking Recommendations

4pp      E 3929    F 3928    S 3930      8 CHF

**I.501 (03/93)** Service interworking

8pp      E 3781    F 3780    S 3782      11 CHF

**I.510 (03/93)** Definitions and general principles for ISDN interworking

12pp      E 3911    F 3910    S 3912      11 CHF

**I.511 (11/88)** ISDN-to-ISDN layer 1 internetwork interface

*Individually through the Electronic Bookshop:*      20 CHF

**I.515 (03/93)** Parameter exchange for ISDN interworking

15pp      E 4017    F 4016    S 4018      15 CHF

**I.520 (03/93)** General arrangements for network interworking between ISDNs

12pp      E 3932    F 3931    S 3933      11 CHF

**I.525 (08/96)** Interworking between networks operating at bit rates less than 64 kbit/s with 64 kbit/s-based ISDN and B-ISDN

20pp      E 11033    F 11034    S 11035      17 CHF

**I.530 (03/93)** Network interworking between an ISDN and a public switched telephone network (PSTN)

10pp      E 3938    F 3937    S 3939      11 CHF

**I.540 (10/96)** General arrangements for interworking between Circuit-Switched Public Data Networks (CSPDNs) and Integrated Services Digital Networks (ISDNs) for the provision of data transmission services

*This Recommendation is published under alias number X.321*

**I.550 (10/96)** General arrangements for interworking between Packet-Switched Public Data Networks (PSPDNs) and Integrated Services Digital Networks (ISDNs) for the provision of data transmission services

*This Recommendation is published under alias number X.325*

**I.555 (09/97)** Frame Relaying Bearer Service interworking

40pp      E 12595    F 12596    S 12597      22 CHF

**I.560 (03/93)** Technical requirements to be met in providing the international telex service within an integrated services digital network

*This Recommendation is published under alias number U.202*

**I.570 (03/93)** Public/private ISDN interworking

7pp      E 3763    F 3762    S 3764      11 CHF

**I.571 (08/96)** Connection of VSAT based private networks to the public ISDN

36pp      E 10839    F 10840    S 10841      22 CHF

**I.572 (03/00)** VSAT interconnection with the PSTN

92pp      E 19608    F 19609    S 19610      39 CHF

**I.580 (11/95)** General arrangements for interworking between B-ISDN and 64 kbit/s based ISDN

32pp      E 6811    F 6812    S 6813      17 CHF

**I.581 (09/97)** General arrangements for B-ISDN interworking

16pp      E 12522    F 12523    S 12524      12 CHF

### **Maintenance principles**

**I.601 (11/88)** General maintenance principles of ISDN subscriber access and subscriber installation

*Individually through the Electronic Bookshop:*      20 CHF

**I.610 (02/99)** B-ISDN operation and maintenance principles and functions

84pp      E 16387    F 16388    S 16389      39 CHF



**I.610 (1999) Amendment 1 (03/00)**

4pp E 19512 F 19513 S 19514 9 CHF

**I.610 (1999) Corrigendum 1 (03/00)****I.620 (10/96)** Frame relay operation and maintenance principles and functions

12pp E 10827 F 10828 S 10829 12 CHF

**I.630 (02/99)** ATM protection switching

40pp E 16065 F 16066 S 16067 22 CHF

**I.630 (1999) Amendment 1 (03/00)**

4pp E 19457 F 19458 S 19459 9 CHF

**I.630 (1999) Corrigendum 1 (03/00)****B-ISDN equipment aspects***ATM equipment***I.731 (10/00)** Types and general characteristics of ATM equipment

40pp E 20012 F 20013 S 20014 22 CHF

**I.732 (10/00)** Functional characteristics of ATM equipment

256pp E 20090 F 20091 S 20092 96 CHF

*Transport functions***I.741 (07/99)** Interworking and interconnection between ATM and switched telephone networks for the transmission of speech, voiceband data and audio signals

44pp E 16470 F 16471 S 16472 22 CHF

*Management of ATM equipment***I.751 (03/96)** Asynchronous transfer mode management of the network element view

84pp E 7502 F 7503 S 7504 39 CHF

*Multiplexing aspects***I.761 (03/00)** Inverse multiplexing for ATM (IMA)

8pp E 19489 F 19490 S 19491 9 CHF

**I.762 (03/00)** ATM over fractional physical links

8pp E 19515 F 19516 S 19517 9 CHF

**SERIES J****Cable networks and transmission of television, sound programme and other multimedia signals***General Recommendations***J.1 (09/99) Withdrawn (09/02)**

Terms, definitions and acronyms applicable to the transmission of television and sound-programme signals and of related data signals

*With the development of the ITU-T terms and definitions database available on the ITU-T web site, Recommendation J.1 and Supplement 4 to J series no longer serve a useful purpose*

8pp E 17553 F 17554 S 17555 9 CHF

**J.2 (09/99)** Guidelines on the use of some ITU-T Recommendations in the J series

8pp E 17556 F 17557 S 17558 9 CHF

*General specifications for analogue sound-programme transmission***J.11 (11/88)** Hypothetical reference circuits for sound-programme transmissions*Formerly ITU-R Rec. CMTT 502-2**Individually through the Electronic Bookshop: 20 CHF***J.12 (11/88)** Types of sound-programme circuits established over the international telephone network*Individually through the Electronic Bookshop: 20 CHF***J.13 (11/88)** Definitions for international sound-programme circuits*Individually through the Electronic Bookshop: 20 CHF***J.14 (11/88)** Relative levels and impedances on an international sound-programme connection*Individually through the Electronic Bookshop: 20 CHF***J.15 (11/88)** Lining-up and monitoring an international sound-programme connection*Individually through the Electronic Bookshop: 20 CHF***J.16 (11/88)** Measurement of weighted noise in sound-programme circuits*Individually through the Electronic Bookshop: 20 CHF***J.17 (11/88)** Pre-emphasis used on sound-programme circuits*Individually through the Electronic Bookshop: 20 CHF***J.18 (11/88)** Crosstalk in sound-programme circuits set up on carrier systems*Individually through the Electronic Bookshop: 20 CHF*



**J.19 (11/88)** A conventional test signal simulating sound-programme signals for measuring interference in other channels

*Formerly ITU-R Rec. CMTT 571-2*

*Individually through the Electronic Bookshop:* 20 CHF

### *Performance characteristics of analogue sound-programme circuits*

**J.21 (08/94)** Performance characteristics of 15 kHz-type sound-programme circuits – Circuits for high quality monophonic and stereophonic transmissions

*Formerly ITU-R Rec. CMTT 505-5*

8pp E 5570 F 5569 S 5571 11 CHF

**J.22 (10/84) Withdrawn (03/93)**

Performance characteristics of 10 kHz type sound-programme circuits

*Deleted after its content became technically out of date*

**J.23 (11/88)** Performance characteristics of 7 kHz type (narrow bandwidth) sound-programme circuits

*Formerly ITU-R Rec. CMTT 503-4*

*Individually through the Electronic Bookshop:* 20 CHF

**J.24 (02/82)** Modulation of signals carried by sound-program circuits by interfering signals from power supply sources

*Published as ITU-R Rec. CMTT 474-1 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

E 11208 F 11208 S 11208 9 CHF

**J.25 (05/86)** Estimation of transmission performance of sound-programme circuits shorter or longer than the hypothetical reference circuit

*Published as ITU-R Rec. CMTT 605-1 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

E 11209 F 11209 S 11209 9 CHF

**J.26 (06/90)** Test signals to be used on international sound-programme connections

*Published as ITU-R Rec. CMTT 645-1 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

E 11210 F 11210 S 11210 9 CHF

**J.27 (06/90)** Signals for the alignment of international sound-programme connections

*Published as ITU-R Rec. CMTT 661-1 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

E 11211 F 11211 S 11211 9 CHF

### *Equipment and lines used for analogue sound-programme circuits*

**J.31 (11/88) Withdrawn (03/99)**

Characteristics of equipment and lines used for setting up 15 kHz type sound-programme circuits

*Deleted because no system or equipment have implemented it during the last two study periods*

*Individually through the Electronic Bookshop:* 20 CHF

**J.32 (10/84) Withdrawn (03/93)**

Characteristics of equipment and lines used for setting up 10 kHz type sound-programme circuits

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**J.33 (11/88) Withdrawn (03/99)**

Characteristics of equipment and lines used for setting up 6.4 kHz type sound-programme circuits

*Deleted because no system or equipment have implemented it during the last two study periods*

*Individually through the Electronic Bookshop:* 20 CHF

**J.34 (11/88) Withdrawn (03/99)**

Characteristics of equipment used for setting up 7 kHz type sound-programme circuits

*Deleted because no system or equipment have implemented it during the last two study periods*

*Individually through the Electronic Bookshop:* 20 CHF

### *Digital encoders for analogue sound-programme signals*

**J.41 (11/88)** Characteristics of equipment for the coding of analogue high quality sound programme signals for transmission on 384 kbit/s channels

*Individually through the Electronic Bookshop:* 20 CHF

**J.42 (11/88)** Characteristics of equipment for the coding of analogue medium quality sound-programme signals for transmission on 384-kbit/s channels

*Individually through the Electronic Bookshop:* 20 CHF

**J.43 (11/88) Withdrawn (03/99)**

Characteristics of equipment for the coding of analogue high quality sound programme signals for transmission on 320 kbit/s channels

*Deleted because no system or equipment have implemented it during the last two study periods*

*Individually through the Electronic Bookshop:* 20 CHF

**J.44 (11/88) Withdrawn (03/99)**

Characteristics of equipment for the coding of analogue medium quality sound-programme signals for transmission on 320 kbit/s channels

*Deleted because no system or equipment have implemented it during the last two study periods*

*Individually through the Electronic Bookshop:* 20 CHF

## Digital transmission of sound-programme signals

**J.51 (08/94)** General principles and user requirements for the digital transmission of high quality sound programmes

*Formerly ITU-R Rec. CMTT 659-1*

3pp E 5573 F 5572 S 5574 8 CHF

**J.52 (07/96)** Digital transmission of high-quality sound-programme signals using one, two or three 64 kbit/s channels per mono signal (and up to six per stereo signal)

32pp E 9827 F 9828 S 9829 17 CHF

**J.52 (1996) Amendment 1 (09/99)**

New Appendix II – Extracts from EBU specification of an ISDN Codec capable of delivering high-quality audio

12pp E 17959 F 17960 S 17961 9 CHF

**J.53 (05/00)** Sampling frequency to be used for the digital transmission of high-quality sound-programme signals

8pp E 19776 F 19777 S 19778 9 CHF

**J.54 (05/86)** Transmission of analogue high-quality sound-programme signals on mixed analogue-and-digital circuits using 384 kbit/s channels

*Published as ITU-R Rec. CMTT 660 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

E 11220 F 11220 S 11220 9 CHF

**J.55 (06/90)** Digital transmission of high-quality sound-programme signals on distribution circuits using 480 kbit/s (496 kbit/s) per audio channel

*Published as ITU-R Rec. CMTT 718 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

E 11221 F 11221 S 11221 12 CHF

**J.56 (06/90) Withdrawn (03/99)**

Transmission of high-quality sound-programme analogue signals over mixed analogue/digital circuits at 320 kbit/s

*Was published as ITU-R Rec. CMTT 719 in CCIR Recommendations, Volume XII, Düsseldorf, 1990. Deleted because no system or equipment have implemented it during the last two study periods*

**J.57 (06/90)** Transmission of digital studio quality sound signals over H1 channels

*Published as ITU-R Rec. CMTT 724 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

1pp E 11236 F 11236 S 11236 12 CHF

## Circuits for analogue television transmission

**J.61 (06/90)** Transmission performance of television circuits designed for use in international connections

*Published as ITU-R Rec. CMTT 567-3 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

E 13368 F 13368 S 13368 22 CHF

**J.62 (02/78)** Single value of the signal-to-noise ratio for all television systems

*Published as ITU-R Rec. CMTT 568 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

E 11237 F 11237 S 11237 9 CHF

**J.63 (06/90)** Insertion of test signals in the field-blanking interval of monochrome and colour television signals

*Published as ITU-R Rec. CMTT 473-5 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

E 10596 F 10596 S 10596 12 CHF

**J.64 (02/86)** Definitions of parameters for simplified automatic measurement of television insertion test signals

*Published as ITU-R Rec. CMTT 569-2 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

E 11238 F 11238 S 11238 12 CHF

**J.65 (02/78)** Standard test signal for conventional loading of a television channel

*Published as ITU-R Rec. CMTT 570 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

E 11239 F 11239 S 11239 9 CHF

**J.66 (02/78)** Transmission of one sound programme associated with analogue television signal by means of time division multiplex in the line synchronizing pulse

*Published as ITU-R Rec. CMTT 572 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*

*Individually through the Electronic Bookshop:* 20 CHF

E 11240 F 11240 S 11240 9 CHF

**J.67 (03/01)** Test signals and measurement techniques for transmission circuits carrying MAC/packet signals

30pp E 20609 F 20610 S 20611 17 CHF

**J.68 (02/82)** Hypothetical reference chain for television transmissions over very long distances  
*Published as ITU-R Rec. CMTT 603 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*  
*Individually through the Electronic Bookshop:* 20 CHF  
 E 11241 F 11241 S 11241 9 CHF

*Analogue television transmission over metallic lines and interconnection with radio-relay links*

**J.73 (11/88) Withdrawn (03/99)**  
 Use of a 12-MHz system for the simultaneous transmission of telephony and television  
*Deleted because no system or equipment have implemented it during the last two study periods*  
*Individually through the Electronic Bookshop:* 20 CHF

**J.74 (11/88) Withdrawn (03/99)**  
 Methods for measuring the transmission characteristics of translating equipments  
*Deleted because no system or equipment have implemented it during the last two study periods*  
*Individually through the Electronic Bookshop:* 20 CHF

**J.75 (11/88) Withdrawn (03/99)**  
 Interconnection of systems for television transmission on coaxial pairs and on radio-relay links  
*Deleted because no system or equipment have implemented it during the last two study periods*  
*Individually through the Electronic Bookshop:* 20 CHF

**J.77 (11/88) Withdrawn (03/99)**  
 Characteristics of the television signals transmitted over 18 MHz and 60-MHz systems  
*Deleted because no system or equipment have implemented it during the last two study periods*  
*Individually through the Electronic Bookshop:* 20 CHF

*Digital transmission of television signals*

**J.80 (09/93)** Transmission of component-coded digital television signals for contribution-quality applications at bit rates near 140 Mbit/s  
*Formerly ITU-R Rec. CMTT 721-2*  
 15pp E 5576 F 5575 S 5577 15 CHF

**J.81 (09/93)** Transmission of component-coded digital television signals for contribution-quality applications at the third hierarchical level of ITU-T Recommendation G.702  
*Formerly ITU-R Rec. CMTT.723-1*  
 66pp E 5579 F 5578 S 5580 30 CHF

**J.81 (1993) Amendment 1 (10/95)** Appendix II to Annex A to Recommendation J.81 – Guidelines for implementation of a complete television codec  
 4pp E 6441 F 6442 S 6443 8 CHF

**J.81 (1993) Amendment 2 (03/98)** Appendix IV to Annex A – Results of 34 Mbit/s codec interworking tests (February 1996)  
 8pp E 13519 F 13520 S 13521 9 CHF

**J.81 (1993) Corrigendum 1 (10/96)**

**J.82 (07/96)** Transport of MPEG-2 constant bit rate television signals in B-ISDN  
 8pp E 7403 F 7404 S 7405 9 CHF

**J.83 (04/97)** Digital multi-programme systems for television, sound and data services for cable distribution  
*Covering note, 3.08.1998: Corrigendum*  
 64pp E 11880 F 11881 S 11882 29 CHF

**J.83 (1995) Erratum 1 (09/96)**

**J.83 (1997) Erratum 1 (07/98)**

**J.84 (03/01)** Distribution of digital multi-programme signals for television, sound and data services through SMATV networks  
 34pp E 20593 F 20594 S 20595 17 CHF

**J.85 (06/90)** Digital television transmission over long distances – General principles  
*Published as ITU-R Rec. CMTT 604-2 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*  
*Individually through the Electronic Bookshop:* 20 CHF  
 E 11246 F 11246 S 11246 9 CHF

**J.86 (06/90)** Mixed analogue-and-digital transmission of analogue composite television signals over long distances  
*Published as ITU-R Rec. CMTT 658-1 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*  
*Individually through the Electronic Bookshop:* 20 CHF  
 E 11247 F 11247 S 11247 9 CHF

**J.87 (03/01)** Use of hybrid cable television links for the secondary distribution of television into the user's premises  
 18pp E 20425 F 20426 S 20427 12 CHF

**J.88 (09/99)** Transmission of enhanced definition television signals over digital links  
 56pp E 18058 F 18059 S 18060 29 CHF

**J.89 (09/99)** Transport mechanism for component-coded digital television signals using MPEG-2 4:2:2 P@ML including all service elements for contribution and primary distribution  
 20pp E 17697 F 17698 S 17699 17 CHF

*Ancillary digital services for television transmission*

**J.90 (05/00)** Electronic programme guides for delivery by digital cable television and similar methods  
 12pp E 19695 F 19696 S 19697 12 CHF

**J.91 (08/94)** Technical methods for ensuring privacy in long-distance international television transmission  
17pp E 5582 F 5581 S 5583 15 CHF

**J.92 (04/97)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's  
8pp E 11173 F 11174 S 11175 9 CHF

**J.93 (03/98)** Requirements for conditional access in the secondary distribution of digital television on cable television systems  
12pp E 13494 F 13495 S 13496 12 CHF

**J.94 (11/98)** Service information for digital broadcasting in cable television systems  
84pp E 16336 F 16337 S 16339 96 CHF

**J.94 (1998) Amendment 2 (03/01)** Additions to Annex C – Service information for digital multi-programme System C  
14pp E 20428 F 20429 S 20430 12 CHF

**J.94 (1998) Amendment 1 (10/00)** Service information delivered out of band for digital cable television systems  
128pp E 20330 F 20331 S 20332 49 CHF

**J.95 (09/99)** Copy protection of intellectual property for content delivered on cable television systems  
63pp E 18570 F 18571 S 18572 29 CHF

**J.96 (07/02)** Technical method for ensuring privacy in long-distance international MPEG-2 television transmission conforming to Recommendation J.89  
18pp E 22313 F 22314 S 22315 12 CHF

**J.97 (07/02)** Metadata on cable networks  
9pp E 22665 F 22666 S 22667 9 CHF

**J.98 (05/03)** Metadata requirements for video-on-demand in cable networks  
14pp E 24437 F 24438 S 24439 12 CHF

### *Operational requirements and methods for television transmission*

**J.100 (06/90)** Tolerances for transmission time differences between the vision and sound components of a television signal  
*Published as ITU-R Rec. CMTT 717 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*  
*Individually through the Electronic Bookshop:* 20 CHF  
E 11248 F 11248 S 11248 9 CHF

**J.101 (06/90)** Measurement methods and test procedures for teletext signals  
*Published as ITU-R Rec. CMTT 720 in CCIR Recommendations, Volume XII, Düsseldorf, 1990*  
*Individually through the Electronic Bookshop:* 20 CHF  
E 11249 F 11249 S 11249 9 CHF

### *Interactive systems for digital television distribution*

**J.110 (04/97)** Basic principles for a worldwide common family of systems for the provision of interactive television services  
12pp E 10742 F 10744 S 10743 12 CHF

**J.111 (03/98)** Network independent protocols for interactive systems  
*Guidelines for the implementation of Rec. J.111 may be found in Supplement 3 to J series (1998).*  
16pp E 13568 F 13569 S 13570 12 CHF

**J.112 (03/98)** Transmission systems for interactive cable television services  
*Example of linking options between annexes of Rec. J.112 and annexes of Rec. J.83 may be found in Supplement 1 to J series (1998). Guidelines for the implementation of annex A of Rec. J.112 may be found in Supplement 2 to J series (1998).*  
256pp E 14338 F 14339 S 14340 96 CHF

**J.112 Amd1 (03/01)** New Annexes A and B  
To be published...

**J.112 Annex A (03/01)** Digital video broadcasting: DVB interaction channel for cable TV distribution systems  
192pp E 21982 F 21983 S 21984 73 CHF

**J.112 Annex B (03/04)** Data-over-cable service interface specifications: Radio-frequency interface specification  
To be published...

**J.112 Annex B (2001) Amendment 1 (02/02)** Data-over-cable service interface specifications: Radio-frequency interface specification  
1pp E 22386 F 22387 S 22388 9 CHF

**J.112 Annex C (02/02)** Data-over-cable service interface specifications: Radio-frequency interface specification using QAM technique  
304pp E 23270 F 23271 S 23272 96 CHF

**J.113 (03/98)** Digital video broadcasting interaction channel through the PSTN/ISDN  
8pp E 13497 F 13498 S 13499 9 CHF

**J.114 (09/99)** Interaction channel using digital enhanced cordless telecommunications  
20pp E 18010 F 18011 S 18012 17 CHF

<b>J.115 (09/99)</b>	Interaction channel using the global system for mobile communications			
12pp	E 17708	F 17709	S 17710	12 CHF
<b>J.116 (05/00)</b>	Interaction channel for local multipoint distribution systems			
240pp	E 20333	F 20334	S 20335	96 CHF
<b>J.117 (09/99)</b>	Home digital network interface specification			
100pp	E 17995	F 17996	S 17997	44 CHF
<b>J.118 (05/00)</b>	Access systems for interactive services on SMATV/MATV networks			
36pp	E 19977	F 19978	S 19979	22 CHF
<b>J.120 (05/00)</b>	Recommendation J.120 (05/00) – Distribution of sound and television programs over the IP network			
24pp	E 20002	F 20003	S 20004	67 CHF
<b>J.121 (02/02)</b>	Quality control protocol for webcasting			
28pp	E 22172	F 22173	S 22174	17 CHF
<b>J.122/J.Imp122 (12/02)</b>	Second-generation transmission systems for interactive cable television services – IP cable modems			
506pp	E 23675	F 23676	S 23677	197 CHF
<b>J.123 (07/02)</b>	Multiplexing format for webcasting on TCP/IP network			
21pp	E 22900	F 22901	S 22902	17 CHF
<b>J.124 (03/04)</b>	Multiplexing format for multimedia webcasting over TCP/IP networks			
31pp	E 25594			17 CHF
<i>Transport of MPEG-2 signals on packetised networks</i>				
<b>J.131 (03/98)</b>	Transport of MPEG-2 signals in PDH networks			
28pp	E 13668	F 13669	S 13670	17 CHF
<b>J.132 (03/98)</b>	Transport of MPEG-2 signals in SDH networks			
36pp	E 13763	F 13764	S 13765	22 CHF
<b>J.133 (07/02)</b>	Measurement of MPEG-2 transport streams in networks			
28pp	E 22742	F 22743	S 22744	17 CHF
<i>Measurement of the quality of service</i>				
<b>J.140 (03/98)</b>	Subjective picture quality assessment for digital cable television systems			
12pp	E 13571	F 13572	S 13573	12 CHF

<b>J.141 (09/99)</b>	Performance indicators for data services delivered over digital cable television systems			
8pp	E 17660	F 17661	S 17662	9 CHF
<b>J.142 (05/00)</b>	Methods for the measurement of parameters in the transmission of digital cable television signals			
48pp	E 20034	F 20034	S 20036	22 CHF
<b>J.143 (05/00)</b>	User requirements for objective perceptual video quality measurements in digital cable television			
12pp	E 19724	F 19725	S 19726	12 CHF
<b>J.144 (03/01)</b>	Objective perceptual video quality measurement techniques for digital cable television in the presence of a full reference			
88pp	E 21606	F 21607	S 21608	34 CHF

#### *Measurement of the quality of service*

<b>J.144 (03/04)</b>	Objective perceptual video quality measurement techniques for digital cable television in the presence of a full reference
To be published...	

#### *Measurement of the quality of service*

<b>J.145 (03/01)</b>	Measurement and control of the quality of service for sound transmission over contribution and distribution networks			
12pp	E 20770	F 20771	S 20772	9 CHF

#### *Measurement of the quality of service*

<b>J.146 (07/02)</b>	Loop latency issues in contribution circuits for conversational TV programmes			
14pp	E 22729	F 22730	S 22731	12 CHF
<b>J.147 (07/02)</b>	Objective picture quality measurement method by use of in-service test signals			
18pp	E 22779	F 22780	S 22781	12 CHF
<b>J.148 (05/03)</b>	Requirements for an objective perceptual multimedia quality model			
12pp	E 24231	F 24232	S 24233	9 CHF

<b>J.149 (03/04)</b>	Method for specifying accuracy and cross-calibration of Video Quality Metrics (VQM)
To be published...	



*Digital television distribution through local subscriber networks*

**J.150 (03/98)** Operational functionalities for the delivery of digital multiprogramme television, sound and data services through multichannel, multipoint distribution systems (MMDS)

16pp E 13706 F 13707 S 13708 12 CHF

**J.150 (1998) Amendment 1 (09/99)** Additions to Recommendation J.150 to also encompass local multipoint distribution systems (LMDS)

12pp E 17678 F 17679 S 17680 12 CHF

**J.150 (1998) Amendment 2 (03/01)** Operational functionalities for the delivery of digital multiprogramme television, sound and data services through multichannel, multipoint distribution systems (MMDS)

10pp E 20989 F 20990 S 20991 9 CHF

**J.151 (10/00)** RF remodulator interface for digital television

36pp E 19964 F 19965 S 19966 17 CHF

*IPCablecom*

**J.160 (02/02)** Architectural framework for the delivery of time-critical services over cable television networks using cable modems

52pp E 21842 F 21843 S 21844 22 CHF

*Digital television distribution through local subscriber networks*

**J.161 (03/01)** Audio codec requirements for the provision of bidirectional audio service over cable television networks using cable modems

16pp E 20557 F 20558 S 20559 12 CHF

**J.162 (03/01)** Network call signalling protocol for the delivery of time critical services over cable television networks using cable modems

116pp E 21830 F 21831 S 21832 44 CHF

*IPCablecom*

**J.162 (03/04)** Network call signalling protocol for the delivery of time-critical services over cable television networks using cable modems

To be published...

**J.162 (2001) Amendment 1 (02/02)**

44pp E 22881 F 22882 S 22883 22 CHF

*Digital television distribution through local subscriber networks*

**J.163 (03/01)** Dynamic quality of service for the provision of real time services over cable television networks using cable modems

232pp E 21014 F 21015 S 21016 96 CHF

*IPCablecom*

**J.163 (03/04)** Dynamic quality of service for the provision of real time services over cable television networks using cable modems

To be published...

*Digital television distribution through local subscriber networks*

**J.164 (03/01)** Event message requirements for the support of real-time services over cable television networks using cable modems

63pp E 20740 F 20741 S 20742 29 CHF

*IPCablecom*

**J.165 (05/03)** IPCablecom Internet signalling transport protocol (ISTP)

64pp E 24408 F 24409 S 24410 29 CHF

*Digital television distribution through local subscriber networks*

**J.166 (03/01)** IPCablecom management information base (MIB) framework

20pp E 21244 F 21245 S 21246 12 CHF

**J.167 (03/01)** Media Terminal Adapter (MTA) device provisioning requirements for the delivery of real time services over cable television networks using cable modems

42pp E 21336 F 21337 S 21338 22 CHF

**J.168 (03/01)** IPCablecom media terminal adapter (MTA) MIB requirements

26pp E 21291 F 21292 S 21293 17 CHF

**J.169 (03/01)** IPCablecom network call signalling (NCS) MIB requirements

24pp E 21216 F 21217 S 21218 17 CHF

*IPCablecom*

**J.170 (02/02)** IPCablecom security specification  
To be published...

**J.171 (02/02)** IPCablecom Trunking Gateway Control Protocol (TGCP)

96pp E 22111 F 22112 S 22113 39 CHF

**J.171 (2002) Amendment 1 (05/03)** TGCP Profile 2

24pp E 24473 F 24474 S 24476 17 CHF



**J.172 (02/02)** IPCablecom management event mechanism  
16pp E 22656 F 22657 S 22658 12 CHF

**J.173 (02/02)** IPCablecom embedded MTA primary line support  
29pp E 22652 F 22653 S 22654 17 CHF

**J.174 (02/02)** IPCablecom interdomain quality of service  
29pp E 22685 F 22686 S 22687 17 CHF

**J.175 (07/02)** Audio server protocol  
58pp E 22929 F 22930 S 22931 29 CHF

**J.176 (07/02)** IPCablecom management event mechanism MIB  
22pp E 22754 F 22755 S 22756 17 CHF

**J.177 (05/03)** IPCablecom CMS subscriber provisioning specification  
60pp E 24380 F 24381 S 24382 29 CHF

**J.178 (05/03)** IPCablecom CMS to CMS signalling  
To be published...

### *Digital television distribution through local subscriber networks*

**J.180 (05/00)** User requirements for statistical multiplexing of several programmes on a transmission channel  
8pp E 19860 F 19861 S 19862 9 CHF

**J.181 (03/01)** Digital program insertion cueing message for cable television systems  
27pp E 20918 F 20919 S 20920 17 CHF

### *Miscellaneous*

**J.181 (2001) Amendment 1 (04/03)** New Appendix I: Recommended practices and interpretation guide  
34pp E 24527 F 24528 S 24529 17 CHF

### *Digital television distribution through local subscriber networks*

**J.182 (03/01)** Parameter sets for analogue interface specifications for the interconnection of set-top-boxes and presentation devices in the home  
50pp E 20524 F 20525 S 20526 22 CHF

**J.183 (03/01)** Time division multiplexing of multiple MPEG-2 transport streams over cable television systems  
16pp E 20560 F 20561 S 20562 12 CHF

**J.184 (03/01)** Digital broadband delivery system: Out-of-band transport  
108pp E 21609 F 21610 S 21611 44 CHF

### *Miscellaneous*

**J.185 (02/02)** Transmission equipment for transferring multi-channel television signals over optical access networks by FM conversion  
20pp E 22757 F 22758 S 22759 12 CHF

**J.186 (02/02)** Transmission equipment for multi-channel television signals over optical access networks by sub-carrier multiplexing (SCM)  
23pp E 22680 F 22681 S 22682 17 CHF

### *Miscellaneous*

**J.187 (07/02)** Transport mechanism for component-coded digital high-definition television signals using MPEG-2 video coding including all service elements for contribution and primary distribution  
14pp E 22782 F 22783 S 22784 12 CHF

### **J.187 (2002) Corrigendum 1 (04/03)**

**J.188 (07/02)** A framework for an efficient parallel video transmission system including codecs with functions of failure detection and picture quality evaluation  
18pp E 22849 F 22850 S 22851 12 CHF

**J.189 (07/02)** Seamless splicing for MPEG-2 bit streams  
16pp E 22785 F 22786 S 22787 12 CHF

### **J.189 (2002) Corrigendum 1 (04/03)**

**J.190 (07/02)** Architecture of MediaHomeNet that supports cable based services  
52pp E 22986 F 22987 S 22988 22 CHF

**J.191 (03/04)** IP feature package to enhance cable modems  
To be published...

**J.192 (03/04)** A residential gateway to support the delivery of cable data services  
To be published...

### *Digital television distribution through local subscriber networks*

**J.200 (03/01)** Worldwide common core – Application environment for digital interactive television services  
30pp E 20736 F 20737 S 20738 17 CHF

**J.200 (2001) Corrigendum 1 (05/04)**

To be published...

*Application for Interactive Digital Television*

**J.202 (05/03)** Harmonization of procedural content formats for interactive TV applications  
15pp E 24251 F 24252 S 24253 12 CHF

**J.280 (03/04)** Digital Program Insertion: Splicing application programming interface  
39pp E 25597 22 CHF

**Supplements to the Series J Recommendations**

**Suppl. 1 (11/98)** Example of linking options between annexes of ITU-T Recommendation J.112 and annexes of ITU-T Recommendation J.83  
8pp E 15602 F 15603 S 15604 12 CHF

**Suppl. 2 (11/98)** Guidelines for the implementation of Annex A of Recommendation J.112, 'Transmission systems for interactive cable television services' – Example of Digital Video Broadcasting (DVB) interaction channel for cable television distribution  
28pp E 15645 F 15646 S 15647 17 CHF

**Suppl. 3 (11/98)** Guidelines for the implementation of Recommendation J.111 'Network independent protocols' – Example of Digital Video Broadcasting (DVB) systems for interactive services  
28pp E 15748 F 15749 S 15750 17 CHF

**Suppl. 5 (09/99)** Guidelines on the use of some ITU-T Recommendations in the J series  
20pp E 18387 F 18387 S 18387 17 CHF

<b>SERIES K</b> <b>Protection against interference</b>
---

**K.1 (11/88) Withdrawn (10/96)**  
Connection to earth of an audio-frequency telephone line in cable  
*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:*

**K.2 (11/88) Withdrawn (10/96)**  
Protection of repeater power-feeding systems against interference from neighbouring electricity lines  
*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:*

**K.3 (11/88) Withdrawn (10/96)**  
Interference caused by audio-frequency signals injected into a power distribution network  
*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:*

**K.4 (11/88) Withdrawn (10/96)**  
Disturbance to signalling  
*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:*

**K.5 (11/88)** Joint use of poles for electricity distribution and for telecommunications  
*Individually through the Electronic Bookshop:* 20 CHF

**K.6 (11/88)** Precautions at crossings  
*Individually through the Electronic Bookshop:* 20 CHF

**K.7 (11/88)** Protection against acoustic shock  
*Individually through the Electronic Bookshop:* 20 CHF

**K.8 (11/88)** Separation in the soil between telecommunication cables and earthing system of power facilities  
*Individually through the Electronic Bookshop:* 20 CHF

**K.9 (11/88)** Protection of telecommunication staff and plant against a large earth potential due to a neighbouring electric traction line  
*Individually through the Electronic Bookshop:* 20 CHF

**K.10 (10/96)** Low frequency interference due to unbalance about earth of telecommunication equipment  
16pp E 10694 F 10695 S 10696 12 CHF

**K.11 (10/93)** Principles of protection against overvoltages and overcurrents  
11pp E 4695 F 4694 S 4696 11 CHF

**K.12 (02/00)** Characteristics of gas discharge tubes for the protection of telecommunications installations  
20pp E 18564 F 18565 S 18566 17 CHF

**K.13 (11/88)** Induced voltages in cables with plastic-insulated conductors  
*Individually through the Electronic Bookshop:* 20 CHF

**K.14 (11/88)** Provision of a metallic screen in plastic-sheathed cables  
*Individually through the Electronic Bookshop:* 20 CHF

**K.15 (11/88)      Withdrawn (12/03)**

Protection of remote-feeding systems and line repeaters against lightning and interference from neighbouring electricity lines

*This Recommendation was deleted on 2003-12-12 since its content has been incorporated in revised Recs K.44 and K.45 (07.2003)*

*Individually through the Electronic Bookshop:*      20 CHF

**K.16 (11/88)      Withdrawn (09/01)**

Simplified calculation method for estimating the effect of magnetic induction from power lines on remote-fed repeaters in coaxial pair telecommunication systems

*Rec. K.16 was withdrawn because it deals only with calculation methods contained in the "Directives – Volum II: Calculating induced voltages and currents in practical cases" without giving any limit*

*Individually through the Electronic Bookshop:*      20 CHF

**K.17 (11/88)      Withdrawn (12/03)**

Tests on power-fed repeaters using solid-state devices in order to check the arrangements for protection from external interference

*This Recommendation was deleted on 2003-12-12 since its content has been incorporated in revised Recs K.44 and K.45 (07.2003)*

*Individually through the Electronic Bookshop:*      20 CHF

**K.18 (11/88)**      Calculation of voltage induced into telecommunication lines from radio station broadcasts and methods of reducing interference

*Individually through the Electronic Bookshop:*      20 CHF

**K.19 (11/88)**      Joint use of trenches and tunnels for telecommunication and power cables

*Individually through the Electronic Bookshop:*      20 CHF

**K.20 (07/03)**      Resistibility of telecommunication equipment installed in a telecommunications centre to overvoltages and overcurrents

28pp      E 24586      F 24587      S 24588      17 CHF

**K.20 (2003) Erratum 1 (01/04)**      Correction to table 7/K.20**K.21 (07/03)**      Resistibility of telecommunication equipment installed in customer premises to overvoltages and overcurrents

24pp      E 24589      F 24590      S 24591      17 CHF

**K.21 (2003) Erratum 1 (01/04)**      Correction to table 7/K.21**K.22 (05/95)      Withdrawn (12/03)**

Overvoltage resistibility of equipment connected to an ISDN T/S bus

*This Recommendation was deleted on 2003-12-12 since its requirements have been incorporated in revised Rec K.21 (07.2003)*

8pp      E 6350      F 6351      S 6352      8 CHF

**K.23 (11/88)**      Types of induced noise and description of noise voltage parameters for ISDN basic user networks

*Individually through the Electronic Bookshop:*      20 CHF

**K.24 (11/88)**      Method for measuring radio-frequency induced noise on telecommunications pairs

*Individually through the Electronic Bookshop:*      20 CHF

**K.25 (02/00)**      Protection of optical fibre cables

24pp      E 18294      F 18295      S 18296      17 CHF

**K.26 (11/88)**      Protection of telecommunication lines against harmful effects from electric power and electrified railway lines

*Individually through the Electronic Bookshop:*      20 CHF

**K.27 (05/96)**      Bonding configurations and earthing inside a telecommunication building

24pp      E 7329      F 7330      S 7331      17 CHF

**K.28 (03/93)**      Characteristics of semi-conductor arrester assemblies for the protection of telecommunications installations

11pp      E 4590      F 4589      S 4591      11 CHF

**K.29 (01/92)**      Coordinated protection schemes for telecommunication cables below ground

4pp      E 2606      F 2636      S 2667      8 CHF

**K.30 (03/93)**      Positive temperature coefficient (PTC) thermistors

7pp      E 4653      F 4652      S 4654      11 CHF

**K.31 (03/93)**      Bonding configurations and earthing of telecommunication installations inside a subscriber's building

7pp      E 4698      F 4697      S 4699      11 CHF

**K.32 (05/95)      Withdrawn (06/00)**

Immunity requirements and test methods for electrostatic discharge to telecommunication equipment – Generic EMC Recommendation

*The content of this Recommendation has been superseded by ITU-T K.43 (1998) and K.48 (2000)*

8pp      E 6347      F 6348      S 6349      8 CHF

**K.33 (10/96)** Limits for people safety related to coupling into telecommunications system from a.c. electric power and a.c. electrified railway installations in fault conditions

16pp E 10103 F 10104 S 10105 12 CHF

**K.34 (07/03)** Classification of electromagnetic environmental conditions for telecommunication equipment – Basic EMC Recommendation

23pp E 24668 F 24669 S 24670 17 CHF

**K.35 (05/96)** Bonding configurations and earthing at remote electronic sites

12pp E 7332 F 7333 S 7334 12 CHF

**K.36 (05/96)** Selection of protective devices

12pp E 7365 F 7366 S 7367 12 CHF

**K.37 (02/99)** Low and high frequency EMC mitigation techniques for telecommunication installations and systems – Basic EMC Recommendation

20pp E 15508 F 15509 S 15510 17 CHF

**K.38 (10/96)** Radiated emission test procedure for physically large systems

12pp E 10583 F 10584 S 10585 12 CHF

**K.39 (10/96)** Risk assessment of damages to telecommunication sites due to lightning discharges

16pp E 10697 F 10698 S 10699 12 CHF

**K.40 (10/96)** Protection against LEMP in telecommunications centres

16pp E 10758 F 10759 S 10760 12 CHF

**K.41 (05/98) Withdrawn (12/03)**  
Resistibility of internal interfaces of telecommunication centres to surge overvoltages

*This Recommendation was deleted on 2003-12-12 since its requirements have been added to revised Rec K.20 (07.2003)*

12pp E 13574 F 13575 S 13576 12 CHF

**K.42 (05/98)** Preparation of emission and immunity requirements for telecommunication equipment – General principles

12pp E 13577 F 13578 S 13579 12 CHF

**K.43 (07/03)** Immunity requirements for telecommunication equipment

23pp E 24518 F 24519 S 24520 17 CHF

**K.44 (07/03)** Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents – Basic Recommendation

79pp E 24795 F 24796 S 24797 34 CHF

**K.45 (07/03)** Resistibility of telecommunication equipment installed in the access and trunk networks to overvoltages and overcurrents

23pp E 24592 F 24593 S 24594 17 CHF

**K.46 (07/03)** Protection of telecommunication lines using metallic symmetric conductors against lightning induced surges

22pp E 24671 F 24672 S 24673 17 CHF

**K.47 (12/00)** Protection of telecommunication lines using metallic conductors against direct lightning discharges

16pp E 21498 F 21499 S 21500 12 CHF

**K.48 (07/03)** EMC requirements for each telecommunication equipment – Product family Recommendation

48pp E 24662 F 24663 S 24664 22 CHF

**K.49 (02/00)** Test condition and performance criteria for voice terminal subject to disturbance from digital mobile phone

16pp E 18306 F 18307 S 18308 12 CHF

**K.50 (02/00)** Safe limits of operating voltages and currents for telecommunication systems powered over the network

16pp E 18297 F 18298 S 18299 12 CHF

**K.51 (02/00)** Safety criteria for telecommunication equipment

8pp E 18300 F 18301 S 18302 9 CHF

**K.52 (02/00)** Guidance on complying with limits for human exposure to electromagnetic fields

44pp E 18690 F 18691 S 18692 22 CHF

**K.53 (02/00)** Values of induced voltages on telecommunication installations to establish telecom and a.c. power and railway operators responsibilities

8pp E 18451 F 18452 S 18453 9 CHF

**K.54 (10/00)** Conducted immunity test method and level at fundamental power frequencies

9pp E 19810 F 19811 S 19812 9 CHF

**K.54 Erratum (08/02)**

**K.55 (08/02)** Overvoltage and overcurrent requirements for insulation displacement connectors (IDC) terminations

20pp E 22745 F 22746 S 22747 12 CHF

**K.56 (07/03)** Protection of radio base stations against lightning discharges

32pp E 24782 F 24783 S 24784 17 CHF

**K.57 (09/03)** Protection measures for radio base stations sited on power line towers

64pp E 24804 F 24805 S 24806 29 CHF

**K.58 (07/03)** EMC, resistibility and safety requirements and procedures for co-located telecommunication installations

17pp E 24530 F 24531 S 24532 12 CHF

**K.59 (07/03)** EMC, resistibility and safety requirements and procedure for connection to unbundled cables

15pp E 24731 F 24732 S 24733 12 CHF

**K.60 (07/03)** Emission limits and test methods for telecommunication networks

18pp E 24521 F 24522 S 24523 12 CHF

**K.61 (09/03)** Guidance to measurement and numerical prediction of electromagnetic fields for compliance with human exposure limits for telecommunication installations

24pp E 24691 F 24692 S 24693 17 CHF

**K.62 (02/04)** System level radiated emissions compliance using mathematical modelling

26pp E 25554 17 CHF

**K.63 (02/04)** Maintaining the suitability of production telecommunications equipment to its intended electromagnetic environment

To be published...

**K.64 (02/04)** Safe working practices for outside equipment installed in particular environments

25pp E 25653 17 CHF

**SERIES L**

**Construction, installation and protection of cables and other elements of outside plant**

**L.1 (11/88)** Construction, installation and protection of telecommunication cables in public networks

*Individually through the Electronic Bookshop:* 20 CHF

**L.2 (11/88)** Impregnation of wooden poles

*Individually through the Electronic Bookshop:* 20 CHF

**L.3 (11/88)** Armouring of cables

*Individually through the Electronic Bookshop:* 20 CHF

**L.4 (11/88)** Aluminium cable sheaths

*Individually through the Electronic Bookshop:* 20 CHF

**L.5 (11/88)** Cable sheaths made of metals other than lead or aluminium

*Individually through the Electronic Bookshop:* 20 CHF

**L.6 (11/88)** Methods of keeping cables under gas pressure

*The electronic copy of this Recommendation is freely available on ITU website*

*Individually through the Electronic Bookshop:* 20 CHF

**L.7 (11/88)** Application of joint cathodic protection

*Individually through the Electronic Bookshop:* 20 CHF

**L.8 (11/88)** Corrosion caused by alternating current

*Individually through the Electronic Bookshop:* 20 CHF

**L.9 (11/88)** Methods of terminating metallic cable conductors

*Individually through the Electronic Bookshop:* 20 CHF

**L.10 (12/02)** Optical fibre cables for duct and tunnel application

20pp E 23335 F 23336 S 23337 12 CHF

**L.11 (11/88)** Joint use of tunnels by pipelines and telecommunication cables, and the standardization of underground duct plans

*Individually through the Electronic Bookshop:* 20 CHF

<b>L.12 (05/00)</b>	Optical fibre joints	28pp	E 19816	F 19817	S 19818	17 CHF
<b>L.13 (04/03)</b>	Performance requirements for passive optical nodes: Sealed closures for outdoor environments	26pp	E 24358	F 24259	S 24360	17 CHF
<b>L.14 (07/92)</b>	Measurement method to determine the tensile performance of optical fibre cables under load	5pp	E 2835	F 2800	S 2833	8 CHF
<b>L.15 (03/93)</b>	Optical local distribution networks – Factors to be considered for their construction	8pp	E 5011	F 5010	S 5012	8 CHF
<b>L.16 (03/93)</b>	Conductive plastic material (CPM) as protective covering for metal cable sheaths	2pp	E 4281	F 4280	S 4282	8 CHF
<b>L.17 (06/95)</b>	Implementation of connecting customers into the public switched telephone network (PSTN) via optical fibres	4pp	E 6172	F 6171	S 6173	8 CHF
<b>L.17 Appendix I (02/97)</b>	Examples of possible applications	8pp	E 12553	F 12554	S 12555	9 CHF
<b>L.18 (10/96)</b>	Sheath closures for terrestrial copper telecommunication cables	8pp	E 10642	F 10643	S 10644	9 CHF
<b>L.19 (11/03)</b>	Multi-pair copper network cable supporting shared multiple services such as POTS, ISDN and xDSL	28pp	E 25177	F 25178	S 25179	17 CHF
<b>L.20 (10/96)</b>	Creation of a fire security code for telecommunication facilities	4pp	E 10645	F 10646	S 10647	9 CHF
<b>L.21 (10/96)</b>	Fire detection and alarm systems, detector and sounder devices	12pp	E 10648	F 10649	S 10650	12 CHF
<b>L.22 (10/96)</b>	Fire protection	12pp	E 10685	F 10686	S 10687	12 CHF
<b>L.23 (10/96)</b>	Fire extinction – Classification and location of fire extinguishing installations and equipment on premises	12pp	E 10675	F 10676	S 10677	12 CHF
<b>L.24 (10/96)</b>	Classification of outside plant waste	24pp	E 10804	F 10805	S 10806	17 CHF
<b>L.25 (10/96)</b>	Optical fibre cable network maintenance	12pp	E 10830	F 10831	S 10832	12 CHF

<b>L.26 (12/02)</b>	Optical fibre cables for aerial application	20pp	E 23332	F 23333	S 23334	12 CHF
<b>L.27 (10/96)</b>	Method for estimating the concentration of hydrogen in optical fibre cables	16pp	E 10885	F 10886	S 10887	12 CHF
<b>L.28 (10/02)</b>	External additional protection for marinized terrestrial cables	14pp	E 23098	F 23099	S 23100	12 CHF
<b>L.29 (01/02)</b>	As-laid report and maintenance/repair log for marinized terrestrial cable installation	12pp	E 22004	F 22005	S 22006	9 CHF
<b>L.30 (10/96)</b>	Markers on marinized terrestrial cables	12pp	E 10854	F 10855	S 10856	9 CHF
<b>L.31 (10/96)</b>	Optical fibre attenuators	8pp	E 10857	F 10858	S 10859	9 CHF
<b>L.32 (10/98)</b>	Protection devices for through-cable penetrations of fire-sector partitions	12pp	E 14412	F 14413	S 14414	12 CHF
<b>L.33 (10/98)</b>	Periodic control of fire extinction devices in telecommunication buildings	8pp	E 14409	F 14410	S 14411	9 CHF
<b>L.34 (10/98)</b>	Installation of Optical Fibre Ground Wire (OPGW) cable	8pp	E 14211	F 14212	S 14213	9 CHF
<b>L.35 (10/98)</b>	Installation of optical fibre cables in the access network	8pp	E 14270	F 14271	S 14272	9 CHF
<b>L.36 (10/98)</b>	Single mode fibre optic connectors	12pp	E 14283	F 14284	S 14285	12 CHF
<b>L.37 (10/98)</b>	Fibre optic (non-wavelength selective) branching devices	12pp	E 14286	F 14287	S 14288	12 CHF
<b>L.38 (09/99)</b>	Use of trenchless techniques for the construction of underground infrastructures for telecommunication cable installation	40pp	E 16636	F 16637	S 16638	22 CHF
<b>L.39 (05/00)</b>	Investigation of the soil before using trenchless techniques	20pp	E 19624	F 19625	S 19626	17 CHF
<b>L.40 (10/00)</b>	Optical fibre outside plant maintenance support, monitoring and testing system	44pp	E 20339	F 20340	S 20341	22 CHF



<b>L.41 (05/00)</b>	Maintenance wavelength on fibres carrying signals	12pp	E 19433	F 19434	S 19435	12 CHF
<b>L.42 (05/03)</b>	Extending optical fibre solutions into the access network	30pp	E 24991	F 24992	S 24993	17 CHF
<b>L.43 (12/02)</b>	Optical fibre cables for buried application	26pp	E 23422	F 23423	S 23424	17 CHF
<b>L.44 (10/00)</b>	Electric power supply for equipment installed as outside plant	40pp	E 19961	F 19962	S 19963	22 CHF
<b>L.45 (10/00)</b>	Minimizing the effect on the environment from the outside plant in telecommunication networks	15pp	E 19912	F 19913	S 19914	12 CHF
<b>L.46 (10/00)</b>	Protection of telecommunication cables and plant from biological attack	26pp	E 19863	F 19864	S 19865	17 CHF
<b>L.47 (10/00)</b>	Access facilities using hybrid fibre/copper networks	44pp	E 20006	F 20007	S 20008	17 CHF
<b>L.48 (03/03)</b>	Mini-trench installation technique	14pp	E 24146	F 24147	S 24148	12 CHF
<b>L.49 (03/03)</b>	Micro-trench installation technique	14pp	E 24451	F 24452	S 24453	9 CHF
<b>L.50 (11/03)</b>	Requirements for passive optical nodes: Optical distribution frames for central office environments	16pp	E 25057	F 25058	S 25059	12 CHF
<b>L.51 (04/03)</b>	Passive node elements for fibre optic networks – General principles and definitions for characterization and performance evaluation	28pp	E 24533	F 24534	S 24535	17 CHF
<b>L.52 (05/03)</b>	Deployment of Passive Optical Networks (PON)	19pp	E 25060	F 25061	S 25062	12 CHF
<b>L.53 (05/03)</b>	Optical fibre maintenance criteria for access networks	27pp	E 24361	F 24362	S 24363	17 CHF
<b>L.54 (02/04)</b>	Splice closures for maritized terrestrial cables (MTC)	17pp	E 25222			12 CHF
<b>L.55 (11/03)</b>	Digital database for marine cables and pipelines	24pp	E 25483			17 CHF

<b>L.56 (05/03)</b>	Installation of optical fibre cable along railways	13pp	E 24326	F 24327	S 24328	12 CHF
---------------------	--	------	---------	---------	---------	--------

<b>L.57 (05/03)</b>	Air-assisted installation of optical fibre cables	12pp	E 24260	F 24261	S 24262	9 CHF
---------------------	---	------	---------	---------	---------	-------

## SERIES M

### **TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits**

#### *Introduction and general principles of maintenance and maintenance organization*

<b>M.10 (10/92)</b>	Scope and application of Recommendations for maintenance of telecommunication networks and services	10pp	E 3519	F 3518	S 3520	11 CHF
---------------------	---	------	--------	--------	--------	--------

<b>M.15 (11/88)</b>	Maintenance considerations for new systems					
	<i>Individually through the Electronic Bookshop:</i>					20 CHF

<b>M.20 (10/92)</b>	Maintenance philosophy for telecommunication networks	21pp	E 3375	F 3374	S 3376	15 CHF
---------------------	---	------	--------	--------	--------	--------

<b>M.21 (10/92)</b>	Maintenance philosophy for telecommunication services	5pp	E 3378	F 3377	S 3379	8 CHF
---------------------	---	-----	--------	--------	--------	-------

<b>M.32 (11/88)</b>	Principles for using alarm information for maintenance of international transmission systems and equipment					
	<i>Individually through the Electronic Bookshop:</i>					20 CHF

<b>M.34 (11/88)</b>	Performance monitoring on international transmission systems and equipment					
	<i>Individually through the Electronic Bookshop:</i>					20 CHF

<b>M.35 (11/88)</b>	Principles concerning line-up and maintenance limits					
	<i>Individually through the Electronic Bookshop:</i>					20 CHF

**M.50 (11/88)** Use of telecommunication terms for maintenance

*For their dealings with their colleagues in other countries, personnel at operation centres and other maintenance units should refer to Fascicle I.3, 'Terms and Definitions', of Volume I of the Blue Book. For maintenance technology, the definitions given in Recommendation M.60 are preferred.*

*Individually through the Electronic Bookshop:*

**M.60 (03/93)** Maintenance terminology and definitions  
64pp      E 4395      F 4394      S 4396      24 CHF

**M.70 (11/88)** Guiding principles on the general maintenance organization for telephone-type international circuits  
*Individually through the Electronic Bookshop:*      20 CHF

**M.75 (10/92)** Technical service  
2pp      E 3332      F 3331      S 3333      8 CHF

**M.80 (11/88)** Control stations  
*Individually through the Electronic Bookshop:*      20 CHF

**M.85 (10/92)** Fault report points  
2pp      E 3423      F 3422      S 3424      8 CHF

**M.90 (11/88)** Sub-control stations  
*Individually through the Electronic Bookshop:*      20 CHF

**M.100 (11/88)** Service circuits  
*Individually through the Electronic Bookshop:*      20 CHF

**M.110 (11/88)** Circuit testing  
*Individually through the Electronic Bookshop:*      20 CHF

**M.120 (11/88)** Access points for maintenance  
*Individually through the Electronic Bookshop:*      20 CHF

**M.125 (11/88)** Digital loopback mechanisms  
*Individually through the Electronic Bookshop:*      20 CHF

**M.160 (11/88)** Stability of transmission  
*Individually through the Electronic Bookshop:*      20 CHF

### *International transmission systems*

**M.320 (11/88)** Numbering of the channels in a group  
*Individually through the Electronic Bookshop:*      20 CHF

**M.330 (11/88)** Numbering of groups within a supergroup  
*Individually through the Electronic Bookshop:*      20 CHF

**M.340 (11/88)** Numbering of supergroups within a mastergroup  
*Individually through the Electronic Bookshop:*      20 CHF

**M.350 (11/88)** Numbering of mastergroups within a supermastergroup

*Individually through the Electronic Bookshop:*      20 CHF

**M.380 (11/88)** Numbering in coaxial systems  
*Individually through the Electronic Bookshop:*      20 CHF

**M.390 (11/88)** Numbering in systems on symmetric pair cable  
*Individually through the Electronic Bookshop:*      20 CHF

**M.400 (11/88)** Numbering in radio-relay links or open-wire line systems  
*Individually through the Electronic Bookshop:*      20 CHF

**M.410 (11/88)** Numbering of digital blocks in transmission systems  
*Individually through the Electronic Bookshop:*      20 CHF

**M.450 (11/88)** Bringing a new international transmission system into service  
*Individually through the Electronic Bookshop:*      20 CHF

**M.460 (11/88)** Bringing international group, supergroup, etc., links into service  
*Individually through the Electronic Bookshop:*      20 CHF

**M.470 (11/88)** Setting up and lining up analogue channels for international telecommunication services  
*Individually through the Electronic Bookshop:*      20 CHF

**M.475 (11/88)** Setting up and lining up mixed analogue/digital channels for international telecommunication services  
*Individually through the Electronic Bookshop:*      20 CHF

**M.495 (11/88)** Transmission restoration and transmission route diversity: Terminology and general principles  
*Individually through the Electronic Bookshop:*      20 CHF

**M.496 (11/88)** Functional organization for automatic transmission restoration  
*Individually through the Electronic Bookshop:*      20 CHF

**M.500 (11/88)** Routine maintenance measurements to be made on regulated line sections  
*Individually through the Electronic Bookshop:*      20 CHF

**M.510 (11/88)** Readjustment to the nominal value of a regulated line section (on a symmetric pair line, a coaxial line or a radio-relay link)  
*Individually through the Electronic Bookshop:*      20 CHF

**M.520 (11/88)** Routine maintenance on international group, supergroup, etc., links  
*Individually through the Electronic Bookshop:*      20 CHF

- M.525 (11/88)** Automatic maintenance procedures for international group, supergroup, etc., links  
*Individually through the Electronic Bookshop:* 20 CHF
- M.530 (11/88)** Readjustment to the nominal value of an international group, supergroup, etc., link  
*Individually through the Electronic Bookshop:* 20 CHF
- M.535 (11/88)** Special maintenance procedures for multiple destination, unidirectional (MU) group and supergroup links  
*Individually through the Electronic Bookshop:* 20 CHF
- M.540 (11/88)** Routine maintenance of carrier and pilot generating equipment  
*Individually through the Electronic Bookshop:* 20 CHF
- M.556 (11/88)** Setting up and initial testing of digital channels on an international digital path or block  
*Individually through the Electronic Bookshop:* 20 CHF

### *International telephone circuits*

- M.560 (11/88)** International telephone circuits – Principles, definitions and relative transmission levels  
*Individually through the Electronic Bookshop:* 20 CHF
- M.562 (11/88)** Types of circuit and circuit section  
*Individually through the Electronic Bookshop:* 20 CHF
- M.565 (11/88)** Access points for international telephone circuits  
*Individually through the Electronic Bookshop:* 20 CHF
- M.570 (11/88)** Constitution of the circuit; preliminary exchange of information  
*Individually through the Electronic Bookshop:* 20 CHF
- M.580 (11/88)** Setting up and lining up an international circuit for public telephony  
*Individually through the Electronic Bookshop:* 20 CHF
- M.585 (11/88)** Bringing an international digital circuit into service  
*Individually through the Electronic Bookshop:* 20 CHF
- M.590 (11/88)** Setting up and lining up a circuit fitted with a compandor  
*Individually through the Electronic Bookshop:* 20 CHF
- M.600 (11/88)** Organization of routine maintenance measurements on circuits  
*Individually through the Electronic Bookshop:* 20 CHF

- M.605 (11/88)** Routine maintenance schedule for international public telephony circuits  
*Individually through the Electronic Bookshop:* 20 CHF
- M.610 (11/88)** Periodicity of maintenance measurements on circuits  
*Individually through the Electronic Bookshop:* 20 CHF
- M.620 (11/88)** Methods for carrying out routine measurements on circuits  
*Individually through the Electronic Bookshop:* 20 CHF
- M.630 (11/88)** Maintenance of circuits using control chart methods  
*Individually through the Electronic Bookshop:* 20 CHF
- M.650 (11/88)** Routine line measurements to be made on the line repeaters of audio-frequency sections or circuits  
*Individually through the Electronic Bookshop:* 20 CHF
- M.660 (11/88)** Periodical in-station tests of echo suppressors complying with Recommendations G.161 and G.164  
*Individually through the Electronic Bookshop:* 20 CHF
- M.665 (11/88)** Testing of echo cancellers  
*Individually through the Electronic Bookshop:* 20 CHF
- M.670 (11/88)** Maintenance of a circuit fitted with a compandor  
*Individually through the Electronic Bookshop:* 20 CHF
- M.675 (11/88)** Lining up and maintaining international demand assignment circuits (SPADE)  
*Individually through the Electronic Bookshop:* 20 CHF
- M.710 (11/88)** Performance monitoring on international transmission systems and equipment  
*Individually through the Electronic Bookshop:* 20 CHF
- M.715 (11/88)** Fault report point (circuit)  
*Individually through the Electronic Bookshop:* 20 CHF
- M.716 (11/88)** Fault report point (network)  
*Individually through the Electronic Bookshop:* 20 CHF
- M.717 (11/88)** Testing point (transmission)  
*Individually through the Electronic Bookshop:* 20 CHF
- M.718 (11/88)** Testing point (line signalling)  
*Individually through the Electronic Bookshop:* 20 CHF
- M.719 (11/88)** Testing point (switching and interregister signalling)  
*Individually through the Electronic Bookshop:* 20 CHF

- M.720 (11/88)** Network analysis point  
*Individually through the Electronic Bookshop:* 20 CHF
- M.721 (11/88)** System availability information point  
*Individually through the Electronic Bookshop:* 20 CHF
- M.722 (11/80)** Network management point  
Electronic Bookshop only  
20 CHF
- M.723 (11/88)** Circuit control station  
*Individually through the Electronic Bookshop:* 20 CHF
- M.724 (11/88)** Circuit sub-control station  
*Individually through the Electronic Bookshop:* 20 CHF
- M.725 (11/88)** Restoration control point  
*Individually through the Electronic Bookshop:* 20 CHF
- M.726 (11/88)** Maintenance organization for the wholly digital international automatic and semi-automatic telephone service  
*Individually through the Electronic Bookshop:* 20 CHF
- M.729 (11/88)** Organization of the maintenance of international public switched telephone circuits used for data transmission  
*This Recommendation is also included but not published in V series under alias number V.51*  
*Individually through the Electronic Bookshop:* 20 CHF
- M.730 (11/88)** Maintenance methods  
*Individually through the Electronic Bookshop:* 20 CHF
- M.731 (11/88)** Subjective testing  
*Individually through the Electronic Bookshop:* 20 CHF
- M.732 (11/88)** Signalling and switching routine maintenance tests and measurements  
*Individually through the Electronic Bookshop:* 20 CHF
- M.733 (11/88)** Transmission routine maintenance measurements on automatic and semi-automatic telephone circuits  
*Individually through the Electronic Bookshop:* 20 CHF
- M.734 (11/88)** Exchange of information on incoming test facilities at international switching centres  
*Individually through the Electronic Bookshop:* 20 CHF

### *Common channel signalling systems*

- M.760 (11/88)** Transfer link for common channel Signalling System No. 6  
*Individually through the Electronic Bookshop:* 20 CHF
- M.762 (11/88)** Maintenance of common channel Signalling System No. 6  
*Individually through the Electronic Bookshop:* 20 CHF

### *International telegraph systems and phototelegraph transmission*

- M.800 (11/88)** Use of circuits for voice-frequency telegraphy  
*Individually through the Electronic Bookshop:* 20 CHF
- M.810 (11/88)** Setting up and lining up an international voice-frequency telegraph link for public telegraph circuits (for 50, 100 and 200 baud modulation rates)  
*Individually through the Electronic Bookshop:* 20 CHF
- M.820 (11/88)** Periodicity of routine tests on international voice-frequency telegraph links  
*Individually through the Electronic Bookshop:* 20 CHF
- M.830 (11/88)** Routine measurements to be made on international voice-frequency telegraph links  
*Individually through the Electronic Bookshop:* 20 CHF
- M.850 (11/88)** International time division multiplex (TDM) telegraph systems  
*Individually through the Electronic Bookshop:* 20 CHF
- M.880 (11/88)** International phototelegraph transmission  
*Individually through the Electronic Bookshop:* 20 CHF

### *International leased group and supergroup links*

- M.900 (11/88)** Use of leased group and supergroup links for wide-spectrum signal transmission (data, facsimile, etc.)  
*Individually through the Electronic Bookshop:* 20 CHF
- M.910 (11/88)** Setting up and lining up an international leased group link for wide-spectrum signal transmission  
*Individually through the Electronic Bookshop:* 20 CHF

### *International leased circuits*

- M.1010 (11/88)** Constitution and nomenclature of international leased circuits  
*Individually through the Electronic Bookshop:* 20 CHF
- M.1012 (11/88)** Circuit control station for leased and special circuits  
*Individually through the Electronic Bookshop:* 20 CHF
- M.1013 (11/88)** Sub-control station for leased and special circuits  
*Individually through the Electronic Bookshop:* 20 CHF

**M.1014 (11/88)** Transmission maintenance point (international line) (TMP-IL)

*Individually through the Electronic Bookshop:* 20 CHF

**M.1015 (11/88)** Types of transmission on leased circuits

*Individually through the Electronic Bookshop:* 20 CHF

**M.1016 (11/88)** Assessment of the service availability performance of international leased circuits

*Individually through the Electronic Bookshop:* 20 CHF

**M.1020 (03/93)** Characteristics of special quality international leased circuits with special bandwidth conditioning

6pp E 5173 F 5228 S 5263 8 CHF

**M.1025 (03/93)** Characteristics of special quality international leased circuits with basic bandwidth conditioning

6pp E 5375 F 5374 S 5376 8 CHF

**M.1030 (11/88)** Characteristics of ordinary quality international leased circuits forming part of private switched telephone networks

*Individually through the Electronic Bookshop:* 20 CHF

**M.1040 (11/88)** Characteristics of ordinary quality international leased circuits

*Individually through the Electronic Bookshop:* 20 CHF

**M.1045 (05/96)** Preliminary exchange of information for the provision of international leased circuits and international data transmission systems

8pp E 7247 F 7248 S 7249 9 CHF

**M.1050 (06/98)** Lining up an international point-to-point leased circuit with analogue presentation to the user

16pp E 13942 F 13943 S 13944 12 CHF

**M.1055 (11/88)** Lining up an international multiterminal leased circuit

*Individually through the Electronic Bookshop:* 20 CHF

**M.1060 (11/88)** Maintenance of international leased circuits

*Individually through the Electronic Bookshop:* 20 CHF

### *Mobile telecommunication systems and services*

**M.1130 (10/92)** General definitions and general principles of operation/maintenance procedures to be used in satellite mobile systems

2pp E 3292 F 3291 S 3293 8 CHF

**M.1140 (10/92)** Maritime mobile telecommunication services via satellite

*Replaces M.1100, M.1110, M.1120*

12pp E 3426 F 3425 S 3427 11 CHF

**M.1150 (04/97)** Maintenance aspects of maritime/land mobile telecommunication store-and-forward services (packet mode) via satellite

12pp E 11805 F 11806 S 11807 12 CHF

**M.1160 (04/97)** Maintenance aspects of aeronautical mobile telecommunication service via satellite

12pp E 11808 F 11809 S 11810 12 CHF

**M.1170 (04/97)** Maintenance aspects of mobile digital telecommunication service via satellite

12pp E 11732 F 11733 S 11734 12 CHF

### *International public telephone network*

**M.1230 (05/96)** Method to improve the management of operations and maintenance processes in the International Telephone Network

16pp E 7430 F 7431 S 7432 12 CHF

**M.1235 (11/88)** Use of automatically generated test calls for assessment of network performance

*Individually through the Electronic Bookshop:* 20 CHF

### *International data transmission systems*

**M.1300 (10/97)** Maintenance of international data transmission systems operating in the range 2.4 kbit/s to 140 Mbit/s

16pp E 12397 F 12398 S 12399 12 CHF

**M.1301 (01/01)** General description and operational procedures for international SDH leased circuits

32pp E 20437 F 20438 S 20439 17 CHF

**M.1320 (11/88)** Numbering of channels in data transmission systems

*Individually through the Electronic Bookshop:* 20 CHF

**M.1340 (02/00)** Performance objectives, allocations and limits for international PDH leased circuits and supporting data transmission links and systems

28pp E 18184 F 18186 S 18187 17 CHF

**M.1340 (2000) Corrigendum 1 (08/01)**



**M.1350 (11/88)** Setting up, lining up and characteristics of international data transmission systems operating in the range 2.4 kbit/s to 14.4 kbit/s  
*Individually through the Electronic Bookshop:* 20 CHF

**M.1355 (11/88)** Maintenance of international data transmission systems operating in the range 2.4 to 14.4 kbit/s  
*Individually through the Electronic Bookshop:* 20 CHF

**M.1370 (06/98)** Bringing-into-service of international data transmission systems  
 12pp E 13598 F 13599 S 13600 12 CHF

**M.1375 (06/98)** Maintenance of international data transmission systems  
 16pp E 13709 F 13710 S 13711 12 CHF

**M.1380 (02/00)** Bringing-into-service of international leased circuits that are supported by international data transmission systems  
 12pp E 18940 F 18941 S 18942 12 CHF

**M.1385 (02/00)** Maintenance of international leased circuits that are supported by international data transmission systems  
 12pp E 19123 F 19124 S 19125 12 CHF

### *Designations and information exchange*

**M.1400 (10/01)** Designations for interconnections among operators' networks  
 136pp E 21764 F 21765 S 21766 55 CHF

**M.1400 (01/04)** Designations for interconnections among operators' networks  
 134pp E 25252 55 CHF

**M.1400 (2001) Amendment 1 (05/02)** Amendment to the Introduction of Revised Recommendation M.1400  
 10pp E 22261 F 22262 S 22263 9 CHF

**M.1510 (10/92)** Exchange of contact point information for the maintenance of international services and the international network  
 10pp E 3480 F 3479 S 3481 11 CHF

**M.1520 (10/92)** Standardized information exchange between Administrations  
 9pp E 3510 F 3509 S 3511 11 CHF

**M.1530 (03/99)** Network maintenance information  
 12pp E 15781 F 15782 S 15783 12 CHF

**M.1532 (02/00)** Network maintenance service performance agreement (MSPA)  
 24pp E 19379 F 19380 S 19381 17 CHF

**M.1535 (05/96)** Principles for maintenance information to be exchanged at customer contact point (MICC)  
 12pp E 7369 F 7370 S 7371 12 CHF

**M.1537 (10/97)** Definition of maintenance information to be exchanged at customer contact point (MICC)  
 20pp E 12382 F 12383 S 12384 17 CHF

**M.1539 (03/99)** Management of the grade of network maintenance services at the maintenance service customer contact point (MSCC)  
 44pp E 15955 F 15956 S 15957 22 CHF

**M.1540 (10/94)** Exchange of information for planned outages of transmission systems  
 4pp E 5915 F 5914 S 5916 8 CHF

**M.1550 (10/92)** Escalation procedure  
 3pp E 3395 F 3394 S 3396 8 CHF

**M.1560 (10/92)** Escalation procedure for international leased circuits  
 11pp E 3489 F 3488 S 3490 11 CHF

### *International transport network*

**M.2100 (04/03)** Performance limits for bringing-into-service and maintenance of international multi-operator PDH paths and connections  
 50pp E 24367 F 24368 S 24369 22 CHF

**M.2101 (06/03)** Performance limits for bringing-into-service and maintenance of international multi-operator SDH paths and multiplex sections  
 53pp E 24617 F 24618 S 24619 29 CHF

**M.2102 (02/00)** Maintenance thresholds and procedures for recovery mechanisms (protection and restoration) of international SDH VC trails (paths) and multiplex sections  
 24pp E 19602 F 19603 S 19604 17 CHF

**M.2110 (07/02)** Bringing-into-service international multi-operator paths, sections and transmission systems  
 16pp E 22897 F 22898 S 22899 12 CHF



**M.2120 (07/02)** International multi-operator paths, sections and transmission systems fault detection and localization procedures

18pp E 22732 F 22733 S 22734 12 CHF

**M.2130 (02/00)** Operational procedures for the maintenance of the transport network

20pp E 19570 F 19571 S 19572 17 CHF

**M.2140 (02/00)** Transport network event correlation

32pp E 19727 F 19728 S 19729 17 CHF

**M.2201 (03/01)** Performance objectives, allocations and limits for international ATM permanent and semi-permanent virtual path and virtual path connection

30pp E 20764 F 20765 S 20766 17 CHF

**M.2301 (07/02)** Performance objectives and procedures for provisioning and maintenance of IP-based networks

26pp E 22906 F 22907 S 22908 17 CHF

**M.2401 (12/03)** Error performance limits and procedures for bringing-into-service and maintenance of multi-operator international paths and sections within an optical transport network

18pp E 24974 F 24975 S 24976 12 CHF

### *Telecommunications management network*

**M.3000 (02/00)** Overview of TMN Recommendations

32pp E 18601 F 18602 S 18603 17 CHF

**M.3010 (02/00)** Principles for a Telecommunications management network

40pp E 18328 F 18329 S 18330 17 CHF

### *Telecommunications management network*

**M.3010 (2000) Amendment 1 (12/03)** TMN conformance and TMN compliance

12pp E 24948 F 24949 S 24950 9 CHF

### *Telecommunications management network*

**M.3013 (02/00)** Considerations for a telecommunications management network

52pp E 18260 F 18261 S 18262 29 CHF

**M.3016 (06/98)** TMN security overview

16pp E 13712 F 13713 S 13714 17 CHF

### *Telecommunications management network*

**M.3017 (06/03)** Framework for the integrated management of hybrid circuit/packet networks

32pp E 24684 F 24685 S 24686 17 CHF

### *Telecommunications management network*

**M.3020 (02/00)** TMN Interface Specification Methodology

36pp E 19477 F 19478 S 19479 22 CHF

**M.3030 (08/02)** Telecommunications Markup Language (tML) framework

36pp E 23170 F 23171 S 23172 17 CHF

**M.3100 (07/95)** Generic network information model

100pp E 6662 F 6663 S 6664 15 CHF

**M.3100 (1995) Amendment 1 (03/99)**

80pp E 16129 F 16130 S 16131 34 CHF

**M.3100 (1995) Amendment 2 (02/00)** Enhancement of M.3100

20pp E 19445 F 19446 S 19447 17 CHF

**M.3100 (1995) Amendment 3 (01/01)** Definition of the management interface for a generic alarm reporting control (ARC) feature

44pp E 20587 F 20588 S 20589 22 CHF

**M.3100 (1995) Amendment 4 (08/01)** Definition of the management interface for a bridge?and?roll cross-connect feature

24pp E 21815 F 21816 S 21817 17 CHF

**M.3100 (1995) Amendment 5 (08/01)** Enhanced cross-connect model

20pp E 21874 F 21875 S 21876 12 CHF

**M.3100 (1995) Amendment 6 (03/03)**

17pp E 23919 F 23920 S 23921 12 CHF

### *Telecommunications management network*

**M.3100 (1995) Amendment 7 (12/03)**

12pp E 25249 9 CHF

### *Telecommunications management network*

**M.3100 (1995) Corrigendum 1 (06/98)**

**M.3100 (1995) Corrigendum 2 (01/01)**

**M.3100 (1995) Corrigendum 3 (08/01)**

**M.3101 (07/95)** Managed object conformance statements for the generic network information model

100pp E 6297 F 6298 S 6299 39 CHF

*M.3108 TMN management services for dedicated and reconfigurable circuits network*

**M.3108.1 (03/99)** TMN management services for dedicated and reconfigurable circuits network: Information model for management of leased circuit and reconfigurable services

88pp E 16138 F 16139 S 16140 39 CHF

**M.3108.1 (1999) Corrigendum 1 (01/01)**

**M.3108.2 (02/00)** TMN management services for dedicated and reconfigurable circuits network: Information model for connection management of preprovisioned service link connections to form a reconfigurable leased service

48pp E 19114 F 19115 S 19116 22 CHF

**M.3108.3 (01/01)** TMN management services for dedicated and reconfigurable circuits network: Information model for management of virtual private network service

20pp E 20488 F 20489 S 20490 12 CHF

**M.3120 (10/01)** CORBA generic network and network element level information model

24pp E 22073 F 22074 S 22075 67 CHF

**M.3120 (2001) Amendment 1 (05/02)** Protection Switching

34pp E 22414 F 22415 S 22416 17 CHF

**M.3120 (2001) Amendment 2 (03/03)**

26pp E 23897 F 23898 S 23899 17 CHF

**M.3180 (10/92)** Catalogue of TMN management information

16pp E 3561 F 3560 S 3562 15 CHF

**M.3200 (04/97)** TMN management services and telecommunications managed areas: overview

28pp E 11704 F 11705 S 11706 17 CHF

**M.3207.1 (05/96)** TMN management service: maintenance aspects of B-ISDN management

12pp E 7433 F 7434 S 7435 12 CHF

*M.3208 TMN management services for dedicated and reconfigurable circuits network*

**M.3208.1 (10/97)** Leased circuit services

92pp E 12556 F 12557 S 12558 39 CHF

**M.3208.1 (1997) Corrigendum 1 (02/00)**

**M.3208.2 (03/99)** Connection management of pre-provisioned service link connections to form a leased circuit service

40pp E 15958 F 15959 S 15960 22 CHF

**M.3208.2 (1999) Corrigendum 1 (01/01)**

**M.3208.3 (02/00)** Virtual private network

36pp E 19436 F 19437 S 19438 22 CHF

**M.3210.1 (01/01)** TMN management services for IMT-2000 security management

30pp E 20392 F 20393 S 20394 17 CHF

**M.3211.1 (05/96)** TMN management service: Fault and performance management of the ISDN access

8pp E 7234 F 7236 S 7237 9 CHF

**M.3300 (06/98)** TMN F interface requirements

28pp E 13967 F 13968 S 13969 17 CHF

**M.3320 (04/97)** Management requirements framework for the TMN X-Interface

32pp E 11811 F 11812 S 11813 17 CHF

*Telecommunications management network*

**M.3341 (12/03)** Requirements for QoS/SLA management over the TMN X-interface for IP-based services

28pp E 25551 F 25552 S 25553 17 CHF

*Telecommunications management network*

**M.3400 (02/00)** TMN Management Functions

108pp E 19730 F 19731 S 19732 44 CHF

## Integrated services digital networks

<b>M.3600 (10/92)</b>	Principles for the management of ISDNs			
20pp	E 3540	F 3539	S 3541	15 CHF
<b>M.3602 (10/92)</b>	Application of maintenance principles to ISDN subscriber installations			
8pp	E 3537	F 3536	S 3538	8 CHF
<b>M.3603 (10/92)</b>	Application of maintenance principles to ISDN basic rate access			
8pp	E 3474	F 3473	S 3475	8 CHF
<b>M.3604 (10/92)</b>	Application of maintenance principles to ISDN primary rate access			
17pp	E 3525	F 3524	S 3526	15 CHF
<b>M.3605 (10/92)</b>	Application of maintenance principles to static multiplexed ISDN basic rate access			
5pp	E 3477	F 3476	S 3478	8 CHF
<b>M.3610 (05/96)</b>	Principles for applying the TMN concept to the management of B-ISDN			
16pp	E 7338	F 7339	S 7340	12 CHF
<b>M.3611 (04/97)</b>	Test management of the B-ISDN ATM layer using the TMN			
52pp	E 12040	F 12041	S 12042	29 CHF
<b>M.3620 (10/92)</b>	Principles for the use of ISDN test calls, systems and responders			
4pp	E 3414	F 3413	S 3415	8 CHF
<b>M.3621 (07/95)</b>	Integrated management of the ISDN customer access			
7pp	E 6263	F 6264	S 6265	11 CHF
<b>M.3640 (10/92)</b>	Management of the D-channel – Data link layer and network layer			
21pp	E 3619	F 3618	S 3620	15 CHF
<b>M.3641 (10/94)</b>	Management information model for the management of the data link and network layer of the ISDN D-channel			
30pp	E 6025	F 6024	S 6026	20 CHF
<b>M.3650 (04/97)</b>	Network performance measurements of ISDN calls			
84pp	E 11889	F 11890	S 11891	39 CHF
<b>M.3660 (10/92)</b>	ISDN interface management services			
5pp	E 3522	F 3521	S 3523	8 CHF

## Common channel signalling systems

<b>M.4010 (10/92)</b>	Inter-Administration agreements on common channel Signalling System No. 6			
5pp	E 3398	F 3397	S 3399	8 CHF
<b>M.4030 (10/92)</b>	Transmission characteristics for setting up and lining up a transfer link for common channel Signalling System No. 6 (analogue version)			
5pp	E 3531	F 3530	S 3532	8 CHF
<b>M.4100 (05/96)</b>	Maintenance of common channel Signalling System No. 7			
12pp	E 7238	F 7239	S 7240	12 CHF
<b>M.4110 (05/96)</b>	Inter-Administration agreements on common channel Signalling System No. 7			
8pp	E 7241	F 7242	S 7243	9 CHF

### SERIES N

### Maintenance: international sound programme and television transmission circuits

## International sound-programme transmission

<b>N.1 (03/93)</b>	Definitions for application to international sound-programme and television-sound transmission			
8pp	E 5169	F 5225	S 5260	11 CHF
<b>N.2 (11/88)</b>	Different types of sound-programme circuit			
<i>Individually through the Electronic Bookshop:</i>				20 CHF
<b>N.3 (11/88)</b>	Control circuits			
<i>Individually through the Electronic Bookshop:</i>				20 CHF
<b>N.4 (11/88)</b>	Definition and duration of the line-up period and the preparatory period			
<i>Individually through the Electronic Bookshop:</i>				20 CHF
<b>N.5 (11/88)</b>	Sound-programme control, sub-control and send reference stations			
<i>Individually through the Electronic Bookshop:</i>				20 CHF
<b>N.10 (03/93)</b>	Limits for the lining-up of international sound-programme links and connections			
6pp	E 4038	F 4037	S 4039	8 CHF
<b>N.11 (11/88)</b>	Essential transmission performance objectives for international sound-programme centres (ISPC)			
<i>Individually through the Electronic Bookshop:</i>				20 CHF

**N.12 (11/88)** Measurements to be made during the line-up period that precedes a sound-programme transmission

*Individually through the Electronic Bookshop:* 20 CHF

**N.13 (11/88)** Measurements to be made by the broadcasting organizations during the preparatory period

*Individually through the Electronic Bookshop:* 20 CHF

**N.15 (11/88)** Maximum permissible power during an international sound-programme transmission

*Individually through the Electronic Bookshop:* 20 CHF

**N.16 (11/88)** Identification signal

*Individually through the Electronic Bookshop:* 20 CHF

**N.17 (11/88)** Monitoring the transmission

*Individually through the Electronic Bookshop:* 20 CHF

**N.18 (11/88)** Monitoring for charging purposes, releasing

*Individually through the Electronic Bookshop:* 20 CHF

**N.21 (11/88)** Limits and procedures for the lining-up of a sound-programme circuit

*Individually through the Electronic Bookshop:* 20 CHF

**N.23 (11/88)** Maintenance measurements to be made on international sound-programme circuits

*Individually through the Electronic Bookshop:* 20 CHF

### *International television transmission*

**N.51 (11/88)** Definitions for application to international television transmissions

*Individually through the Electronic Bookshop:* 20 CHF

**N.52 (11/88)** Multiple destination television transmissions and coordination centres

*Individually through the Electronic Bookshop:* 20 CHF

**N.54 (11/88)** Definition and duration of the line-up period and the preparatory period

*Individually through the Electronic Bookshop:* 20 CHF

**N.55 (03/93)** Organization, responsibilities and functions of control and sub-control international television centres and control and sub-control stations for international television connections, links, circuits and circuit sections

7pp E 4937 F 4936 S 4938 11 CHF

**N.60 (03/93)** Nominal amplitude of video signals at video interconnection points

3pp E 4237 F 4236 S 4238 8 CHF

**N.61 (11/88)** Measurements to be made before the line-up period that precedes a television transmission

*Individually through the Electronic Bookshop:* 20 CHF

**N.62 (03/93)** Tests to be made during the line-up period that precedes a television transmission

5pp E 4240 F 4239 S 4241 8 CHF

**N.63 (11/88)** Test signals to be used by the broadcasting organizations during the preparatory period

*Individually through the Electronic Bookshop:* 20 CHF

**N.64 (11/88)** Quality and impairment assessment

*Individually through the Electronic Bookshop:* 20 CHF

**N.67 (03/93)** Monitoring television transmissions – Use of the field blanking interval

12pp E 4284 F 4283 S 4285 11 CHF

**N.73 (11/88)** Maintenance of permanent international television circuits, links and connections

*Individually through the Electronic Bookshop:* 20 CHF

### *International videoconference transmission*

#### **N.81 (11/88) Withdrawn (03/99)**

Definition for application to international videoconference transmissions

*This subject had only been identified and was left for further study. Then it was abandoned and the empty Recommendation was deleted*

*Individually through the Electronic Bookshop:*

#### **N.86 (03/93) Withdrawn (03/99)**

Line-up and service commissioning of international videoconference systems operating at transmission bit rates of 1544 and 2048 kbit/s

*Deleted because no system or equipment have implemented it during the last two study periods*

7pp E 4234 F 4233 S 4235 11 CHF

#### **N.90 (03/93) Withdrawn (03/99)**

Maintenance of international videoconference systems operating at transmission bit rates of 1544 and 2048 kbit/s

*Deleted because no system or equipment have implemented it during the last two study periods*

4pp E 4204 F 4203 S 4205 8 CHF

## SERIES O

### Specifications of measuring equipment

#### General

**O.1 (02/00)** Scope and application of measurement equipment specifications covered in the O-series Recommendations

32pp      E 19819      F 19820      S 19821      17 CHF

**O.3 (10/92)** Climatic conditions and relevant tests for measuring equipment

4pp      E 3453      F 3452      S 3454      8 CHF

**O.6 (11/88)** 1020 Hz reference test frequency

*Individually through the Electronic Bookshop:*      20 CHF

**O.9 (03/99)** Measuring arrangements to assess the degree of unbalance about earth

20pp      E 16144      F 16145      S 16146      17 CHF

#### Maintenance access

**O.11 (10/92)** Maintenance access lines

7pp      E 3392      F 3391      S 3393      8 CHF

#### Automatic and semi-automatic measuring systems

**O.22 (10/92)** CCITT automatic transmission measuring and signalling testing equipment ATME No. 2

32pp      E 3613      F 3612      S 3614      15 CHF

**O.25 (11/88)      Withdrawn (03/93)**

Semiautomatic in-circuit echo suppressor testing system (ESTS)

*Deleted after its content became technically out of date*

**O.27 (11/88)** In-station echo canceller test equipment

*Individually through the Electronic Bookshop:*      20 CHF

**O.31 (11/88)      Withdrawn (03/93)**

Automatic measuring equipment for sound-programme circuits

*Deleted after its content became technically out of date*

**O.32 (11/88)      Withdrawn (03/93)**

Automatic measuring equipment for stereophonic pairs of sound-programme circuits

*Deleted after its content became technically out of date*

**O.33 (07/95)** Automatic equipment for rapidly measuring stereophonic pairs and monophonic sound-programme circuits, links and connections

12pp      E 6175      F 6174      S 6176      11 CHF

#### Equipment for the measurement of analogue parameters

**O.41 (10/94)** Psophometer for use on telephone-type circuits

*This Recommendation is also included but not published in P series under alias number P.53*

13pp      E 5921      F 5920      S 5922      11 CHF

**O.42 (11/88)** Equipment to measure non-linear distortion using the 4-tone intermodulation method

*Individually through the Electronic Bookshop:*      20 CHF

**O.51 (11/88)      Withdrawn (03/93)**

Volume meters

*O.51 was an alias name of ITU-T P.52. Only this alias name was suppressed. ITU-T P.52 remains valid*

*Individually through the Electronic Bookshop:*

**O.61 (11/88)** Simple equipment to measure interruptions on telephone-type circuits

*Individually through the Electronic Bookshop:*      20 CHF

**O.62 (11/88)** Sophisticated equipment to measure interruptions on telephone-type circuits

*Individually through the Electronic Bookshop:*      20 CHF

**O.71 (11/88)** Impulsive noise measuring equipment for telephone-type circuits

*This Recommendation is also included but not published in V series under alias number V.55*

*Individually through the Electronic Bookshop:*      20 CHF

**O.72 (10/84)** Characteristics of an impulsive noise measuring instrument for wideband data transmissions

*This Recommendation is published under alias number H.16.*

*Individually through the Electronic Bookshop:*      20 CHF

**O.81 Appendix I Erratum (06/00)** Erratum to Recommendation ITU-T O.81/Appendix I (06/98)

**O.81 (11/88)** Group-delay measuring equipment for telephone-type circuits

*Individually through the Electronic Bookshop:*      20 CHF



**O.81 Appendix I (06/98)** A measuring signal (multitone test signal) for fast measurement of amplitude and phase for telephone type circuits  
*Covering note, May 2000: Erratum*

*Formerly published as Supplement 3.7 in the Blue Book (1988), Fascicle IV.4, and then renumbered on 26 June 1998 as Appendix I to ITU-T O.81 without further modification.*

8pp E 17234 F 17235 S 17236 9 CHF

**O.82 (11/88)** Group-delay measuring equipment for the range 5 to 600 kHz  
*Individually through the Electronic Bookshop:* 20 CHF

**O.91 (11/88)** Phase jitter measuring equipment for telephone-type circuits  
*Individually through the Electronic Bookshop:* 20 CHF

**O.95 (11/88)** Phase and amplitude hit counters for telephone-type circuits  
*Individually through the Electronic Bookshop:* 20 CHF

**O.111 (11/88)** Frequency shift measuring equipment for use on carrier channels  
*Individually through the Electronic Bookshop:* 20 CHF

### *Equipment for the measurement of digital and analogue/digital parameters*

**O.131 (11/88)** Quantizing distortion measuring equipment using a pseudo-random noise test signal  
*Individually through the Electronic Bookshop:* 20 CHF

**O.132 (11/88)** Quantizing distortion measuring equipment using a sinusoidal test signal  
*Individually through the Electronic Bookshop:* 20 CHF

**O.133 (03/93)** Equipment for measuring the performance of PCM encoders and decoders  
 26pp E 5062 F 5061 S 5063 15 CHF

**O.150 (05/96)** General requirements for instrumentation for performance measurements on digital transmission equipment  
 20pp E 9625 F 9626 S 9627 17 CHF

### **O.150 (1996) Corrigendum 1 (05/02)**

**O.151 (10/92)** Error performance measuring equipment operating at the primary rate and above  
 5pp E 3417 F 3416 S 3418 8 CHF

### **O.151 (1992) Corrigendum 1 (05/02)**

**O.152 (10/92)** Error performance measuring equipment for bit rates of 64 kbit/s and  $N \times 64$  kbit/s  
 4pp E 3360 F 3359 S 3361 8 CHF

**O.153 (10/92)** Basic parameters for the measurement of error performance at bit rates below the primary rate  
 6pp E 3363 F 3362 S 3364 8 CHF

**O.161 (11/88)** In-service code violation monitors for digital systems  
*Individually through the Electronic Bookshop:* 20 CHF

**O.162 (10/92)** Equipment to perform in-service monitoring on 2048, 8448, 34 368 and 139 264 kbit/s signals  
 7pp E 3546 F 3545 S 3547 8 CHF

**O.163 (11/88)** Equipment to perform in-service monitoring on 1544 kbit/s signals  
*Individually through the Electronic Bookshop:* 20 CHF

**O.171 (04/97)** Timing jitter and wander measuring equipment for digital systems which are based on the plesiochronous digital hierarchy (PDH)  
 32pp E 11780 F 11781 S 11782 17 CHF

**O.172 (03/01)** Jitter and wander measuring equipment for digital systems which are based on the synchronous digital hierarchy (SDH)  
 52pp E 20616 F 20617 S 20617 22 CHF

**O.172 (2001) Amendment 1 (03/03)** Jitter and wander measuring equipment for digital systems which are based on the synchronous digital hierarchy (SDH) Amendment 1  
 16pp E 23968 F 23969 S 23970 12 CHF

### *Equipment for the measurement of analogue parameters*

**O.173 (03/03)** Jitter measuring equipment for digital systems which are based on the Optical Transport Network (OTN)  
 16pp E 23922 F 23923 S 23924 12 CHF

### *Equipment for the measurement of digital and analogue/digital parameters*

**O.181 (05/02)** Equipment to assess error performance on STM-N interfaces  
 44pp E 22354 F 22355 S 22356 22 CHF

**O.191 (02/00)** Equipment to measure the cell transfer performance of ATM connections  
 72pp E 18055 F 18056 S 18057 34 CHF

**O.201 (07/03)** Q-factor test equipment to estimate the transmission performance of optical channels  
 29pp E 24734 F 24735 S 24736 17 CHF



**SERIES P****Telephone transmission quality,  
telephone installations, local line  
networks***Vocabulary and effects of transmission  
parameters on customer opinion of transmission  
quality***P.10 (12/98)** Vocabulary of terms on telephone  
transmission quality and telephone sets

36pp E 15511 F 15512 S 15513 22 CHF

**P.10 (1998) Amendment 1 (11/03)** New Annex A:  
List of psychoacoustic parameters

10pp E 24761 9 CHF

**P.11 (03/93)** Effect of transmission impairments

32pp E 4955 F 4954 S 4956 15 CHF

**P.16 (11/88)** Subjective effects of direct crosstalk;  
thresholds of audibility and intelligibility*Individually through the Electronic Bookshop:* 20 CHF*Subscribers' lines and sets***P.32 (11/88)** Evaluation of the efficiency of  
telephone booths and acoustic hoods*Individually through the Electronic Bookshop:* 20 CHF**P.33 (11/88) Withdrawn (09/97)**Subscriber telephone sets containing either  
loudspeaking receivers or microphones associated  
with amplifiers*Deleted after the relevant information contained in this  
Recommendation was incorporated in new ITU-T P.340**Individually through the Electronic Bookshop:***P.38 (03/93)** Transmission characteristics of operator  
telephone systems (OTS)

2pp E 4314 F 4313 S 4315 8 CHF

*Transmission standards***P.48 (11/88)** Specification for an intermediate  
reference system*Individually through the Electronic Bookshop:* 20 CHF*Objective measuring apparatus***P.50 (09/99)** Artificial voices*Covering note, May 2000: Erratum*

20pp E 17581 F 17582 S 17583 17 CHF

**P.50 Appendix I (02/98)** Test signals*This Appendix includes an electronic attachment  
containing the speech database for telephonometry  
applications. Due to volume constraints, this database is  
only available on CD-ROM. The text of the appendix  
remains freely available on the ITU website for  
information purposes*

62pp E 14057 F 14058 S 14059 29 CHF

*Objective measuring apparatus***P.50 Erratum (05/00)** Erratum to Recommendation  
ITU-T P.50 (09/99)*Objective measuring apparatus***P.51 (08/96)** Artificial mouth

12pp E 9874 F 9875 S 9876 12 CHF

**P.52 (03/93)** Volume meters

3pp E 4275 F 4274 S 4276 8 CHF

**P.53 (10/94)** Psophometer for use on telephone-type  
circuits*This Recommendation is published under alias  
number O.41***P.54 (11/88)** Sound level meters (apparatus for the  
objective measurement of room noise)*Individually through the Electronic Bookshop:* 20 CHF**P.55 (11/88)** Apparatus for the measurement of  
impulsive noise*Individually through the Electronic Bookshop:* 20 CHF**P.56 (03/93)** Objective measurement of active speech  
level*Corresponding ANSI-C code is available in the SV56  
module of the ITU-T G.191 Software Tools Library*

12pp E 4704 F 4703 S 4705 11 CHF

**P.57 (07/02)** Artificial ears

34pp E 23108 F 23109 S 23110 17 CHF

**P.58 (08/96)** Head and torso simulator for  
telephonometry

36pp E 9654 F 9655 S 9656 22 CHF

**P.58 Erratum 1 (01/03)**

1pp E 108203 9 CHF

**P.59 (03/93)** Artificial conversational speech

4pp E 4584 F 4583 S 4585 8 CHF

## Objective electro-acoustical measurements

**P.61 (11/88)** Methods for the calibration of condenser microphones  
Individually through the Electronic Bookshop: 20 CHF

**P.62 (03/93) Withdrawn (06/98)**  
Measurements on subscribers' telephone equipment  
*P.62 is out of date and was deleted. The relevant text therein will be transferred to ITU-T P.35 during its revision*  
2pp E 4278 F 4277 S 4279 8 CHF

**P.63 (11/88) Withdrawn (09/97)**  
Methods for the evaluation of transmission quality on the basis of objective measurements  
*As this Recommendation didn't contain technical description, but only references to other out of date Recommendations and Supplements, it became obsolete and was deleted*  
Individually through the Electronic Bookshop:

**P.64 (09/99)** Determination of sensitivity/frequency characteristics of local telephone systems  
*Covering note, May 2000: Erratum*  
28pp E 17464 F 17465 S 17466 17 CHF

**P.64 Erratum (05/00)** Erratum to Recommendation ITU-T P.64 (09/99)

**P.65 (03/93) Withdrawn (06/98)**  
Objective instrumentation for the determination of loudness ratings  
*P.65 is out of date and was deleted. The relevant text therein was transferred to ITU-T P.64*  
5pp E 4587 F 4586 S 4588 8 CHF

**P.66 (03/93) Withdrawn (08/96)**  
Methods for evaluating the transmission performance of digital telephone sets  
*Deleted after having been merged with P.31 into ITU-T P.310*

## Measurements related to speech loudness

**P.75 (11/88)** Standard conditioning method for handsets with carbon microphones  
Individually through the Electronic Bookshop: 20 CHF

**P.76 (11/88)** Determination of loudness ratings; fundamental principles  
Individually through the Electronic Bookshop: 20 CHF

**P.78 (02/96)** Subjective testing method for determination of loudness ratings in accordance with Recommendation P.76  
20pp E 7209 F 7210 S 7211 17 CHF

**P.79 (09/99)** Calculation of loudness ratings for telephone sets  
*Covering note, May 2000: Erratum*  
*Covering note, 24 October 2000: Corrigendum 1*  
36pp E 17584 F 17585 S 17586 22 CHF

**P.79 Annex G (11/01)** Wideband loudness rating algorithm  
8pp E 22188 F 22189 S 22190 9 CHF

**P.79 (1999) Corrigendum 1 (10/00)**

**P.79 (1999) Corrigendum 2 (05/01)**

**P.79 Erratum 1 (05/00)** Erratum to Recommendation ITU-T P.79 (09/99)

## Methods for objective and subjective assessment of quality

**P.80/P.800 (08/96)** Methods for subjective determination of transmission quality  
*Former Rec. P.80*

**P.82 (11/88)** Method for evaluation of service from the standpoint of speech transmission quality  
Individually through the Electronic Bookshop: 20 CHF

**P.85 (06/94)** A method for subjective performance assessment of the quality of speech voice output devices  
9pp E 5585 F 5584 S 5586 11 CHF

## Subscribers' lines and sets

**P.300 (11/01)** Transmission performance of group audio terminals (GATs)  
20pp E 21681 F 21682 S 21683 12 CHF

## Subscribers' lines and sets

**P.310 (03/03)** Transmission characteristics for telephone band (300-3400 Hz) digital telephones  
31pp E 24263 F 24264 S 24265 17 CHF

**P.311 (02/98)** Transmission characteristics for wideband (150-7000 Hz) digital handset telephones  
20pp E 13191 F 13192 S 13193 17 CHF

**P.313 (09/99)** Transmission characteristics for cordless and mobile digital terminals  
24pp E 17593 F 17594 S 17595 17 CHF

**P.330 (03/03)** Speech processing devices for acoustic enhancement  
18pp E 24149 F 24150 S 24151 12 CHF

**P.330 (2003) Amendment 1 (09/03)**

1pp	E 24551	F 24552	S 24553	9 CHF
-----	---------	---------	---------	-------

**P.340 (05/00) Transmission characteristics of hands-free telephones**

44pp	E 19665	F 19666	S 19667	22 CHF
------	---------	---------	---------	--------

**P.340 (2000) Corrigendum 1 (03/04)****P.341 (02/98) Transmission characteristics for wideband (150-7000 Hz) digital hands-free telephony terminals**

20pp	E 13522	F 13523	S 13524	17 CHF
------	---------	---------	---------	--------

**P.341 (1998) Corrigendum 1 (09/99)****P.342 (05/00) Transmission characteristics for telephone band (300-3400 Hz) digital loudspeaking and hands-free telephony terminals**

20pp	E 19552	F 19553	S 19554	17 CHF
------	---------	---------	---------	--------

**P.350 (03/01) Handset dimensions – Formerly ITU-T P.35**

12pp	E 20566	F 20567	S 20568	9 CHF
------	---------	---------	---------	-------

**P.360 (12/98) Efficiency of devices for preventing the occurrence of excessive acoustic pressure by telephone receivers***Former Rec. P.36, renumbered P.360*

12pp	E 14550	F 14551	S 14552	12 CHF
------	---------	---------	---------	--------

**P.370 (08/96) Coupling Hearing Aids to Telephone sets***Former Rec. P.37, renumbered P.370*

20pp	E 9944	F 9945	S 9946	17 CHF
------	--------	--------	--------	--------

**P.380 (11/03) Electro-acoustic measurements on headsets**

12pp	E 24825			9 CHF
------	---------	--	--	-------

*Objective measuring apparatus***P.501 (05/00) Test signals for use in telephonometry***This Recommendation includes an electronic attachment containing test signals for telephonometry applications.*

37pp	E 19888	F 19889	S 19890	72 CHF
------	---------	---------	---------	--------

**P.501 Erratum 1 (09/01) Erratum to Recommendation ITU-T P.501 (05/00)****P.502 (05/00) Objective test methods for speech communication systems using complex test signals**

64pp	E 20052	F 20053	S 20054	29 CHF
------	---------	---------	---------	--------

**P.502 Erratum 1 (07/01) Erratum to Recommendation ITU-T P.502 (05/00)***Objective measuring apparatus***P.561 (07/02) In-service non-intrusive measurement device – Voice service measurements**

56pp	E 23154	F 23155	S 23156	29 CHF
------	---------	---------	---------	--------

*Objective measuring apparatus***P.562 (05/00) Analysis and interpretation of INMD voice-services measurements**

58pp	E 19314	F 19315	S 19316	29 CHF
------	---------	---------	---------	--------

**P.581 (05/00) Use of head and torso simulator (HATS) for hands-free terminal testing**

12pp	E 19492	F 19493	S 19494	12 CHF
------	---------	---------	---------	--------

*Methods for objective and subjective assessment of quality***P.800/P.80 (08/96) Methods for subjective determination of transmission quality***Former Rec. P.80*

36pp	E 9713	F 9714	S 9715	22 CHF
------	--------	--------	--------	--------

**P.800.1 (03/03) Mean Opinion Score (MOS) terminology**

10pp	E 23960	F 23961	S 23962	9 CHF
------	---------	---------	---------	-------

**P.810 (02/96) Modulated noise reference unit (MNRU)***Corresponding ANSI-C code is available in the MNRU module of the ITU-T G.191 Software Tools Library*

12pp	E 7139	F 7140	S 7141	12 CHF
------	--------	--------	--------	--------

**P.830 (02/96) Subjective performance assessment of telephone-band and wideband digital codecs**

24pp	E 7163	F 7164	S 7165	17 CHF
------	--------	--------	--------	--------

**P.831 (12/98) Subjective performance evaluation of network echo cancellers**

32pp	E 15473	F 15474	S 15475	17 CHF
------	---------	---------	---------	--------

*Methods for objective and subjective assessment of quality***P.832 (05/00) Subjective performance evaluation of hands-free terminals**

28pp	E 19427	F 19428	S 19429	17 CHF
------	---------	---------	---------	--------

**P.833 (02/01) Methodology for derivation of equipment impairment factors from subjective listening-only tests**

24pp	E 21045	F 21046	S 21047	17 CHF
------	---------	---------	---------	--------

*Methods for objective and subjective assessment of quality*

**P.834 (07/02)** Methodology for derivation of equipment impairment factors from instrumental models  
E 22974 F 22975 S 22976 67 CHF

*Methods for objective and subjective assessment of quality*

**P.835 (11/03)** Subjective test methodology for evaluating speech communication systems that include noise suppression algorithm  
18pp E 24822 12 CHF

**P.840 (11/03)** Subjective listening test method for evaluating circuit multiplication equipment  
*Former ITU-T P.84*  
31pp E 24907 17 CHF

**P.851 (11/03)** Subjective quality evaluation of telephone services based on spoken dialogue systems  
35pp E 25174 17 CHF

*Methods for objective and subjective assessment of quality*

**P.861 (02/98) Withdrawn (07/01)**  
Objective quality measurement of telephone-band (300-3400 Hz) speech codecs  
*P.861 was recognized as having certain limitations in specific areas of application. It was replaced by P.862, which contains an improved objective speech quality assessment algorithm. P.861 included one diskette containing test vectors for implementation verification of the PSQM algorithm*  
40pp E 13580 F 13581 S 13582 62 CHF

*Methods for objective and subjective assessment of quality*

**P.862 (02/01)** Perceptual evaluation of speech quality (PESQ), an objective method for end-to-end speech quality assessment of narrowband telephone networks and speech codecs  
30pp E 22134 F 22135 S 22136 67 CHF

*Methods for objective and subjective assessment of quality*

**P.862 (2001) Amendment 1 (03/03)** Revised Annex A: Source code for the reference implementation and conformance tests  
E 24393 F 24394 S 24395 62 CHF

*Methods for objective and subjective assessment of quality*

**P.862.1 (11/03)** Mapping function for transforming P.862 raw result scores to MOS-LQO  
10pp E 24951 9 CHF

*Audiovisual quality in multimedia services*

**P.910 (09/99)** Subjective video quality assessment methods for multimedia applications  
36pp E 17681 F 17682 S 17683 22 CHF

**P.911 (12/98)** Subjective audiovisual quality assessment methods for multimedia applications  
28pp E 15366 F 15367 S 15368 17 CHF

**P.911 (1998) Corrigendum 1 (09/99)**

**P.920 (05/00)** Interactive test methods for audiovisual communications  
16pp E 19323 F 19324 S 19325 12 CHF

**P.930 (08/96)** Principles of a reference impairment system for video  
36pp E 9736 F 9737 S 9738 22 CHF

**P.931 (12/98)** Multimedia communications delay, synchronization and frame rate measurement  
48pp E 14613 F 14614 S 14615 22 CHF

**Supplements to the Series P Recommendations**

**Suppl. 10 (11/88)** Considerations relating to transmission characteristics for analogue handset telephones  
20 CHF

**Suppl. 16 (11/88)** Guidelines for placement of microphones and loudspeakers in telephone conference rooms [1] and for Group Audio Terminals (GATs)  
20 CHF

**Suppl. 20 (03/93)** Examples of measurements of handset receive-frequency responses: dependence on earcup leakage losses  
5pp E 4844 F 4843 S 4845 8 CHF

**Suppl. 23 (02/98)** ITU-T coded-speech database

*This Supplement includes 3 CD-ROMs containing the ITU-T coded speech database for 8 kbit/s codec tests. Due to the quantity of data, this publication is only available on CD-ROM. The text of the Supplement is freely available on ITU website for information purposes*

10pp      E 14061    F 14062    S 14063      9 CHF

**SERIES Q****Switching and signalling****Suppl. 9 (04/04)** Technical Report TRQ.2000:  
Roadmap for the TRQ.2xxx-series Technical Reports

27pp      E 25240      17 CHF

**Suppl. 42 (03/04)** Technical Report TRQ.2402:  
Transport control signalling requirements –  
Signalling requirements for AAL type 2 Link control  
Capability Set 3

To be published...

**Suppl. 43 (03/04)** Technical Report TRQ.2415:  
Transport control signalling requirements –  
Signalling requirements for IP connection control in  
radio access networks Capability Set 1

To be published...

**Suppl. 44 (03/04)** Technical Report TRQ.2800:  
Transport control signalling requirements –  
Signalling requirements for AAL type 2 to IP  
interworking Capability Set 1

To be published...

**Suppl. 45 (03/04)** Technical Report TRQ.2815:  
Requirements for interworking BICC/ISUP network  
with originating/destination networks based on  
Session Initiation Protocol and Session Description  
Protocol

34pp      E 24839      22 CHF

**Suppl. 46 (03/04)** Technical Report TRQ.2830:  
ATM-MPLS network interworking signalling  
requirements

22pp      E 24512    F 24513    S 24514      17 CHF

**Suppl. 47 (03/04)** Emergency services for IMT-2000  
networks – Requirements for harmonization and  
convergence

12pp      E 24848    F 24849      9 CHF

**Suppl. 48 (04/04)** Guideline document for specifying  
API/object interface between network control and  
application layer

13pp      E 25447      12 CHF

**Suppl. 49 (04/04)** Technical Report TRQ.2840:  
Signalling requirements to support IP telephony

To be published...

**Suppl. 50 (04/04)** Technical Report TRQ.2145:  
Requirements for a Narrowband Signalling  
Syntax (NSS)

To be published...

**Q.1 (11/88)** Signal receivers for manual working

*Individually through the Electronic Bookshop:*      20 CHF

**Q.2 (11/88)** Signal receivers for automatic and semi-  
automatic working, used for manual working

*Individually through the Electronic Bookshop:*      20 CHF

**International automatic and semi-automatic  
working***Basic Recommendations***Q.4 (11/88)** Automatic switching functions for use in  
national networks

*Individually through the Electronic Bookshop:*      20 CHF

**Q.5 (11/88)** Advantages of semi-automatic service in  
the international telephone service

*Individually through the Electronic Bookshop:*      20 CHF

**Q.6 (11/88)** Advantages of international automatic  
working

*Individually through the Electronic Bookshop:*      20 CHF

**Q.7 (11/88)** Signalling systems to be used for  
international automatic and semi-automatic  
telephone working

*Individually through the Electronic Bookshop:*      20 CHF

**Q.8 (11/88)** Signalling systems to be used for  
international manual and automatic working on  
analogue leased circuits

*Individually through the Electronic Bookshop:*      20 CHF



**Q.9 (11/88)** Vocabulary of switching and signalling terms  
*Individually through the Electronic Bookshop:* 39 CHF

*Numbering plan and dialling procedures in the international service*

**Q.10 (11/88) Withdrawn (03/93)**  
Definitions relating to national and international numbering plans  
*Deleted Q.10 was an extract of ITU-T E.160. E.160 was later replaced by ITU-T E.164*  
*Individually through the Electronic Bookshop:*

**Q.11ter (11/88) Withdrawn (03/93)**  
Timetable for coordinated implementation of the full capability of the numbering plan for the ISDN era (Recommendation E.164)  
*Q.11 ter was an alias name of ITU-T E.165. Only this alias name was suppressed. ITU-T E.165 remains valid*  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.11 bis (08/91) Withdrawn (03/93)**  
Numbering plan for the ISDN era  
*Q.11 bis was an alias name of ITU-T E.164. Only this alias name was suppressed. ITU-T E.164 remains valid*

*Routing plan for international service*

**Q.12 (11/88)** Overflow – alternative routing – rerouting – automatic repeat attempt  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.13 (11/88) Withdrawn (03/93)**  
International telephone routing plan  
*Q.13 was an alias name of ITU-T E.171. Only this alias name was suppressed. ITU-T E.171 remains valid*  
*Individually through the Electronic Bookshop:*

**Q.14 (11/88)** Means to control the number of satellite links in an international telephone connection  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.15 (11/88) Withdrawn (03/93)**  
Nominal mean power during the busy hour  
*Deleted Q.15 was an extract of ITU-T G.223. ITU-T G.223 remains valid*  
*Individually through the Electronic Bookshop:*

**Q.16 (11/88) Withdrawn (03/93)**  
Maximum permissible value for the absolute power level of a signalling pulse  
*Q.16 was an alias name of ITU-T G.224. Only this alias name was suppressed. ITU-T G.224 remains valid*  
*Individually through the Electronic Bookshop:*

*General Recommendations relative to signalling and switching systems (national or international)*

**Q.20 (11/88)** Comparative advantages of "in-band" and "out-band" systems  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.21 (11/88)** Systems recommended for out-band signalling  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.22 (11/88)** Frequencies to be used for in-band signalling  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.23 (11/88)** Technical features of push-button telephone sets  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.24 (11/88)** Multifrequency push-button signal reception  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.25 (11/88)** Splitting arrangements and signal recognition times in "in-band" signalling systems  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.26 (11/88)** Direct access to the international network from the national network  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.27 (11/88)** Transmission of the answer signal  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.28 (11/88)** Determination of the moment of the called subscriber's answer in the automatic service  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.29 (11/88)** Causes of noise and ways of reducing noise in telephone exchanges  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.30 (11/88)** Improving the reliability of contacts in speech circuits  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.31 (11/88)** Noise in a national 4-wire automatic exchange  
*Individually through the Electronic Bookshop:* 20 CHF



**Q.32 (11/88)** Reduction of the risk of instability by switching means  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.33 (11/88)** Protection against the effects of faulty transmission on groups of circuits  
*Individually through the Electronic Bookshop:* 20 CHF

## International operation

### Tones in national signalling systems

**Q.35/E.180 (03/98)** Technical characteristics of tones for the telephone service  
*This Recommendation is published with the double number E.180 and Q.35*  
16pp E 13110 F 13111 S 13112 12 CHF

## International automatic and semi-automatic working

### Tones for use in national signalling systems

**Q.36 (11/88) Withdrawn (03/93)**  
Customer recognition of foreign tones  
*Q.36 was an alias name of ITU-T E.181. Only this alias name was suppressed. ITU-T E.181 remains valid*  
*Individually through the Electronic Bookshop:*

### General characteristics for international telephone connections and circuits

**Q.40 (11/88) Withdrawn (03/93)**  
The transmission plan  
*Deleted Q.40 was an extract of ITU-T G.101. ITU-T G.101 remains valid*  
*Individually through the Electronic Bookshop:*

**Q.41 (11/88) Withdrawn (03/93)**  
Mean one-way propagation time  
*Deleted Q.41 was an extract of ITU-T G.114. ITU-T G.114 remains valid*  
*Individually through the Electronic Bookshop:*

**Q.42 (11/88) Withdrawn (03/93)**  
Stability and echo (echo suppressors)  
*Q.42 was an alias name of ITU-T G.131. Only this alias name was suppressed. ITU-T G.131 remains valid*  
*Individually through the Electronic Bookshop:*

**Q.43 (11/88) Withdrawn (03/93)**  
Transmission losses, relative levels  
*Deleted Q.43 was an extract of ITU-T G.101. ITU-T G.101 remains valid*  
*Individually through the Electronic Bookshop:*

**Q.44 (11/88)** Attenuation distortion  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.45 (10/84)** Transmission characteristics of an analogue international exchange  
Electronic Bookshop only  
20 CHF

**Q.45 bis (11/88)** Transmission characteristics of an analogue international exchange  
*Individually through the Electronic Bookshop:* 20 CHF

### Signalling for satellite systems

**Q.48 (11/88)** Demand assignment signalling systems  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.49 (10/92) Withdrawn (03/93)**  
CCITT automatic transmission measuring and signalling testing equipment ATME No. 2  
*Q.49 was an alias name of ITU-T O.22. Only this alias name was suppressed. ITU-T O.22 remains valid*  
*Individually through the Electronic Bookshop:*

### Signalling for circuit multiplication equipment

**Q.50 (07/01)** Signalling between Circuit Multiplication Equipment (CME) and International Switching Centres (ISC)  
27pp E 21781 F 21782 S 21783 17 CHF

**Q.50.1 (07/01)** Signalling between international switching centres (ISC) and digital circuit multiplication equipment (DCME) including the control of compression/decompression  
20pp E 21809 F 21810 S 21811 12 CHF

**Q.50.2 (12/02)** Signalling between International Switching Centres (ISC) and Digital Circuit Multiplication Equipment (DCME) including the control of compression/decompression over an IP network  
19pp E 23854 F 23855 S 23856 12 CHF

**Q.52 (03/01)** Signalling between international switching centres and stand-alone echo control devices  
14pp E 20563 F 20564 S 20565 12 CHF

**Q.55 (12/99)** Signalling between signal processing network equipment (SPNE) and international switching centres (ISC)  
64pp E 19561 F 19562 S 19563 29 CHF

**Q.56 (05/01)** Signalling between signal processing network equipment (SPNE) and international switching centres (ISC) over an IP network  
32pp E 21501 F 21502 S 21503 17 CHF

## Functions and information flows for services in the ISDN

### Methodology

- Q.65 (06/00)** The unified functional methodology for the characterization of services and network capabilities  
60pp E 19764 F 19765 S 19766 29 CHF

### Basic services

- Q.68 (03/93)** Overview of methodology for developing management services  
3pp E 4479 F 4478 S 4480 8 CHF
- Q.71 (03/93)** ISDN circuit mode switched bearer services  
143pp E 4826 F 4825 S 4827 47 CHF
- Q.72 (03/93)** Stage 2 description for packet mode services  
36pp E 4522 F 4521 S 4523 20 CHF
- Q.76 (02/95)** Service procedures for Universal Personal Telecommunication – Functional modelling and information flows  
75pp E 6093 F 6092 S 6094 30 CHF

### Supplementary services

- Q.80 (11/88)** Introduction to stage 2 service descriptions for supplementary services  
*Individually through the Electronic Bookshop:* 20 CHF

### Q.81 Stage 2 description for number identification supplementary services

- Q.81.1 (11/88)** Direct dialling-in  
*Individually through the Electronic Bookshop:* 20 CHF

- Q.81.2 (02/92)** Multiple subscriber number  
*Published with ITU-T Q.81.8.*  
7pp E 2617 F 2648 S 2679 15 CHF

- Q.81.3 (09/91)** Calling line identification presentation (CLIP) and calling line identification restriction (CLIR)  
*Published with ITU-T Q.81.5.*  
22pp E 2353 F 2331 S 2375 16 CHF

- Q.81.5 (09/91)** Connected line identification, presentation and restriction (COLP) and (COLR)  
*Published with ITU-T Q.81.3.*  
23pp E 2353 F 2331 S 2375 16 CHF

- Q.81.7 (06/97)** Malicious call identification (MCID)  
*This subject was only recognised and is for further study*  
28pp E 12299 F 12300 S 12301 17 CHF

- Q.81.8 (02/92)** Sub-addressing (SUB)  
*Published with ITU-T Q.81.2.*  
8pp E 2617 F 2648 S 2679 15 CHF

### Q.82 Stage 2 description for call offering supplementary services

- Q.82.1 (11/88)** Call transfer  
*Empty Recommendation. This subject was only recognised and is for further study.*

- Q.82.2 (03/93)** Call forwarding  
*Published with ITU-T Q.82.3.*  
51pp E 4913 F 4912 S 4914 24 CHF

- Q.82.3 (03/93)** Call deflection  
*Published with ITU-T Q.82.2.*  
34pp E 4913 F 4912 S 4914 24 CHF

- Q.82.4 (11/88)** Line hunting  
*Individually through the Electronic Bookshop:* 20 CHF

- Q.82.7 (07/96)** Explicit call transfer  
36pp E 9657 F 9658 S 9659 22 CHF

### Q.83 Stage 2 description for call completion supplementary services

- Q.83.1 (09/91)** Call waiting (CW)  
*Published with ITU-T Q.83.4.*  
13pp E 2352 F 2330 S 2374 13 CHF

- Q.83.2 (02/92)** Call hold  
19pp E 2618 F 2649 S 2680 15 CHF

- Q.83.3 (11/88)** Stage 2 description for call completion supplementary services : Completion of call to busy subscriber  
*Empty Recommendation. This service has only been identified and requires further study.*  
20 CHF

- Q.83.4 (09/91)** Terminal portability  
*Published with ITU-T Q.83.1.*  
13pp E 2352 F 2330 S 2374 13 CHF

### Q.84 Stage 2 description for multiparty supplementary services

- Q.84.1 (03/93)** Conference calling (CONF)  
43pp E 4482 F 4481 S 4483 8 CHF

- Q.84.2 (10/95)** Three-party service  
24pp E 6962 F 6961 S 6963 17 CHF

### Q.85 Stage 2 description for community of interest supplementary services

- Q.85.1 (02/92)** Closed user group  
*Published with ITU-T Q.85.3.*  
24pp E 2713 F 2712 S 2714 33 CHF

**Q.85.3 (02/92)** Multi-level precedence and preemption (MLPP)  
*Published with ITU-T Q.85.1.*  
 24pp E 2713 F 2712 S 2714 33 CHF

**Q.85.6 (02/95)** Global Virtual Network Service (GVNS)  
 31pp E 6019 F 6018 S 6020 20 CHF

**Q.85.6 Annex A (07/96)** Service procedures and information flows based on Intelligent Network CS-1 capabilities  
 60pp E 10343 F 10344 S 10345 29 CHF

### *Q.86 Stage 2 description for charging supplementary services*

**Q.86.1 (11/88)** Credit card call  
*Empty Recommendation. This service has only been identified and requires further study.*

**Q.86.2 (10/95)** Advice of charge (AOC)  
 40pp E 7009 F 7010 S 7011 22 CHF

**Q.86.3 (03/93)** Reverse charging (REV)  
 46pp E 5050 F 5049 S 5051 20 CHF

**Q.86.4 (06/97)** International Freephone Service (IFS)  
 20pp E 12236 F 12237 S 12238 17 CHF

**Q.86.7 (10/95)** International Telecommunication Charge Card (ITCC)  
 32pp E 6828 F 6829 S 6830 17 CHF

### *Q.87 Stage 2 description for additional information transfer supplementary services*

**Q.87.1 (03/93)** User-to-user signalling (UUS)  
 56pp E 5203 F 5240 S 5276 24 CHF

**Q.87.2 (11/88)** User signalling bearer services  
*Empty Recommendation. This service has only been identified and requires further study.*

## **Clauses applicable to ITU-T standard systems**

### *General clauses*

**Q.101 (11/88)** Facilities provided in international semi-automatic working  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.102 (11/88)** Facilities provided in international automatic working  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.103 (11/88)** Numbering used  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.104 (11/88)** Language digit or discriminating digit  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.105 (11/88)** National (significant) number  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.106 (11/88)** The sending-finished signal  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.107 bis (03/93)** Analysis of forward address information for routing  
 5pp E 4985 F 4984 S 4986 8 CHF

**Q.107 (11/88)** Standard sending sequence of forward address information  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.108 (11/88)** One-way or both-way operation of international circuits  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.109 (11/88)** Transmission of the answer signal in international exchanges  
*Individually through the Electronic Bookshop:* 20 CHF

### *Transmission clauses for signalling*

**Q.110 (11/88)** General aspects of the utilization of standardized CCITT signalling systems on PCM links  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.112 (11/88)** Signal levels and signal receiver sensitivity  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.113 (11/88)** Connection of signal receivers in the circuit  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.114 (11/88)** Typical transmission requirements for signal senders and receivers  
*Individually through the Electronic Bookshop:* 20 CHF

### *Control of echo suppressors*

**Q.115.0 (12/02)** Protocols for the control of signal processing network elements and functions  
 15pp E 23831 F 23832 S 23833 12 CHF

### **Q.115.0 Erratum 1 (09/03)**

**Q.115.1 (12/02)** Logic for the control of echo control devices and functions  
*Formerly Rec. Q.115*  
 56pp E 23989 F 23990 S 23991 29 CHF

### *Abnormal conditions*

**Q.116 (11/88)** Indication given to the outgoing operator or calling subscriber in case of an abnormal condition  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.117 (11/88)** Alarms for technical staff and arrangements in case of faults  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.118 (09/97)** Abnormal conditions – Special release arrangements  
 8pp E 12447 F 12448 S 12449 9 CHF

**Q.118 bis (11/88)** Indication of congestion conditions at transit exchanges  
*Individually through the Electronic Bookshop:* 20 CHF

## Specification of Signalling Systems No. 4 and No. 5

### Specifications of Signalling System No. 4

**Q.120-Q.139 (11/88)** Specifications of Signalling System No. 4  
 48pp E 22567 F 22567 S 22567 22 CHF

**Q.120 (11/88)** Definition and function of signals  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.121 (11/88)** Signal code  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.122 (11/88)** Signal sender  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.123 (11/88)** Signal receiver  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.124 (11/88)** Splitting arrangements  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.125 (11/88)** Speed of switching in international exchanges  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.126 (11/88)** Analysis and transfer of digital information  
*Empty Recommendation referring to Q.107 bis*

**Q.127 (11/88)** Release of registers  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.128 (11/88)** Switching to speech position  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.129 (11/88)** Maximum duration of a blocking signal  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.130 (11/88)** Special arrangements in case of failures in the sequence of signals  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.131 (11/88)** Abnormal release conditions of the outgoing register causing release of the international circuit  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.133 (11/88)** Numbering for access to automatic measuring and testing devices  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.134 (11/88)** Routine testing of equipment (local maintenance)  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.135 (11/88)** Principles of rapid transmission testing equipment  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.136 (11/88)** Loop transmission measurements  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.137 (11/88)** Automatic testing equipment  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.138 (11/88)** Instruments for checking equipment and measuring signals  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.139 (11/88)** Manual testing  
*Individually through the Electronic Bookshop:* 20 CHF

### Specifications of Signalling System No. 5

**Q.140 (11/88)** Definition and function of signals  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.140-Q.180 (11/88)** Specifications of Signalling System No. 5  
 68pp E 22645 F 22645 S 22645 29 CHF

**Q.141 (03/93)** Signal code for line signalling  
*Clause 2 (03/93) – Line signalling*  
 6pp E 4991 F 4990 S 4992 8 CHF

**Q.142 (11/88)** Double seizing with both-way operation  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.143 (11/88)** Line signal sender  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.144 (03/93)** Line signal receiver  
 3pp E 4548 F 4547 S 4549 8 CHF

**Q.145 (11/88)** Splitting arrangements  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.146 (11/88)** Speed of switching in international exchanges  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.151 (11/88)** Signal code for register signalling  
*Individually through the Electronic Bookshop:* 20 CHF

- Q.152 (11/88)** End-of-Pulsing conditions – Register arrangements concerning ST (end-of-pulsing) signal  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.153 (11/88)** Multifrequency signal sender  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.154 (11/88)** Multifrequency signal receiver  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.155 (11/88)** Analysis of digital information for routing  
*Empty Recommendation referring to Q.107 bis*
- Q.156 (11/88)** Release of international registers  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.157 (11/88)** Switching to the speech position  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.161 (11/88)** General arrangements for manual testing  
*Empty Recommendation referring to Q.107 bis*
- Q.162 (11/88)** Routine testing of equipment (local maintenance)  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.163 (11/88)** Manual testing  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.164 (11/88)** Testing equipment for checking equipment and signals  
*Individually through the Electronic Bookshop:* 20 CHF

### *Interworking of Signalling Systems No. 4 and No. 5*

- Q.180 (11/88)** Interworking of signalling systems No. 4 and No. 5  
*Individually through the Electronic Bookshop:* 20 CHF

## **Specifications of Signalling System No. 6**

### *Functional description of the signalling system*

- Q.251 (11/88)** General  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.251-Q.300 (11/88)** Specifications of Signalling System No. 6  
148pp E 22564 F 22565 S 22566 55 CHF
- Q.252 (11/88)** Signal transfer time definitions  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.253 (11/88)** Association between signalling and speech networks  
*Individually through the Electronic Bookshop:* 20 CHF

### *Definition and function of signals*

- Q.254 (11/88)** Telephone signals  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.255 (11/88)** Signalling-system-control signals  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.256 (11/88)** Management signals  
*Individually through the Electronic Bookshop:* 20 CHF

### *Signal unit formats and codes*

- Q.257 (11/88)** General  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.258 (11/88)** Telephone signals  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.259 (11/88)** Signalling-system-control signals  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.260 (11/88)** Management signals  
*Individually through the Electronic Bookshop:* 20 CHF

### *Signalling procedures*

- Q.261 (11/88)** Normal call set-up  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.262 (11/88)** Analysis of digital information for routing  
*Empty Recommendation referring to Q.107 bis*
- Q.263 (11/88)** Double seizing with both-way operation  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.264 (11/88)** Potential for automatic repeat attempt and re-routing  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.265 (11/88)** Speed of switching and signal transfer in international exchanges  
*Individually through the Electronic Bookshop:* 20 CHF



**Q.266 (11/88)** Blocking and unblocking sequences and control of quasi-associated signalling  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.267 (11/88)** Unreasonable and superfluous messages  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.268 (11/88)** Release of international connections and associated equipment  
*Individually through the Electronic Bookshop:* 20 CHF

### *Continuity check of the speech path*

**Q.271 (11/88)** General  
*Individually through the Electronic Bookshop:* 20 CHF

### *Signalling link*

**Q.272 (11/88)** Requirements for the signalling data link  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.273 (11/88)** Data transmission rate  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.274 (11/88)** Transmission methods – Modem and interface requirements  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.275 (11/88)** Data channel failure detection  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.276 (11/88)** Service dependability  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.277 (11/88)** Error control  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.278 (11/88)** Synchronization  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.279 (11/88)** Drift compensation  
*Individually through the Electronic Bookshop:* 20 CHF

### *Signal traffic characteristics*

**Q.285 (11/88)** Signal priority categories  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.286 (11/88)** Signalling channel loading and queueing delays  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.287 (11/88)** Signal transfer time requirements  
*Individually through the Electronic Bookshop:* 20 CHF

### *Security arrangements*

**Q.291 (11/88)** General  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.292 (11/88)** Reserve facilities provided  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.293 (11/88)** Intervals at which security measures are to be invoked  
*Individually through the Electronic Bookshop:* 20 CHF

### *Testing and maintenance*

**Q.295 (11/88)** Overall tests of Signalling System No. 6  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.296 (11/88)** Monitoring and maintenance of the common signalling channel  
*Individually through the Electronic Bookshop:* 20 CHF

### *Network management*

**Q.297 (11/88)** Network management  
*Individually through the Electronic Bookshop:* 20 CHF

### *Interworking between ITU-T Signalling System No. 6 and national common channel signalling systems*

**Q.300 (11/88)** Interworking between CCITT Signalling System No. 6 and national common channel signalling systems  
*Individually through the Electronic Bookshop:* 20 CHF

## **Specifications of Signalling System R1**

### *Definition and function of signals*

**Q.310 (11/88)** Definition and function of signals  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.310-Q.332 (11/88)** Specifications of Signalling System R1  
10pp E 21525 F 21526 S 21527 9 CHF

### *Line signalling*

**Q.311 (11/88)** 2600 Hz line signalling  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.312 (11/88)** 2600 Hz line signal sender (transmitter)  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.313 (11/88)** 2600 Hz line signal receiving equipment  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.314 (11/88)** PCM line signalling  
*Individually through the Electronic Bookshop:* 20 CHF



- Q.315 (11/88)** PCM line signal sender (transmitter)  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.316 (11/88)** PCM line signal receiver  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.317 (11/88)** Further specification clauses relative to line signalling  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.318 (11/88)** Double seizing with both-way operation  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.319 (11/88)** Speed of switching in international exchanges  
*Individually through the Electronic Bookshop:* 20 CHF

### Register signalling

- Q.320 (11/88)** Signal code for register signalling  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.321 (11/88)** End-of-pulsing conditions – Register arrangements concerning ST signal  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.322 (11/88)** Multifrequency signal sender  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.323 (11/88)** Multifrequency signal receiving equipment  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.324 (11/88)** Analysis of address information for routing  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.325 (11/88)** Release of registers  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.326 (11/88)** Switching to the speech position  
*Individually through the Electronic Bookshop:* 20 CHF

### Testing arrangements

- Q.327 (11/88)** General arrangements  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.328 (11/88)** Routine testing of equipment (local maintenance)  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.329 (11/88)** Manual testing  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.330 (11/88)** Automatic transmission and signalling testing  
*Individually through the Electronic Bookshop:* 20 CHF

- Q.331 (11/88)** Test equipment for checking equipment and signals  
*Individually through the Electronic Bookshop:* 20 CHF

### Interworking of Signalling System R1 with other standardized systems

- Q.332 (11/88)** Interworking  
*Specifications on interworking of System R1 with other signalling systems are not yet available. Typical information is found in Rec. Q.180*  
*Individually through the Electronic Bookshop:* 20 CHF

### Specifications of Signalling System R2

#### Definition and function of signals

- Q.400 (11/88)** Forward line signals  
*Individually through the Electronic Bookshop:* 20 CHF

#### Definition and function of signals

- Q.400-Q.490 (11/88)** Specifications of Signalling System R2  
 118pp E 21644 F 21645 S 21646 49 CHF

#### Line signalling, analogue version

- Q.411 (11/88)** Line signalling code  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.412 (11/88)** Clauses for exchange line signalling equipment  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.414 (11/88)** Signal sender  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.415 (11/88)** Signal receiver  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.416 (11/88)** Interruption control  
*Individually through the Electronic Bookshop:* 20 CHF

#### Line signalling, digital version

- Q.421 (11/88)** Digital line signalling code  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.422 (11/88)** Clauses for exchange line signalling equipment  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.424 (11/88)** Protection against the effects of faulty transmission  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.430 (11/88)** Conversion between analogue and digital versions of System R2 line signalling  
*Individually through the Electronic Bookshop:* 20 CHF

### *Interregister signalling*

**Q.440 (11/88)** General  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.441 (11/88)** Signalling code  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.442 (11/88)** Pulse transmission of backward signals A-3, A-4, A-6 or A-15. Multifrequency signalling equipment  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.450 (11/88)** General  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.451 (11/88)** Definitions  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.452 (11/88)** Requirements relating to transmission conditions  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.454 (11/88)** The sending part of the multifrequency signalling equipment  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.455 (11/88)** The receiving part of the multifrequency equipment  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.457 (11/88)** Range of interregister signalling  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.458 (11/88)** Reliability of interregister signalling  
*Individually through the Electronic Bookshop:* 20 CHF

### *Signalling procedures*

**Q.460 (11/88)** Normal call set-up procedures for international working  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.462 (11/88)** Signalling between the outgoing international R2 register and an incoming R2 register in an international exchange  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.463 (11/88)** Signalling between the outgoing international R2 register and an incoming R2 register in a national exchange in the destination country  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.464 (11/88)** Signalling between the outgoing international R2 register and the last incoming R2 register  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.465 (11/88)** Particular cases  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.466 (11/88)** Supervision and release of the call  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.468 (11/88)** Routing and numbering for international working  
*Empty Recommendation referring to Q.107 and Q.107 bis*

**Q.470 (11/88)** At an incoming R2 register situated in a transit exchange  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.471 (11/88)** At the last incoming R2 register situated in the exchange to which the called subscriber is connected  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.472 (11/88)** At the last incoming R2 register situated in a transit exchange  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.473 (11/88)** Use of end-of-pulsing signal I-15 in international working  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.474 (11/88)** Use of group B signals  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.475 (11/88)** Normal release of outgoing and incoming R2 registers  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.476 (11/88)** Abnormal release of outgoing and incoming R2 registers  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.478 (11/88)** Relay and regeneration of R2 interregister signals by an outgoing R2 register in a transit exchange  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.479 (11/88)** Echo-suppressor control – Signalling requirements  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.480 (11/88)** Miscellaneous procedures  
*Individually through the Electronic Bookshop:* 20 CHF

### *Testing and maintenance*

**Q.490 (11/88)** Testing and maintenance  
*Individually through the Electronic Bookshop:* 20 CHF

## Supplements to the Series Q.500 Recommendations

**Q.500 Series Supplement 2 (11/88)** Impedance strategy for telephone instruments and digital local exchanges in the British Telecom Network  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.500 Series Supplement 1 (11/88)** Definition of relative levels, transmission loss and attenuation/frequency distortion for digital exchanges with complex impedances at Z interfaces  
*Individually through the Electronic Bookshop:* 20 CHF  
To be published...

## Digital exchanges

### Introduction and field of application

**Q.500 (11/88)** Digital local, combined, transit and international exchanges – Introduction and field of application  
*Individually through the Electronic Bookshop:* 20 CHF

### Exchange interfaces, functions and connections

**Q.511 (11/88)** Exchange interfaces towards other exchanges  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.512 (02/95)** Digital exchange interfaces for subscriber access  
10pp E 5964 F 5963 S 5965 11 CHF

**Q.513 (03/93)** Digital exchange interfaces for operations, administration and maintenance  
4pp E 4422 F 4421 S 4423 8 CHF

**Q.521 (03/93)** Digital exchange functions  
7pp E 4425 F 4424 S 4426 11 CHF

**Q.522 (11/88)** Digital exchange connections, signalling and ancillary functions  
*Individually through the Electronic Bookshop:* 20 CHF

### Design objectives and measurement

**Q.541 (03/93)** Digital exchange design objectives – General  
6pp E 4428 F 4427 S 4429 8 CHF

**Q.542 (03/93)** Digital exchange design objectives – Operations and maintenance  
21pp E 4551 F 4550 S 4552 24 CHF

**Q.543 (03/93)** Digital exchange performance design objectives  
36pp E 4904 F 4903 S 4905 20 CHF

**Q.544 (11/88)** Digital exchange measurements  
*Individually through the Electronic Bookshop:* 20 CHF

### Transmission characteristics

**Q.551/Q.Imp551 (01/02)** Transmission characteristics of digital exchanges  
38pp E 22039 F 22040 S 22041 22 CHF

**Q.552/Q.Imp552 (11/01)** Transmission characteristics at 2-wire analogue interfaces of digital exchanges  
44pp E 21943 F 21945 S 21946 22 CHF

**Q.553/Q.Imp553 (11/01)** Transmission characteristics at 4-wire analogue interfaces of digital exchanges  
22pp E 21585 F 21586 S 21587 17 CHF

**Q.554 (11/96)** Transmission characteristics at digital interfaces of digital exchanges  
8pp E 10486 F 10487 S 10488 9 CHF

## Interworking of Signalling Systems

### General considerations

**Q.601 (03/93)** Interworking of signalling systems – General  
2pp E 4641 F 4640 S 4642 8 CHF

**Q.601 Q.695 Annex A (03/93)** Lists and meanings of FITEs, BITEs and SPITEs – Representation of information contents of signals of the signalling systems  
31pp E 4964 F 4963 S 4965 15 CHF

**Q.601 Q.695 Annex B (03/93)** Narrative presentation of interworking  
23pp E 4493 F 4492 S 4494 20 CHF

**Q.602 (03/93)** Interworking of signalling systems – Introduction  
3pp E 4620 F 4619 S 4621 8 CHF

**Q.603 (11/88)** Events  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.604 (03/93)** Interworking of signalling systems – Information analysis tables  
2pp E 4431 F 4430 S 4432 8 CHF

**Q.605 (11/88)** Drawing conventions  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.606 (11/88)** Logic procedures  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.607 (11/88)** Interworking requirements for new signalling systems  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.608 (11/88)** Miscellaneous interworking aspects  
*Individually through the Electronic Bookshop:* 20 CHF

### Logic procedures

**Q.611 (11/88)** Logic procedures for incoming signalling system No. 4  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.612 (11/88)** Logic procedures for incoming signalling system No. 5  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.613 (11/88)** Logic procedures for incoming signalling system No. 6  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.614 (03/93)** Logic procedures for incoming Signalling System No. 7 (TUP)  
 16pp E 4877 F 4876 S 4878 11 CHF

**Q.615 (11/88)** Logic procedures for incoming signalling system R1  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.616 (11/88)** Logic procedures for incoming signalling system R2  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.617 (03/93)** Logic procedures for incoming signalling system No. 7 (ISUP)  
 18pp E 4925 F 4924 S 4926 15 CHF

**Q.621 (11/88)** Logic procedures for outgoing signalling system No. 4  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.622 (11/88)** Logic procedures for outgoing signalling system No. 5  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.623 (11/88)** Logic procedures for outgoing signalling system No. 6  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.624 (03/93)** Logic procedures for outgoing Signalling System No. 7 (TUP)  
 11pp E 5003 F 5002 S 5004 11 CHF

**Q.625 (11/88)** Logic procedures for outgoing signalling system R1  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.626 (11/88)** Logic procedures for outgoing signalling system R2  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.627 (03/93)** Logic procedures for outgoing Signalling System No. 7 (ISUP)  
 10pp E 4832 F 4831 S 4833 11 CHF

**Q.634 (11/88)** Logic procedures for interworking of signalling system No. 4 to R2  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.642 (11/88)** Logic procedures for interworking of signalling system No. 5 to No. 6  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.643 (11/88)** Logic procedures for interworking of signalling system No. 5 to No. 7 (TUP)  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.644 (11/88)** Logic procedures for interworking of signalling system No. 5 to R1  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.645 (11/88)** Logic procedures for interworking of signalling system No. 5 to R2  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.646 (03/93)** Logic procedures for interworking of Signalling System No. 5 to Signalling System No. 7 (ISUP)  
 7pp E 4515 F 4514 S 4516 8 CHF

**Q.652 (11/88)** Logic procedures for interworking of signalling system No. 6 to No. 5  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.653 (11/88)** Logic procedures for interworking of signalling system No. 6 to No. 7 (TUP)  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.654 (11/88)** Logic procedures for interworking of signalling system No. 6 to R1  
*Individually through the Electronic Bookshop:* 20 CHF

**Q.655 (11/88)** Logic procedures for interworking of signalling system No. 6 to R2

*Individually through the Electronic Bookshop:* 20 CHF

**Q.656 (03/93)** Logic procedures for interworking of Signalling System No. 6 to Signalling System No. 7 (ISUP)

10pp E 4533 F 4532 S 4534 11 CHF

**Q.662 (11/88)** Logic procedures for interworking of signalling system No. 7 (TUP) to No. 5

*Individually through the Electronic Bookshop:* 20 CHF

**Q.663 (11/88)** Logic procedures for interworking of signalling system No. 7 (TUP) to No. 6

*Individually through the Electronic Bookshop:* 20 CHF

**Q.664 (11/88)** Logic procedures for interworking of signalling system No. 7 (TUP) to No. 7 (TUP)

*Individually through the Electronic Bookshop:* 20 CHF

**Q.665 (11/88)** Logic procedures for interworking of signalling system No. 7 (TUP) to R1

*Individually through the Electronic Bookshop:* 20 CHF

**Q.666 (11/88)** Logic procedures for interworking of signalling system No. 7 (TUP) to R2

*Individually through the Electronic Bookshop:* 20 CHF

**Q.667 (03/93)** Logic procedures for interworking of Signalling System No. 7 (TUP) to Signalling System No. 7 (ISUP)

8pp E 4602 F 4601 S 4603 8 CHF

**Q.671 (11/88)** Logic procedures for interworking of signalling system R1 to No. 5

*Individually through the Electronic Bookshop:* 20 CHF

**Q.672 (11/88)** Logic procedures for interworking of signalling system R1 to No. 6

*Individually through the Electronic Bookshop:* 20 CHF

**Q.673 (11/88)** Logic procedures for interworking of signalling system R1 to No. 7 (TUP)

*Individually through the Electronic Bookshop:* 20 CHF

**Q.674 (11/88)** Logic procedures for interworking of signalling system R1 to R2

*Individually through the Electronic Bookshop:* 20 CHF

**Q.675 (03/93)** Logic procedures for interworking of Signalling System R1 to Signalling System No. 7 (ISUP)

7pp E 4931 F 4930 S 4932 8 CHF

**Q.681 (11/88)** Logic procedures for interworking of signalling system R2 to No. 4

*Individually through the Electronic Bookshop:* 20 CHF

**Q.682 (11/88)** Logic procedures for interworking of signalling system R2 to No. 5

*Individually through the Electronic Bookshop:* 20 CHF

**Q.683 (11/88)** Logic procedures for interworking of signalling system R2 to No. 6

*Individually through the Electronic Bookshop:* 20 CHF

**Q.684 (11/88)** Logic procedures for interworking of signalling system R2 to No. 7 (TUP)

*Individually through the Electronic Bookshop:* 20 CHF

**Q.685 (11/88)** Logic procedures for interworking of signalling system R2 to R1

*Individually through the Electronic Bookshop:* 20 CHF

**Q.686 (03/93)** Logic procedures for interworking of Signalling System R2 to Signalling System No. 7 (ISUP)

7pp E 4683 F 4682 S 4684 11 CHF

**Q.690 (03/93)** Logic procedures for interworking of Signalling System No. 7 (ISUP) to No. 5

8pp E 4554 F 4553 S 4555 8 CHF

**Q.691 (03/93)** Logic procedures for interworking of Signalling System No. 7 (ISUP) to No. 6

6pp E 4635 F 4634 S 4636 8 CHF

**Q.692 (03/93)** Logic procedures for interworking of Signalling System No. 7 (ISUP) to No. 7 (TUP)

6pp E 4557 F 4556 S 4558 8 CHF

**Q.694 (03/93)** Logic procedures for interworking of signalling system No. 7 (ISUP) to R1

6pp      E 4525      F 4524      S 4526      8 CHF

**Q.695 (03/93)** Logic procedures for interworking of Signalling System No. 7 (ISUP) to R2

8pp      E 4485      F 4484      S 4486      38 CHF

**Q.696 (06/97)** Interworking between the Signalling System No. 7 ISDN User Part (ISUP) and Signalling Systems No. 5, R2 and Signalling System No. 7 TUP

48pp      E 12308      F 12309      S 12310      22 CHF

### *Interworking of Signalling Systems No. 7 and No. 6*

**Q.698 (03/93)** Interworking of Signalling System No. 7 ISUP, TUP and Signalling System No. 6 using arrow diagrams

50pp      E 5029      F 5028      S 5030      24 CHF

### *Interworking between Digital Subscriber Signalling System No. 1 and Signalling System No. 7*

**Q.699 (09/97)** Interworking between ISDN access and non-ISDN access over ISDN User Part of Signalling System No. 7

144pp      E 13012      F 13013      S 13014      55 CHF

**Q.699 Addendum 1 (12/99)** DSS1-SS7 interworking for call completion on no reply

12pp      E 18036      F 18037      S 18038      12 CHF

**Q.699.1 (05/98)** Interworking between ISDN access and non-ISDN access over ISDN user part of Signalling System No. 7: Support of VPN applications with PSS1 information flows

28pp      E 14101      F 14102      S 14103      17 CHF

## **Specifications of Signalling System No. 7**

### *General*

**Q.700 (03/93)** Introduction to CCITT Signalling System No. 7

20pp      E 4434      F 4433      S 4435      15 CHF

### *Message transfer part (MTP)*

**Q.701 (03/93)** Functional description of the message transfer part (MTP) of Signalling System No. 7

20pp      E 4377      F 4376      S 4378      15 CHF

**Q.702 (11/88)** Signalling data link

*Individually through the Electronic Bookshop:* 20 CHF

**Q.703 (07/96)** Signalling link

92pp      E 10442      F 10443      S 10444      39 CHF

**Q.704 (07/96)** Signalling network functions and messages

*Covering note, 17.09.99: Erratum (english only)*

216pp      E 10627      F 10628      S 10629      96 CHF

**Q.705 (03/93)** Signalling network structure

23pp      E 4437      F 4436      S 4438      15 CHF

**Q.706 (03/93)** Message transfer part signalling performance

36pp      E 4506      F 4505      S 4507      20 CHF

**Q.707 (11/88)** Testing and maintenance

*Individually through the Electronic Bookshop:* 20 CHF

**Q.708 (03/99)** Assignment procedures for international signalling point codes

16pp      E 16499      F 16500      S 16501      12 CHF

**Q.709 (03/93)** Hypothetical signalling reference connection

14pp      E 4404      F 4403      S 4405      11 CHF

**Q.710 (11/88)** Simplified MTP version for small systems

*Individually through the Electronic Bookshop:* 20 CHF

### *Signalling connection control part (SCCP)*

**Q.711 (03/01)** Functional description of the signalling connection control part

34pp      E 20733      F 20734      S 20735      22 CHF

**Q.712 (07/96)** Definition and function of signalling connection control part messages

16pp      E 10724      F 10725      S 10726      12 CHF

**Q.713 (03/01)** Signalling connection control part formats and codes

50pp      E 20870      F 20871      S 20872      22 CHF

**Q.714 (05/01)** Signalling connection control part procedures

176pp      E 21636      F 21637      S 21638      73 CHF



- Q.715 (04/02)** Signalling connection control part user guide  
61pp E 22909 F 22910 S 22911 29 CHF
- Q.716 (03/93)** Signalling System No. 7 – Signalling connection control part (SCCP) performance  
10pp E 4560 F 4559 S 4561 11 CHF

### Telephone user part (TUP)

- Q.721 (11/88)** Functional description of the Signalling System No. 7 Telephone User Part (TUP)  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.722 (11/88)** General function of telephone messages and signals  
*Individually through the Electronic Bookshop:* 20 CHF
- Q.723 (1988) Amendment 1 (03/93)** Amendment 1 to ITU-T Q.723 (1988)
- Q.723 (11/88)** Telephone user part formats and codes  
*A Corrigendum was indicated in 03/1993.*  
*Individually through the Electronic Bookshop:* 22 CHF
- Q.724 (1988) Amendment 1 (03/93)** Amendment 1 to ITU-T Q.724 (1988)
- Q.724 (11/88)** Telephone user part signalling procedures  
*Individually through the Electronic Bookshop:* 34 CHF
- Q.725 (03/93)** Signalling performance in the telephone application  
8pp E 4719 F 4718 S 4720 11 CHF

### ISDN supplementary services

- Q.730 (12/99)** ISDN user part supplementary services  
44pp E 17815 F 17816 S 17817 22 CHF
- Q.731 Stage 3 description for number identification supplementary services using Signalling System No. 7*
- Q.731.1 (07/96)** Direct-dialling-In (DDI)  
12pp E 9631 F 9632 S 9633 12 CHF
- Q.731.3 (03/93)** Calling line identification presentation (CLIP)  
13pp E 4410 F 4409 S 4411 20 CHF
- Q.731.4 (03/93)** Calling line identification restriction (CLIR)  
4pp E 4410 F 4409 S 4411 20 CHF
- Q.731.5 (03/93)** Connected line identification presentation (COLP)  
16pp E 4410 F 4409 S 4411 20 CHF

- Q.731.6 (03/93)** Connected line identification restriction (COLR)  
6pp E 4410 F 4409 S 4411 20 CHF

- Q.731.7 (06/97)** Malicious call identification (MCID)  
12pp E 12132 F 12133 S 12134 12 CHF

- Q.731.8 (02/92)** Sub-addressing (SUB)  
*Published with ITU-T Q.731.1.*  
4pp E 2612 F 2642 S 2673 11 CHF

### Q.732 Stage 3 description for call offering supplementary services using Signalling System No. 7

- Q.732.2-5 (12/99)** Stage 3 description for call offering supplementary services using Signalling System No. 7 : Call diversion services  
*Call diversion Recommendation groups four services the stage 3 descriptions of which are similar:*  
*Q.732.2 – Call Forwarding Busy (CFB)*  
*Q.732.3 – Call Forwarding No Reply (CFNR)*  
*Q.732.4 – Call Forwarding Unconditional (CFU)*  
*Q.732.5 – Call Deflection (CD).*  
40pp E 17877 F 17878 S 17879 22 CHF
- Q.732.2-5 (1999) Amendment 1 (07/01)** Stage 3 description for call offering supplementary services using Signalling System No. 7: Call diversion services  
8pp E 21564 F 21565 S 21566 9 CHF
- Q.732.7 (07/96)** Explicit Call Transfer  
28pp E 10651 F 10652 S 10653 17 CHF

### Q.733 Stage 3 description for call completion supplementary services using Signalling System No. 7

- Q.733.1 (02/92)** Call waiting (CW)  
9pp E 2614 F 2644 S 2675 11 CHF
- Q.733.2 (03/93)** Call hold (HOLD)  
*Published with ITU-T Q.733.4.*  
7pp E 4446 F 4445 S 4447 11 CHF
- Q.733.3 (06/97)** Completion of calls to busy subscriber (CCBS)  
40pp E 12355 F 12356 S 12357 22 CHF
- Q.733.3 (1997) Amendment 1 (07/01)** Stage 3 description for call completion supplementary services using Signalling System No. 7: Completion of calls to busy subscriber (CCBS)  
9pp E 21770 F 21771 S 21772 9 CHF

**Q.733.4 (03/93)** Terminal portability (TP)  
*Published with ITU-T Q.733.2.*  
 7pp E 4446 F 4445 S 4447 11 CHF

**Q.733.5 (12/99)** Completion of calls on no reply  
 40pp E 18027 F 18028 S 18029 22 CHF

*Q.734 Stage 3 description for multiparty supplementary services using Signalling System No. 7*

**Q.734.1 (03/93)** Conference calling  
*Published with ITU-T Q.734.2.*  
*Covering note, June 1999: Information note*  
 22pp E 4449 F 4448 S 4450 15 CHF

**Q.734.2 (07/96)** Three-party service  
 20pp E 10639 F 10640 S 10641 17 CHF

*Q.735 Stage 3 description for community of interest supplementary services using Signalling System No. 7*

**Q.735.1 (03/93)** Closed user group (CUG)  
 23pp E 4536 F 4535 S 4537 29 CHF

**Q.735.3 (03/93)** Multi-level precedence and preemption  
 44pp E 4536 F 4535 S 4537 29 CHF

**Q.735.6 (07/96)** Global Virtual Network Service (GVNS)  
 24pp E 10691 F 10692 S 10693 17 CHF

*Q.736 Stage 3 description for charging supplementary services using Signalling System No. 7*

**Q.736.1 (10/95)** International Telecommunication Charge Card (ITCC)  
 20pp E 6760 F 6761 S 6762 17 CHF

**Q.736.3 (10/95)** Reverse charging (REV)  
 36pp E 6691 F 6692 S 6693 20 CHF

*Q.737 Stage 3 description for additional information transfer supplementary services using Signalling System No. 7*

**Q.737.1 (06/97)** User-to-user signalling (UUS)  
 40pp E 12349 F 12350 S 12351 22 CHF

## Data user part

**Q.741 (11/88)** Signalling System No. 7 – Data user part  
*This Recommendation is published under alias number X.61*

## Signalling System No. 7 management

**Q.750 (06/97)** Overview of Signalling System No. 7 management  
 24pp E 12220 F 12221 S 12222 17 CHF

**Q.751.1 (10/95)** Network element management information model for the Message Transfer Part (MTP)  
 152pp E 7117 F 7118 S 7119 61 CHF

**Q.751.2 (06/97)** Network element management information model for the Signalling Connection Control Part  
 100pp E 12385 F 12386 S 12387 44 CHF

**Q.751.3 (09/97)** Network element information model for MTP accounting  
 32pp E 12559 F 12560 S 12561 17 CHF

**Q.751.4 (05/98)** Network element information model for SCCP accounting and accounting verification  
 20pp E 13769 F 13770 S 13771 17 CHF

**Q.752 (06/97)** Monitoring and measurements for Signalling System No. 7 networks  
 56pp E 11942 F 11943 S 11944 29 CHF

**Q.753 (06/97)** Signalling System No. 7 management functions MRVT, SRVT and CVT and definition of the OMASE-user  
 64pp E 11979 F 11980 S 11981 29 CHF

**Q.754 (06/97)** Signalling System No. 7 management Application Service Element (ASE) definitions  
 48pp E 11991 F 11992 S 11993 22 CHF

**Q.755 (03/93)** Signalling System No. 7 protocol tests  
 10pp E 4638 F 4637 S 4639 11 CHF

**Q.755.1 (05/98)** MTP Protocol Tester  
 44pp E 13724 F 13725 S 13726 22 CHF

**Q.755.2 (09/97)** Transaction capabilities test responder  
 24pp E 12496 F 12497 S 12498 17 CHF

**Q.756 (06/97)** Guidebook to Operations, Maintenance and Administration Part (OMAP)  
 16pp E 11935 F 11936 S 11937 12 CHF

## ISDN user part

**Q.761 (12/99)** Signalling System No. 7 – ISDN User Part functional description  
20pp E 17663 F 17664 S 17665 17 CHF

**Q.761 (1999) Amendment 1 (07/01)** Specifications of Signalling System No. 7 – ISDN user part functional description  
8pp E 21567 F 21568 S 21569 9 CHF

**Q.761 (1999) Amendment 2 (12/02)** Support for the International Emergency Preference Scheme  
10pp E 23790 F 23791 S 23792 9 CHF

**Q.762 (12/99)** Signalling System No. 7 – ISDN User Part general functions of messages and signals  
28pp E 19117 F 19118 S 19119 17 CHF

**Q.762 Addendum 1 (06/00)** Addendum 1  
4pp E 19721 F 19722 S 19723 9 CHF

**Q.762 (1999) Amendment 1 (12/02)** Support for the International Emergency Preference Scheme  
7pp E 23767 F 23768 S 23769 9 CHF

**Q.763 (12/99)** Signalling System No. 7 – ISDN User Part formats and codes  
134pp E 19698 F 19699 S 19700 55 CHF

**Q.763 (1999) Amendment 1 (03/01)** Analytical method to calculate short-term visibility and interference statistics for non-geostationary satellite orbit satellites as seen from a point on the Earth's surface  
12pp E 20797 F 20798 S 20799 12 CHF

**Q.763 (1999) Amendment 2 (12/02)** Support for the International Emergency Preference Scheme  
7pp E 23745 F 23746 S 23747 9 CHF

**Q.763 (1999) Amendment 3 (04/04)**  
12pp E 25499 9 CHF

**Q.763 (1999) Corrigendum 1 (07/01)**

**Q.764 (12/99)** Signalling System No. 7 – ISDN User Part signalling procedures  
108pp E 19701 F 19702 S 19703 44 CHF

**Q.764 (1999) Amendment 1 (07/01)** Amendment 1  
16pp E 21721 F 21722 S 21723 12 CHF

**Q.764 (1999) Amendment 2 (12/02)** Support for the International Emergency Preference Scheme  
10pp E 23770 F 23771 S 23772 9 CHF

**Q.764 (1999) Amendment 3 (04/04)**  
11pp E 25502 9 CHF

**Q.765 bis (12/99)** Signalling system No. 7 – Application Transport Mechanism: Test Suite Structure and Test Purposes (TSS & TP)  
32pp E 18114 F 18115 S 18116 17 CHF

**Q.765 (06/00)** Signalling system No. 7 – Application transport mechanism  
40pp E 19611 F 19612 S 19613 22 CHF

**Q.765.1 (05/98)** Signalling System No. 7 – Application transport mechanism: Support of VPN applications with PSS1 information flows  
56pp E 14421 F 14422 S 14423 29 CHF

**Q.765.1 bis (12/99)** Abstract test suite for the APM support of VPN applications

*This Recommendation includes an electronic attachment containing the ATS for ISUP'97 for APM support of VPN in machine processable form and in pdf form*

28pp E 19580 F 19581 S 19582 67 CHF

**Q.765.1 bis (1999) Amendment 1 (12/00)** Amendment : Abstract test suite for the APM support of VPN applications  
16pp E 21507 12 CHF

**Q.765.4 (06/00)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's  
44pp E 19934 F 19935 S 19936 22 CHF

**Q.765.5 (06/00)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's  
28pp E 20064 F 20065 S 20066 17 CHF

**Q.765.5 (2000) Amendment 1 (07/01)** Bearer Independent Call Control Capability Set 2  
20pp E 21818 F 21819 S 21820 12 CHF

**Q.766 (03/93)** Performance objectives in the integrated services digital network application  
4pp E 4853 F 4852 S 4854 8 CHF

**Q.767 (02/91)** Application of the ISDN user part of CCITT signalling system No. 7 for international ISDN interconnections  
271pp E 2334 F 2312 S 2356 65 CHF

**Q.767 (1991) Amendment 1 (12/02)**  
8pp E 23780 F 23783 S 23784 9 CHF

**Q.768 (10/95)** Signalling interface between an international switching centre and an ISDN satellite subnetwork

52pp E 7006 F 7007 S 7008 29 CHF

**Q.769.1 (12/99)** Signalling system No. 7 – ISDN user part enhancements for the support of number portability

20pp E 17788 F 17789 S 17787 17 CHF

### *Transaction capabilities application part*

**Q.771 (06/97)** Functional description of transaction capabilities

36pp E 12403 F 12404 S 12405 22 CHF

**Q.772 (06/97)** Transaction capabilities information element definitions

12pp E 12321 F 12322 S 12323 12 CHF

**Q.773 (06/97)** Transaction capabilities formats and encoding

36pp E 12406 F 12407 S 12408 22 CHF

**Q.774 (06/97)** Transaction capabilities procedures

64pp E 12388 F 12389 S 12390 29 CHF

**Q.775 (06/97)** Guidelines for using transaction capabilities

64pp E 11938 F 11939 S 11940 29 CHF

### *Test specification*

**Q.780 (10/95)** Signalling System No. 7 test specification – General description

16pp E 6914 F 6915 S 6916 15 CHF

**Q.781 (04/02)** MTP level 2 test specification

110pp E 22514 F 22515 S 22516 44 CHF

**Q.782 (04/02)** MTP level 3 test specification

152pp E 22584 F 22585 S 22586 61 CHF

**Q.783 (11/88)** TUP test specification

*Individually through the Electronic Bookshop:* 39 CHF

### *Q.784 ISUP basic call test specification*

**Q.784 Annex A (03/93)** TTCN version of Recommendation Q.784

135pp E 5165 F 5223 S 5258 47 CHF

**Q.784.1 (07/96)** Validation and compatibility for ISUP'92 and Q.767 protocols

144pp E 10592 F 10593 S 10594 55 CHF

### **Q.784.1 (1996) Corrigendum 1 (12/99)**

**Q.784.2 (06/97)** Abstract test suite for ISUP'92 basic call control procedures

*This Recommendation includes one diskette containing Annex D ISUP'92 ATS for basic call in graphical and in machine processable form.*

96pp E 13023 F 13029 S 13030 79 CHF

**Q.784.3 (12/99)** ISUP'97 basic call control procedures – Test suite structure and test purposes (TSS & TP)

*This Recommendation includes an electronic attachment containing the ATS for ISUP'97 basic call control procedures in machine processable form and in pdf form*

92pp E 19534 F 19535 S 19536 89 CHF

**Q.784.3 (1999) Amendment 1 (12/00)**  
Amendment 1

26pp E 21515 17 CHF

**Q.785 (09/91)** ISUP protocol test specification for supplementary services

49pp E 2346 F 2324 S 2368 21 CHF

**Q.785.2 (03/99)** ISUP'97 supplementary services – Test suite structure and test purposes (TSS & TP)

*This Recommendation includes one CD-ROM containing the ISUP'97 ATS for supplementary services in machine processable form and in graphical form.*

332pp E 17285 F 17286 S 17287 249 CHF

**Q.785.2 (1999) Amendment 1 (12/00)** Amendment 1: New Appendix I – Additional test configuration for ISUP'97 supplementary services

E 21588 F 21589 S 21590 62 CHF

**Q.785.2 Erratum 1 (02/02)** Erratum to Recommendation ITU-T Q.785.2 (03/1999)

*This Erratum includes an electronic attachment containing the ISUP'97 ATS for Supplementary Services version 12/1999*

**Q.786 (03/93)** SCCP test specification

50pp E 4296 F 4295 S 4297 24 CHF

**Q.787 (09/97)** Transaction Capabilities (TC) test specification

320pp E 13116 F 13117 S 13118 124 CHF

**Q.788 (06/97)** User-network-interface to user-network-interface compatibility test specifications for ISDN, non-ISDN and undetermined accesses interworking over international ISUP

240pp E 12245 F 12246 S 12247 96 CHF

**Q.795 (11/88) Withdrawn (03/93)**

Operations, Maintenance and Administration Part (OMAP)

*The content of this Recommendation is now covered by ITU-T Q.75x series*

*Individually through the Electronic Bookshop:*

**Q3 interface**

**Q.811 (06/97)** Lower layer protocol profiles for the Q3 and X interfaces

56pp E 11958 F 11959 S 11960 29 CHF

**Q3 interface**

**Q3 interface**

**Q.811 (02/04)** Lower layer protocol profiles for the Q and X interfaces

To be published...

**Specifications of Signalling System No. 7**

**Q.812 (06/97)** Upper layer protocol profiles for the Q3 and X interfaces

24pp E 11961 F 11962 S 11963 17 CHF

**Q3 interface**

**Q3 interface**

**Q.812 (02/04)** Upper layer protocol profiles for the Q and X interfaces

To be published...

**Specifications of Signalling System No. 7**

**Q.812 (1997) Amendment 1 (03/99)** Additional X interface protocols for the service management layer (SML)

8pp E 15892 F 15893 S 15894 9 CHF

**Q.812 Appendix I (03/99)** Guidance on using allomorphic management

24pp E 15757 F 15758 S 15759 17 CHF

**Q.813 (06/98)** Security Transformations Application Service Element for Remote Operations Service Element (STASE-ROSE)

68pp E 14465 F 14466 S 14467 34 CHF

**Q.814 (02/00)** Specification of an electronic data interchange interactive agent

24pp E 19182 F 19183 S 19184 17 CHF

**Q.815 (02/00)** Specification of a security model for whole message protection

20pp E 19191 F 19192 S 19193 17 CHF

**Q.816 (01/01)** CORBA-based TMN services

80pp E 20532 F 20533 S 20534 34 CHF

**Q.816 (2001) Amendment 1 (08/01)** OMG services profile

16pp E 21570 F 21571 S 21572 12 CHF

**Q.816 (2001) Amendment 2 (05/02)** User guide for local name resolution

9pp E 22455 F 22456 S 22457 9 CHF

**Q.816 (2001) Corrigendum 1 (08/01)**

**Q3 interface**

**Q3 interface**

**Q.816 (2001) Corrigendum 2 (08/02)**

**Specifications of Signalling System No. 7**

**Q3 interface**

**Q.816.1 (08/01)** CORBA based TMN services: Extensions to support coarse-grained interfaces

36pp E 21895 F 21896 S 21897 17 CHF

**Q.817 (01/01)** TMN PKI – Digital certificates and certificate revocation lists profiles

18pp E 20443 F 20444 S 20445 12 CHF



**Q.821 (02/00)** Stage 2 and Stage 3 description for the Q3 interface – Alarm Surveillance

84pp E 20084 F 20085 S 20086 34 CHF

**Q.821.1 (09/01)** CORBA-based TMN alarm surveillance service

100pp E 21736 F 21737 S 21738 39 CHF

**Q.822 (04/94)** Stage 1, stage 2 and stage 3 description for the Q3 interface – Performance management

47pp E 5308 F 5295 S 5318 24 CHF

## Q3 interface

### Q3 interface

**Q.822 (1994) Amendment 1 (03/03)** Generic transport performance management

13pp E 23821 F 23822 S 23824 12 CHF

### Specifications of Signalling System No. 7

**Q.822.1 (10/01)** CORBA-based TMN performance management service

52pp E 22224 F 22225 S 22226 22 CHF

**Q.822.1 (2001) Amendment 1 (03/03)** Generic transport performance management

22pp E 23994 F 23995 S 23996 17 CHF

**Q.823 (07/96)** Stage 2 and Stage 3 functional specifications for traffic management

112pp E 10522 F 10523 S 10524 44 CHF

**Q.823.1 (10/97)** Management Conformance Statement Proformas

292pp E 12525 F 12526 S 12527 96 CHF

*Q.824 Stages 2 and 3 description for the Q3 interface – Customer administration*

**Q.824.0 (10/95)** Common information

52pp E 6763 F 6764 S 6765 29 CHF

**Q.824.1 (10/95)** Integrated Services Digital Network (ISDN) basic and primary rate access

72pp E 6782 F 6783 S 6784 34 CHF

**Q.824.2 (10/95)** Integrated Services Digital Network (ISDN) supplementary services

32pp E 6704 F 6705 S 6706 15 CHF

**Q.824.3 (10/95)** Integrated Services Digital Network (ISDN) optional user facilities

16pp E 6754 F 6755 S 6756 12 CHF

**Q.824.4 (10/95)** Integrated Services Digital Network (ISDN) teleservices

12pp E 6515 F 6516 S 6517 11 CHF

**Q.824.5 (10/97)** Configuration management of V5 interface environments and associated customer profiles

112pp E 12562 F 12563 S 12564 44 CHF

**Q.824.5 (1997) Corrigendum 1 (02/00)**

**Q.824.6 (06/98)** Broadband switch management

124pp E 14311 F 14312 S 14313 49 CHF

**Q.824.7 (02/00)** Enhanced Broadband Switch

32pp E 19875 F 19876 S 19877 17 CHF

**Q.825 (06/98)** Specification of TMN applications at the Q3 interface: Call detail recording

88pp E 14214 F 14215 S 14216 39 CHF

**Q.826 (02/00)** Stage 2 and Stage 3 Functional Specification of Call Routing Information Management on Operation System/Network Element (OS/NE) Interface

144pp E 19915 F 19916 S 19917 55 CHF

**Q.831 (10/97)** Fault and performance management of V5 interface environments and associated customer profiles

52pp E 12478 F 12479 S 12480 29 CHF

**Q.831 (1997) Corrigendum 1 (03/01)**

**Q.831.1 (02/00)** Access Management for V5

56pp E 19801 F 19802 S 19803 29 CHF

**Q.832.1 (06/98)** VB5.1 Management

52pp E 14146 F 14147 S 14148 29 CHF

**Q.832.1 (1998) Corrigendum 1 (03/01)**

**Q.832.2 (03/99)** VB5.2 Management

40pp E 15898 F 15899 S 15900 22 CHF

**Q.832.3 (01/01)** Broadband access coordination

60pp E 20717 F 20718 S 20719 29 CHF

**Q.833.1 (01/01)** Asymmetric digital subscriber line (ADSL) – Network element management: CMIP model

52pp E 21404 F 21405 S 21406 22 CHF

**Q.834.1 (04/01)** ATM-PON requirements and managed entities for the network element view

144pp E 21656 F 21657 S 21658 55 CHF



**Q.834.2 (04/01)** ATM PON requirements and managed entities for the network view

58pp E 20714 F 20715 S 20716 29 CHF

**Q.834.3 (11/01)** A UML description for management interface requirements for broadband Passive Optical Networks

170pp E 22545 F 22546 S 22547 73 CHF

**Q.834.4 (07/03)** A CORBA interface specification for Broadband Passive Optical Networks based on UML interface requirements

194pp E 24910 73 CHF

## Q3 interface

### Q3 interface

**Q.834.4 (2003) Amendment 1 (01/04)**

To be published...

**Q.834.4 (2003) Corrigendum 1 (01/04)**

To be published...

## Specifications of Signalling System No. 7

**Q.835 (03/99)** Line and line circuit test management of ISDN and analogue customer accesses

76pp E 16164 F 16166 S 16167 34 CHF

**Q.835 (1999) Corrigendum 1 (03/01)**

*Corrigendum 1 to Recommendation Q.835*

**Q.836.1 (02/00)** SSF management information model

68pp E 19162 F 19166 S 19168 29 CHF

## Q3 interface

### Q3 interface

**Q.837.1 (02/04)** SDH-DLC functional requirements for the network and network element views

26pp E 25545 17 CHF

## Digital subscriber Signalling System No. 1

### General

**Q.850 (05/98)** Usage of cause and location in the Digital Subscriber Signalling System No. 1 and the Signalling System No. 7 ISDN User Part

32pp E 14218 F 14219 S 14220 17 CHF

**Q.850 Addendum 1 (06/00)** Addendum 1

4pp E 19704 F 19705 S 19706 9 CHF

### General

**Q.850 (1998) Amendment 1 (07/01)** Usage of cause and location in the Digital Subscriber Signalling System No. 1 (DSS1) and the Signalling System No. 7 ISDN user part (ISUP)

8pp E 21579 F 21580 S 21581 9 CHF

### General

**Q.860 (06/00)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's

36pp E 20009 F 20010 S 20011 17 CHF

### Data link layer

**Q.920 (03/93)** ISDN user-network interface data link layer – General aspects

*This Recommendation is also included but not published in I series under alias number I.440*

20pp E 4353 F 4352 S 4354 15 CHF

**Q.920 (1993) Amendment 1 (06/00)**

10pp E 19680 F 19681 S 19682 9 CHF

**Q.921 bis (03/93)** Abstract test suite for LAPD conformance testing

*This Recommendation includes 5 diskettes containing postscript files of ATS for testing conformance of basic rate user side equipment to Rec. Q.921.*

10pp E 10162 F 10163 S 10164 111 CHF

**Q.921 (09/97)** ISDN user-network interface – Data link layer specification

*This Recommendation is also included but not published in I series under alias number I.441.*

268pp E 13327 F 13328 S 13329 96 CHF

**Q.921 (1997) Amendment 1 (06/00)**

16pp E 19524 F 19525 S 19526 12 CHF

**Q.922 (02/92)** ISDN data link layer specification for frame mode bearer services

109pp E 2808 F 2770 S 2843 38 CHF

**Q.923 (02/95)** Specification of a synchronization and coordination function for the provision of the OSI connection-mode network service in an ISDN environment

28pp E 6033 F 6032 S 6034 15 CHF

## Network layer

### Q.930 (03/93) ISDN user-network interface layer 3 – General aspects

*This Recommendation is also included but not published in I series under alias number I.450*

3pp E 4997 F 4996 S 4998 8 CHF

### Q.931 (05/98) ISDN user-network interface layer 3 specification for basic call control

*This Recommendation is also included but not published in I series under alias number I.451*

344pp E 15605 F 15606 S 15607 124 CHF

### Q.931 (1998) Amendment 1 (12/02) Extensions for the support of digital multiplexing equipment

24pp E 23874 F 23875 S 23876 17 CHF

### Q.931 (1998) Erratum 1 (02/03)

### Q.932 (05/98) Digital subscriber signalling system No. 1 – Generic procedures for the control of ISDN supplementary services

*This Recommendation is also included but not published in I series under alias number I.452.*

124pp E 14512 F 14513 S 14514 49 CHF

### Q.932 (1998) Amendment 1 (06/00)

24pp E 19590 F 19591 S 19592 17 CHF

### Q.933 bis (10/95) Abstract test suite – Signalling specification for frame mode basic call control conformance testing for permanent virtual connections (PVCs)

*This Recommendation includes one diskette containing Abstract test suites Section II corresponding to additional procedures for PVCs as per ITU-T Q.933 Annex A.*

8pp E 13374 F 13377 S 13378 49 CHF

## Q3 interface

## Q3 interface

### Q.933 (02/03) Digital Subscriber Signalling System No. 1 (DSS 1) – Signalling specifications for frame mode switched and permanent virtual connection control and status monitoring

44pp E 24051 F 24052 S 24053 22 CHF

## Digital subscriber Signalling System No. 1

### Q.939 (03/93) Typical DSS 1 service indicator codings for ISDN telecommunications services

49pp E 5017 F 5016 S 5018 24 CHF

## User-network management

### Q.940 (11/88) ISDN user-network interface protocol for management – General aspects

*Individually through the Electronic Bookshop:* 20 CHF

### Q.941 (03/93) ISDN user-network interface protocol profile for management

9pp E 4458 F 4457 S 4459 11 CHF

## Stage 3 description for supplementary services using DSSI

### Q.950 (06/00) Supplementary services protocols, structure and general principles

28pp E 19596 F 19597 S 19598 17 CHF

### Q.951 Stage 3 description for number identification supplementary services using DSS 1

### Q.951.1 (02/92) Direct-dialling-in (DDI)

*Q.951 parts 1, 2 and 8 published together*

4pp E 2613 F 2643 S 2674 11 CHF

### Q.951.2 (02/92) Multiple subscriber number (MSN)

*Q.951 parts 1, 2 and 8 published together*

5pp E 2613 F 2643 S 2674 11 CHF

### Q.951.3 (03/93) Calling line identification presentation

*Q.951 parts 3-6 published together*

13pp E 5026 F 5025 S 5027 20 CHF

### Q.951.4 (03/93) Calling line identification restriction

*Q.951 parts 3-6 published together*

6pp E 5026 F 5025 S 5027 20 CHF

### Q.951.5 (03/93) Connected line identification presentation

*Q.951 parts 3-6 published together*

14pp E 5026 F 5025 S 5027 20 CHF

### Q.951.6 (03/93) Connected line identification restriction

*Q.951 parts 3-6 published together*

6pp E 5026 F 5025 S 5027 20 CHF

### Q.951.7 (06/97) Malicious Call Identification (MCID)

16pp E 11919 F 11920 S 11921 12 CHF

### Q.951.8 (02/92) Sub-addressing (SUB)

*Q.951 parts 1, 2 and 8 published together*

5pp E 2613 F 2643 S 2674 11 CHF

**Q.952 (03/93)** Stage 3 description for call offering supplementary services using DSS 1 – Diversion supplementary services

66pp E 5092 F 5091 S 5093 29 CHF

**Q.952.7 (06/97)** Stage 3 description for call offering supplementary services using DSS 1 – Explicit Call Transfer (ECT)

52pp E 11967 F 11968 S 11969 29 CHF

*Q.953 ISDN stage 3 description for call completion supplementary services using DSS 1*

**Q.953.1 (02/92)** Call waiting

11pp E 2616 F 2647 S 2678 11 CHF

**Q.953.2 (03/93)** Call hold

17pp E 4934 F 4933 S 4935 15 CHF

**Q.953.3 (06/97)** Completion of Calls to Busy Subscribers (CCBS)

104pp E 12409 F 12410 S 12411 44 CHF

**Q.953.4 (10/95)** Terminal Portability (TP)

12pp E 6904 F 6906 S 6905 12 CHF

**Q.953.5 (12/99)** Call Completion on No Reply (CCNR)

*This Recommendation includes one diskette containing the SDL process diagrams of DSS1 CCNR in machine processable form and in graphical form.*

88pp E 17711 F 17712 S 17713 79 CHF

*Q.954 Stage 3 description for multiparty supplementary services using DSS 1*

**Q.954.1 (03/93)** Conference calling

*Covering note, June 1999: Information note*

43pp E 5065 F 5064 S 5066 24 CHF

**Q.954.2 (10/95)** Three-party (3PTY)

36pp E 7120 F 7121 S 7122 22 CHF

*Q.955 Stage 3 description for community of interest supplementary services using DSS 1*

**Q.955.1 (02/92)** Stage 3 description for community of interest supplementary services using DSS 1: Closed user group

21pp E 2619 F 2650 S 2681 17 CHF

**Q.955.3 (03/93)** Multi-level precedence and preemption (MLPP)

59pp E 5080 F 5079 S 5081 24 CHF

*Q.956 Stage 3 description for charging supplementary services using DSS 1*

**Q.956.2 (10/95)** Advice of charge

52pp E 6688 F 6689 S 6690 25 CHF

**Q.956.3 (10/95)** Reverse charging

36pp E 6506 F 6507 S 6508 20 CHF

*Q.957 Stage 3 description for additional information transfer supplementary services using DSS 1*

**Q.957.1 (07/96)** User-to-User Signalling (UUS)

36pp E 10730 F 10731 S 10732 22 CHF

## Public Land Mobile Network

### General

**Q.1000 (11/88) Withdrawn (12/03)**

Structure of the Q.1000-Series Recommendations for public land mobile networks

*This Recommendation was deleted on 24/12/2003 since it has become obsolete, due to the evolution of the work on mobile networks*

*Individually through the Electronic Bookshop: 20 CHF*

**Q.1001 (11/88)** General aspects of public land mobile networks

*Individually through the Electronic Bookshop: 20 CHF*

**Q.1002 (11/88) Withdrawn (12/03)**

Network functions

*This Recommendation was deleted on 24/12/2003 since it has become obsolete, due to the evolution of the work on mobile networks*

*Individually through the Electronic Bookshop: 20 CHF*

**Q.1003 (11/88)    Withdrawn (12/03)**

Location registration procedures

*This Recommendation was deleted on 24/12/2003 since it has become obsolete, due to the evolution of the work on mobile networks*

*Individually through the Electronic Bookshop:*    20 CHF

**Q.1004 (11/88)    Withdrawn (12/03)**

Location register restoration procedures

*This Recommendation was deleted on 24/12/2003 since it has become obsolete, due to the evolution of the work on mobile networks*

*Individually through the Electronic Bookshop:*    20 CHF

**Q.1005 (11/88)    Withdrawn (12/03)**

Handover procedures

*This Recommendation was deleted on 24/12/2003 since it has become obsolete, due to the evolution of the work on mobile networks*

*Individually through the Electronic Bookshop:*    22 CHF

*Interworking with ISDN and PSTN*

**Q.1031 (11/88)    Withdrawn (12/03)**

General signalling requirements on interworking between the ISDN or PSTN and the PLMN

*Formerly Q.70 (1984). This Recommendation was deleted on 24/12/2003 since it has become obsolete, due to the evolution of the work on mobile networks*

*Individually through the Electronic Bookshop:*    20 CHF

**Q.1032 (11/88)    Withdrawn (12/03)**

Signalling requirements relating to routing of calls to mobile subscribers

*This Recommendation was deleted on 24/12/2003 since it has become obsolete, due to the evolution of the work on mobile networks*

*Individually through the Electronic Bookshop:*    20 CHF

*Mobile Application Part*

**Q.1051 (11/88)    Withdrawn (03/93)**

Mobile application Part

*This Recommendation was made for second generation of mobile systems. For this generation, three specifications have been developed by regional standards organizations. These implementations were complying with the philosophy of intentions of the Q.1000-Series of Recommendations, but they were modified and enhanced to include new functions and to handle regional network dependant features. These regional specifications supersede ITU-T Q.1051 (1988)*

*Individually through the Electronic Bookshop:*

*Digital PLMN user-network interfaces*

**Q.1061 (11/88)    Withdrawn (12/03)**

General aspects and principles relating to digital PLMN access signalling reference points

*This Recommendation was deleted on 24/12/2003 since it has become obsolete, due to the evolution of the work on mobile networks*

*Individually through the Electronic Bookshop:*    20 CHF

**Q.1062 (11/88)    Withdrawn (12/03)**

Digital PLMN access signalling reference configurations

*This Recommendation was deleted on 24/12/2003 since it has become obsolete, due to the evolution of the work on mobile networks*

*Individually through the Electronic Bookshop:*    20 CHF

**Q.1063 (11/88)    Withdrawn (12/03)**

Digital PLMN channel structures and access capabilities at the radio interface (Um reference point)

*This Recommendation was deleted on 24/12/2003 since it has become obsolete, due to the evolution of the work on mobile networks*

*Individually through the Electronic Bookshop:*    20 CHF

*Interworking with satellite mobile systems*

*Interworking with Standard-A INMARSAT system*

**Q.1100 (03/93)**    Structure of the Recommendations on the INMARSAT mobile satellite systems

2pp            E 4075            F 4074            S 4076            8 CHF

**Q.1101 (11/88)**    General requirements for the interworking of the terrestrial telephone network and INMARSAT Standard A system

*Individually through the Electronic Bookshop:*    20 CHF

**Q.1102 (11/88)**    Interworking between Signalling System R2 and INMARSAT Standard A system

*Individually through the Electronic Bookshop:*    20 CHF

**Q.1103 (11/88)**    Interworking between Signalling System No. 5 and INMARSAT Standard A system

*Individually through the Electronic Bookshop:*    20 CHF

### Interworking with Standard-B INMARSAT system

**Q.1111 (03/93)** Interfaces between the INMARSAT Standard B system and the international public switched telephone network/ISDN

22pp E 4461 F 4460 S 4462 15 CHF

**Q.1112 (03/93)** Procedures for interworking between INMARSAT Standard-B system and the international public switched telephone network/ISDN

57pp E 4677 F 4676 S 4678 24 CHF

### Interworking with the INMARSAT aeronautical mobile-satellite system

**Q.1151 (03/93)** Interfaces for interworking between the INMARSAT aeronautical mobile-satellite system and the international public switched telephone network/ISDN

20pp E 4356 F 4355 S 4357 15 CHF

**Q.1152 (03/93)** Procedures for interworking between INMARSAT aeronautical mobile satellite system and the international public switched telephone network/ISDN

55pp E 4464 F 4463 S 4465 24 CHF

### Intelligent Network

**Q.1200 (09/97)** General series Intelligent Network Recommendation structure

12pp E 14314 F 14315 S 14316 12 CHF

**Q.1201/I.312 (10/92)** Principles of intelligent network architecture

*This Recommendation is published with the double number Q.1201 and I.312*

37pp E 3246 F 3245 S 3247 20 CHF

**Q.1202/I.328 (09/97)** Intelligent network – Service plane architecture

*This Recommendation is published with the double number Q.1202 and I.328*

24pp E 12967 F 12968 S 12969 17 CHF

**Q.1203/I.329 (09/97)** Intelligent network – Global functional plane architecture

*This Recommendation is published with the double number Q.1203 and I.329. For more details see I.329*

16pp E 12911 F 12912 S 12913 12 CHF

**Q.1204 (03/93)** Intelligent network distributed functional plane architecture

24pp E 4041 F 4040 S 4042 15 CHF

**Q.1205 (03/93)** Intelligent network physical plane architecture

6pp E 3859 F 3858 S 3860 8 CHF

**Q.1208 (09/97)** General aspects of the Intelligent Network Application protocol

8pp E 12800 F 12801 S 12802 9 CHF

**Q.1210 (10/95)** Q.1210-series Intelligent network Recommendation structure

12pp E 6831 F 6832 S 6833 12 CHF

**Q.1211 (03/93)** Introduction to intelligent network capability set 1

30pp E 3920 F 3919 S 3921 15 CHF

**Q.1213 (10/95)** Global functional plane for intelligent network CS-1

44pp E 6986 F 6987 S 6988 20 CHF

**Q.1214 (10/95)** Distributed functional plane for intelligent network CS-1

312pp E 6941 F 6942 S 6943 99 CHF

**Q.1215 (10/95)** Physical plane for intelligent network CS-1

12pp E 6955 F 6956 S 6957 12 CHF

**Q.1218 (10/95)** Interface Recommendation for intelligent network CS-1

432pp E 7045 F 7046 S 7047 197 CHF

**Q.1218 Addendum 1 (09/97)** Definition for two new contexts in the SDF data model

4pp E 12830 F 12831 S 12832 9 CHF

**Q.1219 (04/94)** Intelligent network user's guide for capability set 1

204pp E 5459 F 5458 S 5460 8 CHF

### Supplements to the Series Q.1210 Recommendations

**Suppl. 1 (09/97)** Intelligent network user's guide for Capability Set 1: Supplement for IN CS-1

20pp E 13079 F 13080 S 13081 17 CHF

### Supplements to the Series Q Recommendations

**Suppl. 4 (05/98)** Number portability – Call control for capability set 1 service provider portability (All call query and Onward routing)

29pp E 14632 F 14633 S 14634 17 CHF

### Intelligent Network

**Q.1220 (09/97)** Q.1220-series Intelligent Network Capability Set 2 Recommendation structure

24pp E 15548 F 15549 S 15550 12 CHF

**Q.1221 (09/97)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's  
44pp E 12803 F 12804 S 12805 22 CHF

**Q.1222 (09/97)** Service plane for Intelligent Network Capability Set 2  
12pp E 12833 F 12834 S 12835 12 CHF

**Q.1223 (09/97)** Global functional plane for Intelligent Network Capability Set 2  
108pp E 12782 F 12783 S 12784 44 CHF

**Q.1224 (09/97)** Distributed functional plane for intelligent network Capability Set 2  
*This Recommendation is published in three fascicles.*  
712pp E 13620 F 13621 S 13622 288 CHF

**Q.1225 (09/97)** Physical plane for Intelligent Network Capability Set 2  
16pp E 12528 F 12529 S 12530 12 CHF

**Q.1228 (09/97)** Interface Recommendation for intelligent network Capability Set 2  
*This Recommendation includes 3 diskettes containing Q.1228 SDL diagrams in SDT source format and in PDF format.*  
968pp E 14620 F 14621 S 14622 310 CHF

**Q.1229 (03/99)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's  
*This Recommendation is published in 5 fascicles.*  
172pp E 17424 F 17425 S 17426 73 CHF

**Q.1231 (12/99)** Introduction to Intelligent Network Capability Set 3  
32pp E 19224 F 19225 S 19226 17 CHF

**Q.1236 (12/99)** Intelligent Network Capability Set 3 – Management Information Model Requirements and Methodology  
56pp E 18102 F 18103 S 18104 29 CHF

**Q.1237 (06/00)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's  
96pp E 19918 F 19919 S 19920 39 CHF

*Q.1238 Interface Recommendation for intelligent network capability set 3*

**Q.1238.1 (06/00)** Common aspects  
*This Recommendation includes an electronic attachment containing the ASN.1 definitions for the IN CS-3 common aspects*  
84pp E 19878 F 19879 S 19880 89 CHF

**Q.1238.2 (06/00)** Interface Recommendation for intelligent network capability set 3 : SCF-SSF interface  
*This Recommendation includes an electronic attachment containing the ASN.1 definitions and the SDL diagrams in machine processable forms and in pdf form for SCF-SFF interface*  
480pp E 20698 F 20699 S 20700 247 CHF

**Q.1238.3 (06/00)** SCF-SRF interface  
*This Recommendation includes an electronic attachment containing the ASN.1 definitions for the IN CS-3 SCF-SRF interface*  
84pp E 20315 F 20316 S 20317 89 CHF

**Q.1238.4 (06/00)** SCF-SDF interface  
*This Recommendation includes an electronic attachment containing the ASN.1 definitions for the IN CS-3 SCF-SDF interface*  
52pp E 20309 F 20310 S 20311 79 CHF

**Q.1238.5 (06/00)** SDF-SDF interface  
*This Recommendation includes an electronic attachment containing the ASN.1 definitions for the IN CS-3 SDF-SDF interface*  
72pp E 20295 F 20297 S 20303 84 CHF

**Q.1238.6 (06/00)** Interface Recommendation for intelligent network capability set 3: SCF-SCF interface  
*This Recommendation includes an electronic attachment containing the ASN.1 definitions for the IN CS-3 SCF-SCF interface*  
84pp E 20727 F 20728 S 20729 9 CHF

**Q.1238.7 (06/00)** Interface Recommendation for intelligent network capability set 3 : SCF-CUSF interface  
*This Recommendation includes an electronic attachment containing the ASN.1 definitions for the IN CS-3 SCF-CUSF interface*  
66pp E 20322 F 20323 S 20324 79 CHF

**Q.1241 (07/01)** Introduction to Intelligent Network Capability Set 4  
24pp E 21704 F 21705 S 21706 17 CHF

**Q.1244 (07/01)** Distributed functional plane for Intelligent Network Capability Set 4  
72pp E 22242 F 22243 S 22244 29 CHF

**Q.1248.1 (07/01)** Interface Recommendation for Intelligent Network Capability Set 4: Common aspects  
88pp E 22054 F 22055 S 22056 89 CHF



**Q.1248.2 (07/01)** Interface recommendation for Intelligent Network Capability Set 4: SCF-SSF Interface  
144pp E 22376 F 22377 S 22378 95 CHF

**Q.1248.3 (07/01)** Interface recommendation for Intelligent Network Capability Set 4 : Interface Recommendation for Intelligent Network Capability Set 4: SCF-SRF interface  
92pp E 21955 F 21956 S 21957 89 CHF

**Q.1248.4 (07/01)** Interface Recommendation for Intelligent Network Capability Set 4: SCF-SDF interface  
60pp E 22093 F 22094 S 22095 79 CHF

**Q.1248.5 (07/01)** Interface Recommendation for Intelligent Network Capability Set 4: SDF-SDF interface  
76pp E 21758 F 21759 S 21760 84 CHF

**Q.1248.6 (07/01)** Interface recommendation for Intelligent Network Capability Set 4 : Interface Recommendation for Intelligent Network Capability Set 4: SCF-SCF interface  
92pp E 21651 F 21652 S 21653 89 CHF

**Q.1248.7 (07/01)** Interface Recommendation for Intelligent Network capability set 4: SCF-CUSF Interface  
65pp E 21488 F 21489 S 21490 79 CHF

**Q.1290 (05/98)** Glossary of terms used in the definition of intelligent networks  
24pp E 13772 F 13773 S 13774 17 CHF

**Q.1300 (10/95)** Telecommunication applications for switches and computers (TASC) – General overview  
16pp E 6891 F 6892 S 6893 12 CHF

**Q.1301 (10/95)** Telecommunication applications for switches and computers (TASC) – TASC Architecture  
28pp E 6958 F 6959 S 6960 17 CHF

**Q.1302 (10/95)** Telecommunication applications for switches and computers (TASC) – TASC functional services  
96pp E 6800 F 6803 S 6804 39 CHF

**Q.1303 (10/95)** Telecommunication applications for switches and computers (TASC) – TASC Management: Architecture, methodology and requirements  
20pp E 6851 F 6852 S 6853 17 CHF

**Q.1400 (03/93)** Architecture framework for the development of signalling and OA&M protocols using OSI concepts  
49pp E 6132 F 6131 S 6133 8 CHF

**Q.1400 Addendum 1 (02/95)** Architecture framework for the development of signalling and OAM protocols using OSI concepts  
5pp E 4578 F 4577 S 4579 20 CHF

**Q.1521 (06/00)** Requirements on underlying networks and signalling protocols to support UPT  
40pp E 19605 F 19606 S 19607 22 CHF

**Q.1531 (06/00)** UPT security requirements for Service Set 1  
28pp E 19967 F 19968 S 19969 17 CHF

**Q.1541 (05/98)** UPT stage 2 for Service Set 1 on IN CS1 – Procedures for universal personal telecommunication: Functional modelling and information flows  
64pp E 14430 F 14431 S 14432 29 CHF

**Q.1542 (06/00)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's  
95pp E 20067 F 20068 S 20069 39 CHF

**Q.1551 (06/97)** Application of Intelligent Network Application Protocols (INAP) CS1 for UPT Service Set 1  
152pp E 12317 F 12318 S 12319 61 CHF

**Q.1600 (09/97)** Signalling system No. 7 – Interaction between ISUP and INAP  
56pp E 12756 F 12757 S 12758 29 CHF

**Q.1600 bis (12/99)** Signalling system No. 7 – Interaction between ISDN user part ISUP'97 and INAP CS1: Test suite structure and test purposes (TSS & TP)

*This Recommendation includes an electronic attachment containing the ATS in machine processable form and in pdf form for ISUP'97/INAP CS-1 interaction*

52pp E 19573 F 19574 S 19575 79 CHF

**Q.1600 bis (1999) Amendment 1  
(12/00)** Amendment 1

22pp E 21504 17 CHF

**Q.1601 (12/99)** Signalling system No. 7 – Interaction between N-ISDN and INAP CS2

56pp E 18943 F 18944 S 18945 29 CHF

**Signalling requirements and protocols for  
IMT-2000**

**Q.1701 (03/99)** Framework for IMT-2000 networks

24pp E 16183 F 16184 S 16185 17 CHF

**Q.1702 (06/02)** Long-term vision of network aspects for systems beyond IMT-2000

16pp E 22331 F 22332 S 22333 12 CHF

**Signalling requirements and protocols for  
IMT-2000**

**Q.1711 (03/99)** Network functional model for IMT-2000

64pp E 16332 F 16333 S 16335 29 CHF

**Intelligent Network**

**Q.1721 (06/00)** Information flows for imt-2000 capability set 1

180pp E 18871 F 18872 S 18873 73 CHF

**Q.1731 (06/00)** Radio-technology independent requirements for IMT-2000 layer 2 radio interface

28pp E 18309 F 18310 S 18311 17 CHF

**Q.1741.1 (04/02)** IMT-2000 references to release 1999 of GSM evolved UMTS core network with UTRAN access network

156pp E 22674 F 22675 S 22676 61 CHF

**Q.1741.2 (12/02)** IMT-2000 references to release 4 of GSM evolved UMTS core network with UTRAN access network

200pp E 24204 F 24205 S 24206 73 CHF

**Q.1741.3 (09/03)** IMT-2000 references to release 5 of GSM evolved UMTS core network

To be published...

**Q.1742.1 (12/02)** IMT-2000 references to ANSI-41 evolved core network with cdma2000 access network

54pp E 23683 F 23684 S 23685 29 CHF

**Q.1742.2 (07/03)** IMT-2000 references (approved as of 11 July 2002) to ANSI-41 evolved core network with cdma2000 access network

72pp E 24785 F 24786 S 24787 34 CHF

**Q.1742.2 (2003) Erratum 1 (03/04)** Erratum 1 (03/2004) to ITU-T Recommendation Q.1742.2 (2003)

**Q.1742.3 (01/04)** IMT-2000 references (approved as of 30 June 2003) to ANSI-41 evolved core network with cdma2000 access network

83pp E 25548 34 CHF

**Q.1751 (06/00)** Internetwork signalling requirements for IMT-2000 capability set 1

44pp E 18777 F 18778 S 18779 22 CHF

**Q.1761 (01/04)** Principles and requirements for convergence of fixed and existing IMT-2000 systems

22pp E 25297 17 CHF

**Q.1901 (06/00)** Bearer independent call control protocol

84pp E 19940 F 19941 S 19942 39 CHF

**Q.1901 (2000) Corrigendum 1 (04/02)**

**Specifications of signalling related to Bearer Independent Call Control (BICC)**

**Q.1902.1 (07/01)** Bearer Independent Call Control protocol (Capability Set 2): Functional description

32pp E 21561 F 21562 S 21563 17 CHF

**Q.1902.1 (2001) Amendment 1 (12/02)** Support for the international emergency preference scheme

9pp E 23797 F 23798 S 23799 9 CHF

**Q.1902.2 (07/01)** Bearer Independent Call Control protocol (Capability Set 2) and Signalling System No. 7 ISDN user part: General functions of messages and parameters

40pp E 21806 F 21807 S 21808 22 CHF

**Q.1902.2 (2001) Amendment 1 (12/02)** Support for the International Emergency Preference Scheme

7pp E 23803 F 23804 S 23805 9 CHF

**Q.1902.2 (2001) Amendment 2 (04/04)**

7pp E 25474 9 CHF

**Q.1902.3 (07/01)** Bearer independent call control protocol (Capability Set 2) and Signalling System No. 7 ISDN user part: Formats and codes

156pp E 21838 F 21839 S 21840 61 CHF

**Q.1902.3 (2001) Amendment 1 (12/02)** Support for the International Emergency Preference Scheme

7pp E 23777 F 23778 S 23779 9 CHF

**Q.1902.3 (2001) Amendment 2 (04/04)**

11pp E 25496 9 CHF

**Q.1902.3 (2001) Corrigendum 1 (04/02)**

To be published...

**Q.1902.4 (07/01)** Bearer independent call control protocol (Capability Set 2): Basic call procedures

140pp E 22029 F 22030 S 22031 55 CHF

**Q.1902.4 (2001) Amendment 1 (12/02)** Support for the International Emergency Preference Scheme

11pp E 23851 F 23852 S 23853 9 CHF

**Q.1902.4 (2001) Amendment 2 (04/04)**

To be published...

**Q.1902.4 (2001) Corrigendum 1 (04/02)**

*Not published, directly consolidated with ITU-T Q.1902.4 (07/2001) text*

To be published...

**Q.1902.5 (07/01)** Bearer Independent Call Control protocol (Capability Set 2): Exceptions to the application transport mechanism in the context of BICC

8pp E 21666 F 21667 S 21668 9 CHF

**Q.1902.6 (07/01)** Bearer Independent Call Control protocol (Capability Set 2): Generic signalling procedures for the support of the ISDN user part supplementary services and for bearer redirection

24pp E 21767 F 21768 S 21769 17 CHF

**Q.1902.6 (2001) Amendment 1 (04/04)**

12pp E 25520 9 CHF

**Q.1912.1 (07/01)** Interworking between Signalling System No. 7 ISDN user part and the Bearer Independent Call Control protocol

12pp E 21669 F 21670 S 21671 12 CHF

**Q.1912.2 (07/01)** Interworking between selected signalling systems (PSTN access, DSS1, C5, R1, R2, TUP) and the Bearer Independent Call Control protocol

16pp E 21718 F 21719 S 21720 12 CHF

**Q.1912.3 (07/01)** Interworking between H.323 and the Bearer Independent Call Control protocol

12pp E 21672 F 21673 S 21674 12 CHF

**Q.1912.4 (07/01)** Interworking between Digital Subscriber Signalling System No. 2 and the Bearer Independent Call Control protocol

8pp E 21675 F 21676 S 21677 9 CHF

**Q.1922.2 (07/01)** Interaction between the Intelligent Network application protocol Capability set 2 and the Bearer independent call control protocol

8pp E 21660 F 21661 S 21662 9 CHF

**Q.1922.4 (12/02)** Interaction between the Intelligent Network application CS4 protocol and the Bearer Independent Call Control protocol

68pp E 23905 F 23906 S 23907 29 CHF

**Q.1930 (04/02)** BICC Access Network Protocol

82pp E 22723 F 22724 S 22725 34 CHF

**Q.1950 (12/02)** Bearer independent call bearer control protocol

106pp E 23863 F 23864 S 23865 44 CHF

**Q.1970 (07/01)** BICC IP Bearer control protocol  
16pp E 21546 F 21547 S 21548 12 CHF

**Q.1990 (07/01)** BICC Bearer Control Tunnelling Protocol  
12pp E 21678 F 21679 S 21680 12 CHF

## Broadband ISDN

### General aspects

**Q.2010 (02/95)** Broadband integrated services digital network overview – Signalling capability set 1, release 1  
8pp E 5924 F 5923 S 5925 11 CHF

### Signalling ATM adaptation layer (SAAL)

**Q.2100 (07/94)** B-ISDN signalling ATM adaptation layer (SAAL) – Overview description  
3pp E 5588 F 5587 S 5589 8 CHF

**Q.2110 (07/94)** B-ISDN ATM adaptation layer – Service specific connection oriented protocol (SSCOP)  
95pp E 5674 F 5673 S 5675 39 CHF

**Q.2111 (12/99)** Service specific connection oriented protocol in a multi-link and connectionless environment (SSCOPMCE)  
120pp E 20058 F 20059 S 20060 49 CHF

**Q.2111 (1999) Amendment 1 (07/01)**  
Amendment 1 – B-ISDN ATM adaptation layer – Service specific connection oriented protocol in a multilink and connectionless environment (SSCOPMCE)  
48pp E 21898 F 21899 S 21900 22 CHF

**Q.2111 (1999) Amendment 2 (04/02)** API for SSCOPMCE over Ethernet  
26pp E 22401 F 22402 S 22403 17 CHF

**Q.2111 (1999) Amendment 2 Erratum 1 (03/04)** Erratum 1 (03/2004) to ITU-T Recommendation Q.2111 (1999) Amend. 2

**Q.2111 (1999) Amendment 3 (10/03)** API for SSCOPMCE over Ethernet and UDP port number  
24639pp E 24 17 CHF

**Q.2119 (07/96)** B-ISDN ATM adaptation layer – Convergence function for SSCOP above the frame relay core service  
16pp E 10452 F 10453 S 10454 12 CHF

**Q.2120 (02/95)** B-ISDN meta-signalling protocol  
56pp E 6044 F 6043 S 6045 24 CHF

**Q.2130 (07/94)** B-ISDN signalling ATM adaptation layer – Service specific coordination function for support of signalling at the user-network interface (SSCF at UNI)  
54pp E 5677 F 5676 S 5678 25 CHF

**Q.2140 (02/95)** B-ISDN ATM adaptation layer – Service specific coordination function for signalling at the network node interface (SSCF AT NNI)  
61pp E 6135 F 6134 S 6136 25 CHF

### Q.2140 (1995) Erratum 1 (03/04)

**Q.2144 (10/95)** B-ISDN signalling ATM adaptation layer – Layer management for the SAAL at the network node interface  
32pp E 7096 F 7097 S 7098 17 CHF

**Q.2150.0 (05/01)** Generic signalling transport service  
14pp E 20804 F 20805 S 20806 12 CHF

**Q.2150.1 (05/01)** Signalling Transport Converter on MTP3 and MTP3b  
36pp E 20678 F 20679 S 20680 22 CHF

**Q.2150.2 (05/01)** Signalling transport converter on SSCOP and SSCOPMCE  
34pp E 20794 F 20795 S 20796 22 CHF

**Q.2150.3 (12/02)** Signalling transport converter on SCTP  
22pp E 23818 F 23819 S 23820 17 CHF

## Signalling network protocols

**Q.2210 (07/96)** Message transfer part level 3 functions and messages using the services of ITU-T Recommendation Q.2140

28pp E 10106 F 10107 S 10108 17 CHF

**Q.2220 (12/02)** Transport-Independent Signalling Connection Control Part (TI-SCCP)

66pp E 24999 F 25000 S 25001 29 CHF

## Common aspects of B-ISDN application protocols for access signalling and network signalling and interworking

**Q.2610 (12/99)** Usage of cause and location in B-ISDN user part and DSS2

8pp E 17657 F 17658 S 17659 9 CHF

**Q.2630.1 (12/99)** AAL type 2 signalling protocol (Capability Set 1)

88pp E 19430 F 19431 S 19432 39 CHF

**Q.2630.1 Annex B (03/01)** Annex B: SDL definition of the AAL type 2 signalling protocol CS-1

70pp E 20867 F 20868 S 20869 34 CHF

**Q.2630.2 (12/00)** AAL type 2 signalling protocol – Capability Set 2

56pp E 20864 F 20865 S 20866 29 CHF

**Q.2630.2 Annex D (04/02)** Annex D: SDL definition of the AAL type 2 signalling protocol CS-2

84pp E 23687 F 23688 S 23689 34 CHF

**Q.2630.3 (10/03)** AAL type 2 signalling protocol – Capability Set 3

160pp E 25389 61 CHF

**Q.2631.1 (10/03)** Interworking between AAL type 2 signalling protocol Capability Set 2 and IP connection control signalling protocol Capability Set 1

53pp E 24813 F 24814 S 24815 29 CHF

**Q.2632.1 (10/02)** Interworking between AAL type 2 signalling protocol Capability Set 2 and IP connection control signalling protocol Capability Set 1

32pp E 24757 F 24758 S 24759 17 CHF

**Q.2650 (12/99)** Interworking between Signalling System No. 7 broadband ISDN User Part (B-ISUP) and digital subscriber Signalling System No. 2 (DSS 2)

44pp E 18785 F 18786 S 18787 22 CHF

**Q.2660 (12/99)** Interworking between signalling system No. 7 broadband ISDN User Part (B-ISUP) and narrow-band ISDN User Part (N-ISUP)

36pp E 17764 F 17765 S 17766 22 CHF

## B-ISDN application protocols for the network signalling

**Q.2721.1 (07/96) Withdrawn (05/00)**

B-ISDN user part – Overview of the B-ISDN Network Node Interface Signalling Capability Set 2, Step 1

*The content of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

24pp E 10568 F 10569 S 10570 17 CHF

**Q.2722.1 (07/96)** B-ISDN User Part – Network Node Interface specification for point-to-multipoint call/connection control

68pp E 10630 F 10631 S 10632 34 CHF

**Q.2722.1 (1996) Amendment 1 (06/00)**

8pp E 19737 F 19738 S 19739 9 CHF

**Q.2723.1 (07/96) Withdrawn (05/00)**

B-ISDN User Part – Support of additional traffic parameters for Sustainable Cell Rate and Quality of Service

*The contents of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

16pp E 10489 F 10490 S 10491 12 CHF

**Q.2723.2 (09/97) Withdrawn (05/00)**

Extensions to the B-ISDN User Part – Support of ATM transfer capability in the broadband bearer capability parameter

*The contents of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

12pp E 12719 F 12720 S 12721 12 CHF

**Q.2723.3 (09/97) Withdrawn (05/00)**

Extensions to the B-ISDN User Part – Signalling capabilities to support traffic parameters for the Available Bit Rate (ABR) ATM transfer capability

*The contents of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

16pp E 12722 F 12723 S 12724 12 CHF

**Q.2723.4 (09/97) Withdrawn (05/00)**

Extensions to the B-ISDN User Part – Signalling capabilities to support traffic parameters for the ATM Block Transfer (ABT) ATM transfer capability

*The contents of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

16pp E 12741 F 12742 S 12743 12 CHF

**Q.2723.5 (03/99) Withdrawn (05/00)**

B-ISDN User Part – Support of cell delay variation tolerance indication

*The contents of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

16pp E 16543 F 16544 S 16545 12 CHF

**Q.2723.6 (05/98) Withdrawn (05/00)**

Extensions to the Signalling System No. 7 B-ISDN User Part – Signalling capabilities to support the indication of the Statistical Bit Rate configuration 2 (SBR 2) and 3 (SBR 3) ATM transfer capabilities

*The contents of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

8pp E 13601 F 13602 S 13603 9 CHF

**Q.2724.1 (07/96) B-ISDN User Part – Look-ahead without state change for the Network Node Interface**

32pp E 10761 F 10762 S 10763 17 CHF

**Q.2725.1 (05/98) Withdrawn (05/00)**

B-ISDN User Part – Support of negotiation during connection setup

*The contents of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

16pp E 13715 F 13716 S 13717 12 CHF

**Q.2725.2 (07/96) Withdrawn (05/00)**

B ISDN User Part – Modification procedures

*The contents of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

28pp E 10807 F 10808 S 10809 22 CHF

**Q.2725.3 (09/97) Withdrawn (05/00)**

Extensions to the B-ISDN User Part – Modification procedures for sustainable cell rate parameters

*The contents of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

12pp E 12598 F 12599 S 12600 12 CHF

**Q.2725.4 (05/98) Withdrawn (05/00)**

Extensions to the Signalling System No. 7 B-ISDN User Part – Modification procedures with negotiation

*The contents of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

16pp E 13718 F 13719 S 13720 12 CHF

**Q.2726.1 (07/96) Withdrawn (05/00)**

B-ISDN user part – ATM end system address

*The contents of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

16pp E 10492 F 10493 S 10494 12 CHF

**Q.2726.2 (07/96) B-ISDN user part – Call priority**

12pp E 10574 F 10576 S 10577 12 CHF

**Q.2726.3 (07/96) B-ISDN user part – Network generated session identifier**

12pp E 10575 F 10578 S 10579 12 CHF

**Q.2726.4 (06/00) Extensions to the B-ISDN User Part – Application generated identifiers**

12pp E 19448 F 19449 S 19450 12 CHF

**Q.2727 (07/96) Withdrawn (05/00)**

B-ISDN user part – Support of frame relay

*The contents of this Rec. is now covered by ITU-T Recs. Q.2761, Q.2762, Q.2763 and Q.2764 approved in 12/1999*

12pp E 10455 F 10456 S 10457 12 CHF

**Q.2730 (12/99) Signalling system No. 7 B-ISDN user part (B-ISUP) – Supplementary services**

40pp E 17684 F 17685 S 17686 22 CHF

**Q.2735 Stage 3 description for community of interest supplementary services for B-ISDN using SS No. 7****Q.2735.1 (06/97) Closed User Group (CUG)**

20pp E 12022 F 12023 S 12024 17 CHF



**Q.2751.1 (09/97)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's

64pp      E 12668    F 12669    S 12670      29 CHF

**Q.2761 (12/99)** Functional description of the B-ISDN user part (B-ISUP) of signalling system No. 7

40pp      E 18774    F 18775    S 18776      22 CHF

*B-ISDN application protocols for access signalling*

**Q.2761 (1999) Amendment 1 (12/02)** Support for the International Emergency Preference Scheme

9pp      E 23880    F 23881    S 23882      9 CHF

*B-ISDN application protocols for the network signalling*

**Q.2762 (12/99)** General functions of messages and signals of the B-ISDN user part (B-ISUP) of Signalling System No. 7

36pp      E 18720    F 18721    S 18722      22 CHF

*B-ISDN application protocols for access signalling*

**Q.2762 (1999) Amendment 1 (12/02)** Support for the International Emergency Preference Scheme

7pp      E 23800    F 23801    S 23802      9 CHF

*B-ISDN application protocols for the network signalling*

**Q.2763 (12/99)** Signalling System No. 7 B-ISDN User Part (B-ISUP) – Formats and codes

94pp      E 19668    F 19669    S 19670      39 CHF

*B-ISDN application protocols for access signalling*

**Q.2763 (1999) Amendment 1 (12/02)** Support for the International Emergency Preference Scheme

7pp      E 25587    F 25588    S 25589      9 CHF

*B-ISDN application protocols for the network signalling*

**Q.2764 (12/99)** Signalling System No. 7 B-ISDN User Part (B-ISUP) – Basic call procedures

200pp      E 19636    F 19637    S 19638      73 CHF

*B-ISDN application protocols for access signalling*

**Q.2764 (1999) Amendment 1 (12/02)** Support for the international emergency preference scheme

11pp      E 23825    F 23826    S 23827      9 CHF

*B-ISDN application protocols for the network signalling*

**Q.2765 (12/99)** Signalling System No. 7 B-ISDN User Part (B-ISUP) – Application transport mechanism (APM)

16pp      E 19053    F 19054    S 19055      12 CHF

**Q.2766.1 (05/98)** Switched virtual path capability

36pp      E 14176    F 14177    S 14178      22 CHF

**Q.2766.1 (1998) Amendment 1 (06/00)**

12pp      E 19779    F 19780    S 19781      12 CHF

**Q.2767.1 (06/00)** Soft PVC capability

24pp      E 19549    F 19550    S 19551      17 CHF

**Q.2769.1 (06/00)** Support of number portability information across B-ISUP

16pp      E 19822    F 19823    S 19824      12 CHF

*B-ISDN application protocols for access signalling*

**Q.2920 (12/03)** Broadband integrated services digital network (B-ISDN) – Digital Subscriber Signalling System No. 2 (DSS 2): Call/connection control for the support of ATM-MPLS network interworking

21pp      E 25121    F 25122    S 25123      17 CHF

**Q.2931 (02/95)** Digital Subscriber Signalling System No. 2 – User-Network Interface (UNI) layer 3 specification for basic call/connection control

*Modified by ITU-T Q.2971 (10/1995).*

248pp      E 6312    F 6313    S 6314      80 CHF

**Q.2931B (12/00)** Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS 2) – User-network interface (UNI) layer 3 specification for basic call/connection control: Protocol implementation conformance statement (PICS) proforma

34pp E 20419 22 CHF

**Q.2931C (12/00)** Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS 2) – User-network interface (UNI) layer 3 specification for basic call/connection control: Test Suite Structure and Test Purposes (TSS & TP) for the user

12pp E 20360 9 CHF

**Q.2931D (12/00)** Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS 2) – User-network interface (UNI) layer 3 specification for basic call/connection control: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the user

12pp E 20467 9 CHF

**Q.2931E (12/00)** Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS 2) – User-network interface (UNI) layer 3 specification for basic call/connection control: Test Suite Structure and Test Purposes (TSS & TP) for the Network

8pp E 20470 9 CHF

**Q.2931F (12/00)** Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS 2) – User-network interface (UNI) layer 3 specification for basic call/connection control – Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the network

12pp E 20422 F 20423 S 20424 12 CHF

#### **Q.2931 (1995) Amendment 1 (06/97)**

8pp E 12025 F 12026 S 12027 9 CHF

#### **Q.2931 (1995) Amendment 2 (03/99)**

20pp E 16616 F 16617 S 16618 17 CHF

#### **Q.2931 (1995) Amendment 2 Corrigendum 1 (06/00)**

#### **Q.2931 (1995) Amendment 3 (03/99)**

8pp E 16604 F 16605 S 16606 9 CHF

#### **Q.2931 (1995) Amendment 4 (12/99)**

80pp E 19409 F 19410 S 19411 34 CHF

#### *Q.2932 Digital Subscriber Signalling System No. 2 – Generic functional protocol*

##### **Q.2932.1 (07/96)** Core functions

100pp E 10153 F 10154 S 10155 44 CHF

##### **Q.2933 (07/96)** Digital Subscriber Signalling System No. 2 – Signalling specification for Frame Relay service

16pp E 10458 F 10459 S 10460 12 CHF

##### **Q.2934 (05/98)** Digital Subscriber Signalling System No. 2 – Switched virtual path capability

20pp E 14191 F 14192 S 14193 17 CHF

##### **Q.2939.1 (09/97)** Digital Subscriber Signalling System No. 2 – Application of DSS2 service-related information elements by equipment supporting B-ISDN services

12pp E 12671 F 12672 S 12673 12 CHF

##### **Q.2941.1 (09/97)** Digital Subscriber Signalling System No. 2 – Generic identifier transport

12pp E 12734 F 12735 S 12736 12 CHF

##### **Q.2941.2 (12/99)** Digital Subscriber Signalling System No. 2 – Generic identifier transport extensions

16pp E 18909 F 18910 S 18911 12 CHF

##### **Q.2941.3 (06/00)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's

8pp E 19451 F 19452 S 19453 9 CHF

#### *Q.2951 Stage 3 description for number identification supplementary services using B-ISDN Digital Subscriber Signalling System No. 2 (DSS2) – Basic Call*

##### **Q.2951.1-8 (02/95)** Stage 3 description for number identification supplementary services using B-ISDN Digital Subscriber Signalling System No. 2 (DSS2) – Basic Call

E 6111 F 6111 S 6111 25 CHF

#### **Q.2951 (1995) Corrigendum 1 (05/98)**

##### **Q.2951.9 (12/99)** Support of ATM end system addressing format by Number identification supplementary services

16pp E 18894 F 18895 S 18896 12 CHF

*Q.2955 Stage 3 description for community of interest supplementary services using B-ISDN Digital Subscriber Signalling System No. 2 (DSS2)*

**Q.2955.1 (06/97)** Closed User Group (CUG)  
24pp E 12239 F 12240 S 12241 17 CHF

*Q.2957 Stage 3 description for additional information transfer supplementary services using B-ISDN digital subscriber Signalling System No.2 (DSS 2) – Basic call*

**Q.2957.1 (02/95)** User-to-user signalling (UUS)  
*Modified by ITU-T Q.2971 (10/1995).*  
10pp E 6010 F 6009 S 6011 11 CHF

**Q.2957.1 (1995) Amendment 1 (12/99)**  
8pp E 18652 F 18653 S 18654 9 CHF

**Q.2959 (07/96)** Digital subscriber signalling system No. 2 – Call priority  
16pp E 10495 F 10496 S 10497 12 CHF

*Q.2961 Digital Subscriber Signalling System No. 2 – Additional traffic parameters*

**Q.2961B (12/00)** Digital subscriber signalling system No. 2 (DSS 2) – Additional traffic parameters: Protocol implementation conformance statement (PICS) proforma  
34pp E 20364 17 CHF

**Q.2961C (12/00)** Digital subscriber signalling system No. 2 (DSS 2) – Additional traffic parameters: Test Suite Structure and Test Purposes (TSS & TP) for the user  
12pp E 20368 9 CHF

**Q.2961D (12/00)** Digital subscriber signalling system No. 2 (DSS 2) – Additional traffic parameters: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the user  
12pp E 20371 9 CHF

**Q.2961E (12/00)** Digital subscriber signalling system No. 2 (DSS 2) – Additional traffic parameters: Test Suite Structure and Test Purposes (TSS & TP) for the network  
12pp E 20374 9 CHF

**Q.2961F (12/00)** Digital subscriber signalling system No. 2 (DSS 2) – Additional traffic parameters: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the Network

12pp E 20377 9 CHF

**Q.2961.1 (10/95)** Additional signalling capabilities to support traffic parameters for the tagging option and the sustainable cell rate parameter set

16pp E 6983 F 6984 S 6985 11 CHF

**Q.2961.2 (06/97)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's

16pp E 12302 F 12303 S 12304 12 CHF

**Q.2961.2 (1997) Corrigendum 1 (03/99)**

**Q.2961.3 (09/97)** Signalling capabilities to support traffic parameters for the available bit rate (ABR) ATM transfer capability

20pp E 12806 F 12807 S 12808 17 CHF

**Q.2961.4 (09/97)** Signalling capabilities to support traffic parameters for the ATM Block Transfer (ABT) ATM transfer capability

16pp E 12809 F 12810 S 12811 12 CHF

**Q.2961.5 (03/99)** Additional traffic parameters for cell delay variation tolerance indication

20pp E 16607 F 16608 S 16609 17 CHF

**Q.2961.6 (05/98)** Additional signalling procedures for the support of the SBR2 and SBR3 ATM transfer capabilities

12pp E 14169 F 14170 S 14171 12 CHF

**Q.2962 (05/98)** Digital Subscriber Signalling System No. 2 – Connection characteristics negotiation during call/connection establishment phase

16pp E 13721 F 13722 S 13723 12 CHF

**Q.2962B (12/00)** Digital subscriber signalling system No. 2 – Connection characteristics negotiation during call/connection establishment phase: Protocol Implementation Conformance Statement (PICS) proforma

12pp E 20380 9 CHF

**Q.2962C (12/00)** Digital subscriber signalling system No. 2 – Connection characteristics negotiation during call/connection establishment phase: Test Suite Structure and Test Purposes (TSS & TP) for the user

12pp      E 20383      9 CHF

**Q.2962D (12/00)** Digital subscriber signalling system No. 2 – Connection characteristics negotiation during call/connection establishment phase: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the user

12pp      E 20386      9 CHF

**Q.2962E (12/00)** Digital subscriber signalling system No. 2 – Connection characteristics negotiation during call/connection establishment phase: Test Suite Structure and Test Purposes (TSS & TP) for the network

12pp      E 20464      9 CHF

**Q.2962F (12/00)** Digital subscriber signalling system No. 2 – Connection characteristics negotiation during call/connection establishment phase: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the network

12pp      E 20389      9 CHF

#### *Q.2963 Digital Subscriber Signalling System No. 2 – Connection modification*

**Q.2963.1 (12/99)** Peak cell rate modification by the connection owner

36pp      E 18883      F 18884      S 18885      22 CHF

**Q.2963.1B (12/00)** Digital subscriber signalling system No. 2 – Connection modification: Peak cell rate modification by the connection owner: Protocol Implementation Conformance Statement (PICS) proforma

*ITU-T Q.2963.1 B was previously numbered as Q.2963.1 bis during the approval process*

12pp      E 20345      9 CHF

**Q.2963.1C (12/00)** Digital subscriber signalling system No. 2 – Connection modification : Peak cell rate modification by the connection owner: Test Suite Structure and Test Purposes (TSS & TP) for the user

*ITU-T Q.2963.1 C was previously numbered as Q.2963.1 ter during the approval process*

12pp      E 20348      9 CHF

**Q.2963.1D (12/00)** Digital subscriber signalling system No. 2 – Connection modification : Peak cell rate modification by the connection owner: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the user

*ITU-T Q.2963.1 D was previously numbered as Q.2963.1 quater during the approval process*

12pp      E 20351      9 CHF

**Q.2963.1E (12/00)** Digital subscriber signalling system No. 2 – Connection modification: Peak cell rate modification by the connection owner: Test Suite Structure and Test Purposes (TSS & TP) for the network

*ITU-T Q.2963.1 E was previously numbered as Q.2963.1 quinques during the approval process*

12pp      E 20354      9 CHF

**Q.2963.1F (12/00)** Digital subscriber signalling system No. 2 – Connection modification: Peak cell rate modification by the connection owner: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the network

*ITU-T Q.2963.1 F was previously numbered as Q.2963.1 sexies during the approval process*

12pp      E 20357      9 CHF

**Q.2963.2 (09/97)** Modification procedures for sustainable cell rate parameters

12pp      E 12565      F 12566      S 12567      12 CHF

**Q.2963.3 (05/98)** ATM traffic descriptor modification with negotiation by the connection owner

16pp      E 14149      F 14150      S 14151      12 CHF

#### *Q.2964 Digital Subscriber Signalling System No. 2*

**Q.2964.1 (07/96)** Basic Look-Ahead

20pp      E 10654      F 10655      S 10656      17 CHF

**Q.2965.1 (03/99)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's

12pp      E 16610      F 16611      S 16612      12 CHF

**Q.2965.1 (1999) Amendment 1 (06/00)**

8pp      E 19707      F 19708      S 19709      9 CHF

**Q.2965.1B (12/00)** Digital subscriber signalling system No. 2 – Support of Quality of Service classes: Protocol Implementation Conformance Statement (PICS) proforma

*ITU-T Q.2965 B was previously numbered as Q.2965.1 bis during the approval process*

22pp E 20527 F 20528 S 20529 17 CHF

**Q.2965.2 (12/99)** Digital Subscriber Signalling System No. 2 – Signalling of individual Quality of Service parameters

20pp E 18880 F 18881 S 18882 17 CHF

**Q.2965.2B (12/00)** Digital subscriber signalling system No. 2 – Signalling of individual Quality of Service parameters: Protocol Implementation Conformance Statement (PICS) proforma

*ITU-T Q.2965 B was previously numbered as Q.2965.2 bis during the approval process*

26pp E 20446 F 20447 S 20448 17 CHF

**Q.2971 (10/95)** Digital Subscriber Signalling System No. 2 (DSS2) – User-network interface layer 3 specification for point-to-multipoint call/connection control

*Modifies ITU-T Q.2931, Q.2951 and Q.2957.*

172pp E 6944 F 6945 S 6946 65 CHF

**Q.2971C (12/99)** Digital Subscriber signalling system No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control: Test Suite Structure and Test Purposes (TSS & TP) for the user

*ITU-T Q.2971 C was previously numbered as Q.2971 ter during the approval process*

8pp E 18655 F 18656 S 18657 9 CHF

**Q.2971D (12/99)** Digital subscriber signalling system No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the user

*ITU-T Q.2971 D was previously numbered as Q.2971 quater during the approval process*

16pp E 18637 F 18638 S 18639 12 CHF

**Q.2971E (12/99)** Digital subscriber signalling system No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control: Test Suite Structure and Test Purposes (TSS & TP) for the network

*ITU-T Q.2971 E was previously numbered as Q.2971 quinques during the approval process*

12pp E 18640 F 18641 S 18642 12 CHF

**Q.2971F (12/99)** Digital Subscriber Signalling System No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the network

*ITU-T Q.2971 F was previously numbered as Q.2971 sexies during the approval process*

20pp E 18658 F 18659 S 18660 17 CHF

#### **Q.2971 (1999) Corrigendum 1 (12/99)**

**Q.2981 (12/99)** Broadband integrated services digital network (B-ISDN) and broadband private integrated services network (B-PISN) – Call control protocol

68pp E 19546 F 19547 S 19548 34 CHF

**Q.2982 (12/99)** Broadband integrated services digital network (B-ISDN) – Digital Subscriber Signalling System No. 2 (DSS2) – Q.2931-based separated call control protocol

28pp E 17669 F 17670 S 17671 17 CHF

**Q.2983 (12/99)** Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling No. 2 (DSS2) – Bearer control protocol

16pp E 17672 F 17673 S 17674 12 CHF

**Q.2984 (12/99)** Broadband integrated services digital network (B-ISDN) and broadband private integrated services network (B-PISN) – Pre-negotiation

24pp E 18780 F 18781 S 18782 17 CHF

**Q.2991 (12/99)** Abstract test suite for the network integration testing for B-ISDN and B-ISDN/N-ISDN

To be published...

**Q.2991.1 (12/99)** Abstract test suite for the network integration testing for B-ISDN and B-ISDN/N-ISDN: TSS & TP

*This Recommendation includes an electronic attachment containing Test Purpose list for network integration testing*

16pp E 19661 F 19662 S 19663 62 CHF

**Q.2991.2 (12/99)** ICS & IXIT and ATS

*This Recommendation includes an electronic attachment containing the ATS in machine processable form and in pdf form for network integration testing*

42pp E 19614 F 19615 S 19616 72 CHF

**Supplements to the Series Q Recommendations****Suppl. 1 (10/95)** Signalling System No. 7 testing and planning tools

16pp E 7003 F 7004 S 7005 11 CHF

**Suppl. 2 (09/97)** Intelligent Network user's guide: Supplement for IN CS-1

*Formerly Suppl.1 to ITU-T Recommendation Q.1219*

20pp E 13079 F 13080 S 13081 17 CHF

**Suppl. 3 (05/98)** Number portability – Scope and capability set 1 architecture

55pp E 15895 F 15896 S 15897 22 CHF

**Suppl. 5 (03/99)** Number portability – Capability set 2 requirements for service provider portability (Query on release and Dropback)

56pp E 16399 F 16400 S 16401 17 CHF

**Suppl. 6 (03/99)** Technical report TRQ.2000: Roadmap for the TRQ.2xxx-series technical reports

17pp E 16217 F 16218 S 16219 12 CHF

**Suppl. 7 (03/99)** Technical report TRQ.2001: General aspects for the development of unified signalling requirements

84pp E 16496 F 16497 S 16498 39 CHF

**Suppl. 8 (03/99)** Technical report TRQ.2400: Transport control signalling requirements – Signalling requirements for AAL Type 2 link control capability set 1

20pp E 16220 F 16221 S 16222 17 CHF

**Suppl. 10 (12/99)** Technical Report TRQ.2002: Information Flow Elements

36pp E 18607 F 18607 S 18607 22 CHF

**Suppl. 11 (12/99)** Technical Report TRQ.2010: B-ISDN signalling interworking requirements

16pp E 18627 F 18627 S 18627 12 CHF

**Suppl. 12 (12/99)** Technical Report TRQ.2100

172pp E 19376 F 19377 S 19378 73 CHF

**Suppl. 13 (12/99)** Technical Report TRQ.2110

116pp E 19120 F 19121 S 19122 44 CHF

**Suppl. 14 (12/99)** Technical Report TRQ.2120:

Coordinated call control and bearer control signalling requirements – Third party coordinated call and bearer control

44pp E 18684 F 18685 S 18686 22 CHF

**Suppl. 15 (12/99)** Technical Report TRQ.2130

62pp E 18931 F 18932 S 18933 29 CHF

**Suppl. 16 (12/99)** Technical Report TRQ.2140

110pp E 19627 F 19627 S 19627 44 CHF

**Suppl. 17 (12/99)** Technical Report TRQ.2200

56pp E 18912 F 18913 S 18914 29 CHF

**Suppl. 18 (12/99)** Technical Report TRQ.2230

44pp E 18906 F 18907 S 18907 22 CHF

**Suppl. 19 (12/99)** Technical Report TRQ.2300

100pp E 19171 F 19177 S 19178 39 CHF

**Suppl. 20 (12/99)** Technical Report TRQ.2310

67pp E 18934 F 18935 S 18936 29 CHF

**Suppl. 21 (12/99)** Technical Report TRQ.2320

48pp E 18900 F 18901 S 18902 22 CHF

**Suppl. 22 (12/99)** Technical Report TRQ.3000:

Operation of the bearer independent call control (BICC) protocol with digital subscriber signalling system No. 2 (DSS2)

17pp E 18877 F 18878 S 18879 12 CHF

**Suppl. 23 (12/99)** Supplement to ITU-T Q.1901 Recommendation – Technical Report TRQ.3010: Operation of the bearer independent call control (BICC) protocol with AAL type 2 signalling protocol (CS-1)

18pp E 19412 F 19412 S 19414 12 CHF

**Suppl. 24 (12/99)** Technical Report TRQ.3020: Operation of the bearer independent call control (BICC) protocol with broadband integrated services digital network user part (B-ISUP) for AAL Type 1 adaptation

18pp E 19298 F 19299 S 19300 12 CHF

**Suppl. 25 (12/99)** Supplement to ITU-T Q.2900 series Recommendations: Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS2) – User-network interface layer 3 – Overview of B-ISDN DSS2 signalling capabilities

20pp E 16805 F 19327 S 19328 36 CHF



**Suppl. 26 (12/99)** Broadband integrated services digital network (B-ISDN) – Digital subscriber signalling system No. 2 (DSS2) and signalling system No. 7 (B-ISUP) – Support of services over IP-based networks

14pp E 19329 F 19330 S 19331 12 CHF

**Suppl. 27 (12/99)** Technical Report – Overview of Signalling and Protocol Framework for an Emerging Environment (SPFEE)

*Available as a prepublished version*

48pp E 19439 F 19440 S 19441 22 CHF

**Suppl. 28 (12/99)** Technical Report: Signalling and protocol framework for an emerging environment (SPFEE) – Specifications for service access

146pp E 19518 F 19519 S 19519 55 CHF

**Suppl. 29 (12/99)** Service Modelling: Evolution to the use of object oriented techniques

28pp E 19415 F 19416 S 19417 17 CHF

**Suppl. 30 (12/00)** Supplement to ITU-T Recommendation Q.1701: Specifications of international mobile telecommunications-2000 (IMT-2000)

112pp E 20243 F 20244 S 20245

To be published...

**Suppl. 31 (12/00)** Technical report TRQ.2141.0: Signalling requirements for the support of narrowband services over broadband transport technologies – Capability set 2 (CS-2)

34pp E 20767 F 20768 S 20769 17 CHF

**Suppl. 32 (02/04)** Technical Report TRQ.2141.1: Signalling requirements for the support of narrow-band services via broadband transport technologies – CS-2 signalling flows

169pp E 24254 F 24255 S 24256 73 CHF

**Suppl. 33 (12/00)** Supplement 33 (12/00) to Series Q Recommendations – TRQ.2401: Requirements for Q.AAL2 Capability Set 2

20pp E 20596 F 20597 S 20598 12 CHF

**Suppl. 34 (12/00)** Technical report TRQ.2410: Signalling requirements capability set 1 for support of IP bearer control in BICC networks

12pp E 20638 F 20639 S 20640 10 CHF

**Suppl. 35 (12/00)** Technical report TRQ.2500: Signalling requirements for the support of the call bearer control interface (CS-1)

84pp E 20773 F 20774 S 20775 34 CHF

**Suppl. 36 (12/00)** Technical report TRQ.3030: Operation of the bearer independent call control (BICC) protocol (CS-2) with IP bearer control protocol (IPBCP)

14pp E 20641 F 20642 S 20643 12 CHF

**Suppl. 37 (12/00)** DSS1 and DSS2 messages and information element identifiers

20pp E 20599 F 20600 S 20601 12 CHF

**Suppl. 38 (01/04)** Technical report TRQ.2600 – BICC signalling transport requirements, capability set 1

20pp E 20476 F 20477 S 20478 12 CHF

**Suppl. 39 (02/04)** Technical Report TRQ.2700: Requirements for signalling in access networks that support BICC

193pp E 22760 F 22761 S 22762 73 CHF

**Suppl. 40 (02/04)** Technical Report: Reference document on API/object interface between network control and application layer

36pp E 23902 F 23903 S 23904 17 CHF

**Suppl. 41 (02/04)** Technical Report TRQ.2003: Roadmap to the BICC protocol Recommendations, BICC interworking Recommendations, and BICC requirement supplements

26pp E 24017 F 24018 S 24021 17 CHF

## SERIES R Telegraph transmission

### Telegraph distortion

**R.2 (11/88)** Element error rate

*Individually through the Electronic Bookshop:* 20 CHF

**R.4 (11/88)** Methods for the separate measurements of the degrees of various types of telegraph distortion

*Individually through the Electronic Bookshop:* 20 CHF

**R.5 (03/93)** Observation conditions recommended for routine distortion measurements on international telegraph circuits

1pp      E 4710      F 4709      S 4711      8 CHF

**R.9 (03/93)** How the laws governing distribution of distortion should be arrived at

2pp      E 4545      F 4544      S 4546      8 CHF

**R.11 (03/93)** Calculation of the degree of distortion of a telegraph circuit in terms of the degrees of distortion of the component links

2pp      E 5044      F 5043      S 5045      8 CHF

### *Voice-frequency telegraphy*

**R.20 (11/88)** Telegraph modem for subscriber lines

*Individually through the Electronic Bookshop:*      20 CHF

**R.21 (08/96)** 9600 bit/s modem standardized for use in the telegraph TDM system

8pp      E 9643      F 9644      S 9645      9 CHF

**R.22 (08/96)** Data over voice 19200 bit/s modem standardized for use on telephone network subscriber lines

8pp      E 9716      F 9717      S 9718      9 CHF

**R.30 (11/88)** Transmission characteristic for international VFT links

*Individually through the Electronic Bookshop:*      20 CHF

**R.31 (11/88)** Standardization of AMVFT systems for a modulation rate of 50 bauds

*Individually through the Electronic Bookshop:*      20 CHF

**R.35 bis (11/88)** 50-baud wideband VFT systems

*Individually through the Electronic Bookshop:*      20 CHF

**R.35 (11/88)** Standardization of FMVFT systems for a modulation rate of 50 bauds

*Individually through the Electronic Bookshop:*      20 CHF

**R.36 (11/88)** Coexistence of 50-baud/120-Hz channels, 100-baud/240-Hz channels, 200-baud/360-Hz or 480-Hz channels on the same voice-frequency telegraph system

*Individually through the Electronic Bookshop:*      20 CHF

**R.37 (11/88)** Standardization of FMVFT systems for a modulation rate of 100 bauds

*Individually through the Electronic Bookshop:*      20 CHF

**R.38 A (11/88)** Standardization of FMVFT system for a modulation rate of 200 bauds with channels spaced at 480 Hz

*Individually through the Electronic Bookshop:*      20 CHF

**R.38B (11/88)** Standardization of FMVFT systems for a modulation rate of 200 bauds with channels spaced at 360 Hz usable on long intercontinental bearer circuits generally used with a 3-kHz spacing

*Individually through the Electronic Bookshop:*      20 CHF

**R.39 (11/88)** Voice-frequency telegraphy on radio circuits

*Individually through the Electronic Bookshop:*      20 CHF

### *Special cases of alternating current telegraphy*

**R.40 (11/88)** Coexistence in the same cable of telephony and super-telephone telegraphy

*Individually through the Electronic Bookshop:*      20 CHF

**R.43 (11/88)** Simultaneous communication by telephone and telegraph on a telephone-type circuit

*Individually through the Electronic Bookshop:*      20 CHF

**R.44 (11/88)** 6-unit synchronous time-division 2-3-channel multiplex telegraph system for use over FMVFT channels spaced at 120 Hz for connection to standardized teleprinter networks

*Individually through the Electronic Bookshop:*      20 CHF

**R.49 (11/88)** Interband telegraphy over open-wire 3-channel carrier systems

*Individually through the Electronic Bookshop:*      20 CHF

### *Transmission quality*

**R.50 (11/88)** Tolerable limits for the degree of isochronous distortion of code-independent 50-baud telegraph circuits

*Individually through the Electronic Bookshop:*      20 CHF

**R.51 bis (11/88)** Standardized text for testing the elements of a complete circuit

*Individually through the Electronic Bookshop:*      20 CHF

**R.51 (11/88)** Standardized text for distortion testing of the code-independent elements of a complete circuit

*Individually through the Electronic Bookshop:*      20 CHF

**R.52 (11/88)** Standardization of international texts for the measurement of the margin of start-stop equipment

*Individually through the Electronic Bookshop:* 20 CHF

**R.53 (11/88)** Permissible limits for the degree of distortion on an international 50-baud/120-Hz VFT channel (frequency and amplitude modulation)

*Individually through the Electronic Bookshop:* 20 CHF

**R.54 (03/93)** Conventional degree of distortion tolerable for standardized start-stop 50-baud systems

2pp E 4572 F 4571 S 4573 8 CHF

**R.55 (03/93)** Conventional degree of distortion

1pp E 4539 F 4538 S 4540 8 CHF

**R.56 (03/93)** Telegraph distortion limits to be quoted in Recommendations for equipment and transmission plans

1pp E 4596 F 4595 S 4597 8 CHF

**R.57 (11/88)** Standard limits of transmission quality for planning code-independent international point-to-point telegraph communications and switched networks using 50-baud start-stop equipment

*Individually through the Electronic Bookshop:* 20 CHF

**R.58 bis (11/88)** Limits on signal transfer delay for telegraph, telex and gentex networks

*Individually through the Electronic Bookshop:* 20 CHF

**R.58 (11/88)** Standard limits of transmission quality for the gentex and telex networks

*Individually through the Electronic Bookshop:* 20 CHF

**R.59 (11/88)** Interface requirements for 50-baud start-stop telegraph transmission in the maritime mobile satellite service

*Individually through the Electronic Bookshop:* 20 CHF

### *Correction of signals*

**R.60 (11/88)** Conditions to be fulfilled by regenerative repeaters for start-stop signals of International Telegraph Alphabet No. 2

*Individually through the Electronic Bookshop:* 20 CHF

**R.62 (11/88)** Siting of regenerative repeaters in international telex circuits

*Individually through the Electronic Bookshop:* 20 CHF

### *Telegraph maintenance*

**R.70 (11/88)** Designation of international telegraph circuits

*Individually through the Electronic Bookshop:* 20 CHF

**R.70 bis (11/88)** Numbering of international VFT channels

*Individually through the Electronic Bookshop:* 20 CHF

**R.71 (11/88)** Organization of the maintenance of international telegraph circuits

*Individually through the Electronic Bookshop:* 20 CHF

**R.72 (11/88)** Periodicity of maintenance measurements to be carried out on the channels of international VFT systems

*Individually through the Electronic Bookshop:* 20 CHF

**R.73 (11/88)** Maintenance measurements to be carried out on VFT systems

*Individually through the Electronic Bookshop:* 20 CHF

**R.74 (11/88)** Choice of type of telegraph distortion-measuring equipment

*Individually through the Electronic Bookshop:* 20 CHF

**R.75 (11/88)** Maintenance measurements on code-independent international sections of international telegraph circuits

*Individually through the Electronic Bookshop:* 20 CHF

**R.75 bis (11/88)** Maintenance measurements of character error rate on international sections of international telegraph circuits

*Individually through the Electronic Bookshop:* 20 CHF

**R.76 (11/88)** Reserve channels for maintenance measurements on channels of international VFT systems

*Individually through the Electronic Bookshop:* 20 CHF

**R.77 (11/88)** Use of bearer circuits for voice-frequency telegraphy

*Individually through the Electronic Bookshop:* 20 CHF

**R.78 (11/88)** Pilot channel for AMVFT systems

*Individually through the Electronic Bookshop:* 20 CHF

**R.79 (11/88)** Automatic tests of transmission quality on telegraph circuits between switching centres

*Individually through the Electronic Bookshop:* 20 CHF

**R.80 (11/88)** Causes of disturbances to signals in VFT channels and their effect on telegraph distortion

*Individually through the Electronic Bookshop:* 20 CHF

**R.81 (11/88)** Maximum acceptable limit for the duration of interruption of telegraph channels arising from failure of the normal power supplies

*Individually through the Electronic Bookshop:* 20 CHF

**R.82 (11/88)** Appearance of false calling and clearing signals in circuits operated by switched teleprinter services

*Individually through the Electronic Bookshop:* 20 CHF

**R.83 (11/88)** Changes of level and interruptions in VFT channels

*Individually through the Electronic Bookshop:* 20 CHF

**R.90 (11/88)** Organization for locating and clearing faults in international telegraph switched networks

*Individually through the Electronic Bookshop:* 20 CHF

**R.91 (11/88)** General maintenance aspects for the maritime satellite telex service

*Individually through the Electronic Bookshop:* 20 CHF

### *Time-division multiplexing*

**R.100 (03/93)** Transmission characteristics of international TDM links

4pp E 5206 F 5242 S 5278 8 CHF

**R.101 (03/93)** Code and speed dependent TDM system for anisochronous telegraph and data transmission using bit interleaving

14pp E 5300 F 5291 S 5314 11 CHF

**R.102 (03/93)** 4800 bit/s code and speed dependent and hybrid TDM systems for anisochronous telegraph and data transmission using bit interleaving

11pp E 5378 F 5377 S 5379 11 CHF

**R.103 (11/88)** Code and speed-dependent TDM 600 bit/s system for use in point-to-point or branch-line muldex configurations

*Individually through the Electronic Bookshop:* 20 CHF

**R.105 (03/93)** Duplex muldex concentrator, connecting a group of gentex and telex subscribers to a telegraph exchange by assigning virtual channels to time slots of a bit-interleaved TDM system

3pp E 5182 F 5233 S 5268 8 CHF

**R.106 (08/95)** Muldex unit for telegraph and low speed data transmission using TDM bit interleaving with an aggregate bit rate higher than 4800 bit/s

8pp E 6353 F 6354 S 6355 8 CHF

**R.111 (03/93)** Code and speed independent TDM system for anisochronous telegraph and data transmission

9pp E 5187 F 5236 S 5271 11 CHF

**R.112 (03/93)** TDM hybrid system for anisochronous telegraph and data transmission using bit interleaving

3pp E 5176 F 5230 S 5265 8 CHF

**R.113 (03/93)** Combined muldex for telegraphy and synchronous data transmission

5pp E 5178 F 5231 S 5266 8 CHF

**R.114 (03/93)** Numbering of international TDM channels

3pp E 5101 F 5100 S 5102 8 CHF

**R.115 (03/93)** Maintenance loops for TDM-systems

7pp E 5172 F 5227 S 5262 11 CHF

**R.116 (11/88)** Maintenance tests to be carried out on international TDM systems

*Individually through the Electronic Bookshop:* 20 CHF

**R.117 (03/93)** End-to-end error performance for telegraph, telex and gentex connections involving regenerative equipment

4pp E 5104 F 5103 S 5105 8 CHF

**R.118 (03/93)** Performance and availability monitoring in regenerative TDM

1pp E 4665 F 4664 S 4666 8 CHF

### *Transmission quality above 50 bauds*

**R.120 (11/88)** Tolerable limits for the degree of isochronous distortion of code-independent telegraph circuits operating at modulation rates of 75, 100 and 200 bauds

*Individually through the Electronic Bookshop:* 20 CHF

**R.121 (11/88)** Standard limits of transmission quality for start-stop user classes of service 1 and 2 on anisochronous data networks

*Individually through the Electronic Bookshop:* 20 CHF

**R.122 (11/88)** Summary of transmission plans for rates up to 300 bauds  
*Individually through the Electronic Bookshop:* 20 CHF

### Definitions

**R.140 (11/88)** Definitions of essential technical terms in the field of telegraph transmission  
*Individually through the Electronic Bookshop:* 20 CHF

### Availability and reliability of international telegraph circuits

**R.150 (11/88)** Automatic protection switching of dual diversity bearers  
*Individually through the Electronic Bookshop:* 20 CHF

## SERIES S Telegraph services terminal equipment

### Start-stop terminals

**S.1 (03/93)** International Telegraph Alphabet No. 2  
 4pp E 4943 F 4942 S 4944 8 CHF

**S.2 (11/88)** Coding scheme using International Telegraph Alphabet No. 2 (ITA2) to allow the transmission of capital and small letters  
*Individually through the Electronic Bookshop:* 20 CHF

**S.3 (11/88)** Transmission characteristics of the local end with its termination (ITA2)  
*Individually through the Electronic Bookshop:* 20 CHF

**S.4 (03/93)** Special use of certain characters of the International Telegraph Alphabet No. 2  
 4pp E 5014 F 5013 S 5015 8 CHF

**S.5 (11/88)** Standardization of page-printing start-stop equipment and cooperation between page-printing and tape-printing start-stop equipment (ITA2)  
*Individually through the Electronic Bookshop:* 20 CHF

**S.6 (11/88)** Characteristics of answerback units (ITA2)  
*Individually through the Electronic Bookshop:* 20 CHF

**S.7 (11/88)** Control of teleprinter motors  
*Individually through the Electronic Bookshop:* 20 CHF

**S.8 (03/93)** Intercontinental standardization of the modulation rate of start-stop apparatus and of the use of combination No. 4 in figure-shift  
 1pp E 4626 F 4625 S 4627 8 CHF

**S.9 (11/88)** Switching equipment of start-stop apparatus  
*Individually through the Electronic Bookshop:* 20 CHF

**S.10 (11/88)** Transmission at reduced character transfer rate over a standardized 50-baud telegraph channel  
*Individually through the Electronic Bookshop:* 20 CHF

**S.11 (11/88)** Use of start-stop reperforating equipment for perforated tape retransmission  
*Individually through the Electronic Bookshop:* 20 CHF

**S.12 (11/88)** Conditions that must be satisfied by synchronous systems operating in connection with standard 50-baud teleprinter circuits  
*Individually through the Electronic Bookshop:* 20 CHF

**S.13 (11/88)** Use on radio circuits of 7-unit synchronous systems giving error correction by automatic repetition  
*Individually through the Electronic Bookshop:* 20 CHF

**S.14 (11/88)** Suppression of unwanted reception in radiotelegraph multi-destination teleprinter systems  
*Individually through the Electronic Bookshop:* 20 CHF

**S.15 (11/88)** Use of the telex network for data transmission at 50 bauds  
*Individually through the Electronic Bookshop:* 20 CHF

**S.16 (03/93)** Connection to the telex network of an automatic terminal using a V.24 DCE/DTE interface  
 11pp E 5089 F 5088 S 5090 11 CHF

**S.17 (11/88)** Answer-back unit simulators  
*Individually through the Electronic Bookshop:* 20 CHF

**S.18 (11/88)** Conversion between International Telegraph Alphabet No. 2 and International Alphabet No. 5  
*Individually through the Electronic Bookshop:* 20 CHF

**S.19 (11/88)** Calling and answering in the telex network with automatic terminal equipment  
*Individually through the Electronic Bookshop:* 20 CHF



- S.20 (03/93)** Automatic clearing procedure for a telex terminal  
2pp E 4605 F 4604 S 4606 8 CHF
- S.21 (03/93)** Use of display screens in telex machines  
2pp E 4608 F 4607 S 4609 8 CHF
- S.22 (03/93)** "Conversation impossible" and or pre-recorded message in response to J/BELL signals from a telex terminal  
2pp E 4644 F 4643 S 4645 8 CHF
- S.23 (03/93)** Automatic request of the answerback of the terminal of the calling party, by the telex terminal of the called party or by the international network  
2pp E 4623 F 4622 S 4624 8 CHF
- S.30 (11/88)** Standardization of basic model page-printing machine using International Alphabet No. 5  
*Individually through the Electronic Bookshop:* 20 CHF
- S.31 (11/88)** Transmission characteristics for start-stop data terminal equipment using International Alphabet No. 5  
*Individually through the Electronic Bookshop:* 20 CHF
- S.32 (11/88)** Answer-back units for 200- and 300-baud start-stop machines in accordance with Recommendation S.30  
*Individually through the Electronic Bookshop:* 20 CHF
- S.33 (03/93)** Alphabets and presentation characteristics for the intex service  
5pp E 5038 F 5037 S 5039 8 CHF
- S.34 (03/93)** Intex terminals – Requirements to effect interworking with the international telex service  
3pp E 4528 F 4527 S 4529 8 CHF
- S.35 (03/93)** Answerback coding for the Intex service  
3pp E 4713 F 4712 S 4714 8 CHF
- S.36 (07/96)** INTEX and similar services – Terminal requirements to effect interworking between terminals operating at different speeds  
4pp E 7459 F 7460 S 7461 9 CHF

## Definitions

- S.140 (11/88)** Definitions of essential technical terms relating to apparatus for alphabetic telegraphy  
*Individually through the Electronic Bookshop:* 20 CHF

## Supplements to the Series S Recommendations

- Suppl. 1 (11/88)** Minimal specifications for the bilingual (arabic/latin) teleprinter  
20 CHF

## SERIES T Terminals for telematic services

- T.0 (07/96)** Classification of facsimile terminals for document transmission over the public networks  
4pp E 7099 F 7100 S 7101 9 CHF

- T.1 (11/88)** Standardization of phototelegraph apparatus  
*Individually through the Electronic Bookshop:* 20 CHF

- T.2 (11/88) Withdrawn (07/96)**  
Standardization of Group 1 facsimile apparatus for document transmission  
*Withdrawn in 07/1996 in recognition of the fact that Group 1 stand-alone terminals had not been manufactured for many years and that Group 3 facsimile terminals were the only type being used on the PSTN*  
*Individually through the Electronic Bookshop:*

- T.3 (11/88) Withdrawn (07/96)**  
Standardization of Group 2 facsimile apparatus for document transmission  
*Withdrawn in 07/1996 in recognition of the fact that Group 2 stand-alone terminals had not been manufactured for many years and that Group 3 facsimile terminals were the only type being used on the PSTN*  
*Individually through the Electronic Bookshop:*

## General

- T.4 (07/03)** Standardization of Group 3 facsimile terminals for document transmission  
75pp E 24901 F 24902 S 24903 34 CHF

- T.5/G.511 (02/98)** Test methodology for Group 3 facsimile processing equipment in the Public Switched Telephone Network  
*This text was first approved and published as ITU-T Rec. G.511, and then renumbered as T.5 on 2002-02-15 without further modification*  
To be published...



**T.6 (11/88)** Facsimile coding schemes and coding control functions for group 4 facsimile apparatus

*Individually through the Electronic Bookshop:* 20 CHF

**T.10 (11/88)** Document facsimile transmissions on leased telephone-type circuits

*Individually through the Electronic Bookshop:* 20 CHF

**T.10 bis (11/88)** Document facsimile transmissions in the general switched telephone network

*Individually through the Electronic Bookshop:* 20 CHF

**T.11 (11/88) Withdrawn (10/96)**

Phototelegraph transmissions on telephone-type circuit

*This Recommendation was also included but not published in H series under alias number H.41. It was deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**T.12 (11/88) Withdrawn (10/96)**

Range of phototelegraph transmissions on a telephone-type circuit

*This Recommendation was also included but not published in H series under alias number H.42. It was deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**T.15 (11/88) Withdrawn (10/96)**

Phototelegraph transmission over combined radio and metallic circuits

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**T.20 (11/88) Withdrawn (01/95)**

Standardized test chart for facsimile transmissions

*T.20 and T.21 are superseded by ITU-T T.22, and the test charts 1, 2 and 3 they described are replaced by test charts 4 and 5 of T.22*

*Individually through the Electronic Bookshop:*

**T.21 (11/88) Withdrawn (01/95)**

Standardized test charts for document facsimile transmissions

*T.20 and T.21 are superseded by ITU-T T.22, and the test charts 1, 2 and 3 they described are replaced by test charts 4 and 5 of T.22*

*Individually through the Electronic Bookshop:*

**T.22 (03/93)** Standardized test charts for document facsimile transmissions

*Figures reproducing test charts in T.22 Annex A are not suited for measurements. Original test charts are available from ITU sales department.*

9pp E 4002 F 4001 S 4003 11 CHF

**T.23 (04/94)** Standardized colour test chart for document facsimile transmissions

*Figure reproducing test charts in T.23 Annex A is not suited for measurements. Original test chart is available from ITU sales department.*

7pp E 5591 F 5590 S 5592 11 CHF

**T.24 (06/98)** Standardized digitized image set

*This Recommendation includes 2 CD-ROMs containing the digitized image set. Due to the data large volume, this Recommendation is not downloadable from the Electronic Bookshop and should be provided from ITU Sales department (Email Sales@itu.int). ITU-T Rec. T.24 text is downloadable free of charge for information purpose. The specimens reproduced inside this text are given for illustration purposes and are not suitable for measurements.*

62pp E 16670 F 16671 S 16672 154 CHF

**T.24 (1998) Amendment 1 (02/00)**

*To be published*

*To be published...*

**T.30 (07/03)** Procedures for document facsimile transmission in the general switched telephone network

319pp E 25063 F 25064 S 25065 124 CHF

**T.30 (2003) Erratum 1 (04/04)**

*Applies only to English version*

**T.31 (08/95)** Asynchronous facsimile DCE control – Service Class 1

23pp E 6324 F 6325 S 6326 15 CHF

**T.31 (1995) Amendment 1 (07/96)** Annex B: Procedure for Service Class 1 support of V.34 modems

20pp E 7493 F 7494 S 7495 17 CHF

**T.32 (08/95)** Asynchronous facsimile DCE control – Service Class 2

*Covering Note 30.10.1997: Corrigendum*

80pp E 6489 F 6490 S 6491 30 CHF

<b>T.32 (1995) Amendment 1 (07/96)</b>				
8pp	E 7436	F 7437	S 7438	9 CHF
<b>T.33 (07/96)</b> Facsimile routing utilizing the Subaddress				
16pp	E 7462	F 7463	S 7464	12 CHF
<b>T.35 (02/00)</b> Procedure for the allocation of ITU-T defined codes for non-standard facilities				
12pp	E 18405	F 18406	S 18407	12 CHF
<b>T.36 (07/97)</b> Security capabilities for use with Group 3 facsimile terminals				
40pp	E 11638	F 11639	S 11640	22 CHF
<b>T.36 (1997) Amendment 1 (04/99)</b>				
8pp	E 16147	F 16148	S 16149	9 CHF
<b>T.37 (06/98)</b> Procedures for the transfer of facsimile data via store-and-forward on the Internet				
12pp	E 13917	F 13918	S 13919	12 CHF
<b>T.37 (1998) Amendment 1 (09/99)</b> Full Mode				
60pp	E 17744	F 17745	S 17746	29 CHF
<b>T.37 (1998) Amendment 2 (03/01)</b>				
8pp	E 19555	F 19556	S 19557	9 CHF
<b>T.37 (1998) Amendment 3 (11/02)</b>				
8pp	E 23082	F 23083	S 23084	9 CHF
<b>T.38 (03/02)</b> Procedures for real-time Group 3 facsimile communication over IP networks				
78pp	E 22572	F 22573	S 22574	34 CHF
<b>T.38 (07/03)</b> Procedures for real-time Group 3 facsimile communication over IP networks				
<i>To be published</i>				
To be published...				
<b>T.38 (2002) Amendment 1 (07/03)</b> Support for half-duplex V.34 and V.150.1 interworking				
To be published...				
<b>T.38 (2002) Amendment 2 (04/04)</b> Support for optional RTP encapsulation, clarification of version negation procedures and modification of 'no-signal'				
To be published...				
<b>T.38 (2002) Amendment 3 (01/04)</b> Appendix V – T.38 Implementation Guidelines				
To be published...				
<b>T.39 (10/97)</b> Application profiles for simultaneous voice and facsimile terminals				
16pp	E 12674	F 12675	S 12676	12 CHF

<b>T.42 (07/03)</b>	Continuous-tone colour representation method for facsimile			
18pp	E 24688	F 24689	S 24690	12 CHF
<b>T.42 (2003) Corrigendum 1 (03/04)</b>				
<b>T.43 (07/97)</b>	Colour and gray-scale image representations using lossless coding scheme for facsimile			
16pp	E 11629	F 11630	S 11631	12 CHF
<b>T.43 (1997) Amendment 1 (02/00)</b>	Accommodation of new and future Resolutions			
8pp	E 18365	F 18366	S 18367	9 CHF
<b>T.44 (04/99)</b>	Mixed raster content (MRC)			
40pp	E 16549	F 16550	S 16551	22 CHF
<b>T.44 (1999) Amendment 1 (02/00)</b>	Accommodation of new Annex B			
28pp	E 18434	F 18435	S 18436	17 CHF
<b>T.45 (02/00)</b>	Run-length colour encoding			
8pp	E 18362	F 18363	S 18364	9 CHF
<b>T.50 (09/92)</b>	International Reference Alphabet (IRA) (Formerly International Alphabet No. 5 or IA5) – Information technology – 7-bit coded character set for information interchange			
20pp	E 3177	F 3176	S 3178	15 CHF
<b>T.51 (09/92)</b>	Latin based coded character sets for telematic services			
26pp	E 3224	F 3223	S 3225	15 CHF
<b>T.51 (1992) Amendment 1 (08/95)</b>				
8pp	E 6603	F 6604	S 6605	8 CHF
<b>T.52 (03/93)</b>	Non-latin coded character sets for telematic services			
88pp	E 4416	F 4415	S 4417	33 CHF
<b>T.52 (1993) Amendment 1 (10/96)</b>				
8pp	E 10633	F 10634	S 10635	9 CHF
<b>T.53 (04/94)</b>	Character coded control functions for telematic services			
68pp	E 5462	F 5461	S 5463	29 CHF
<b>T.60 (03/93)</b>	<b>Withdrawn (05/00)</b>			
Terminal equipment for use in the teletex service				
<i>Deleted as a consequence of the suppression of Teletex service</i>				
21pp	E 5594	F 5593	S 5595	15 CHF
<b>T.61 (03/93)</b>	<b>Withdrawn (08/95)</b>			
Character repertoire and coded character sets for the international teletex service				
<i>Never published. Deleted as a consequence of the suppression of Teletex service</i>				

**T.62 bis (03/93)** Control procedures for teletex and G4 facsimile services based on Recommendations X.215 and X.225

30pp E 5526 F 5525 S 5527 15 CHF

**T.62 (03/93)** Control procedures for teletex and Group 4 facsimile services

163pp E 5597 F 5596 S 5598 65 CHF

**T.63 (03/93) Withdrawn (05/00)**

Provisions for verification of teletex terminal compliance

*Deleted as a consequence of the suppression of Teletex service*

21pp E 5170 F 5226 S 5261 15 CHF

**T.64 (03/93) Withdrawn (05/00)**

Conformance testing procedures for the teletex Recommendations

*Deleted as a consequence of the suppression of Teletex service*

123pp E 5391 F 5390 S 5392 42 CHF

**T.65 (11/88) Withdrawn (07/99)**

Applicability of telematic protocols and terminal characteristics to computerized communication terminals (CCTs)

*This Recommendation was deleted in 07/1999 as it was no longer applicable due to changes in technology*

*Individually through the Electronic Bookshop:* 20 CHF

**T.66 (03/02)** Facsimile code points for use with Recommendations V.8 and V.8 bis

14pp E 22239 F 22240 S 22241 12 CHF

**T.70 (03/93)** Network-independent basic transport service for the telematic services

57pp E 5417 F 5416 S 5418 24 CHF

**T.71 (11/88)** Link access protocol balanced (LAPB) extended for half-duplex physical level facility

*Individually through the Electronic Bookshop:* 20 CHF

**T.80 (09/92)** Common components for image compression and communication – Basic principles

11pp E 3435 F 3434 S 3436 11 CHF

**T.81 (09/92)** Information technology – Digital compression and coding of continuous-tone still images – Requirements and guidelines

Common text with ISO/IEC

182pp E 4466 F 5222 S 5257 61 CHF

**T.81 (1992) Amendment 1 (01/04)** Patent information update

To be published...

**T.82 (03/93)** Information technology – Coded representation of picture and audio information – Progressive bi-level image compression

Common text with ISO/IEC

71pp E 4467 F 5239 S 5275 29 CHF

**T.82 (1993) Technical Cor.1 (03/95)**

**T.82 (1993) Technical Cor.2 (03/01)**

**T.83 (11/94)** Information technology – Digital compression and coding of continuous-tone still images: Compliance testing

Common text with ISO/IEC

*This Recommendation includes 3 diskettes containing compliance test data for the generic encoder and decoder compliance tests.*

64pp E 10229 F 10230 S 10231 99 CHF

**T.84 (07/96)** Information technology – Digital compression and coding of continuous-tone still images: Extensions

84pp E 7496 F 7497 S 7498 34 CHF

**T.84 (1996) Amendment 1 (04/99)** Provisions to allow registration of new compression types and versions in the SPIFF header

8pp E 16033 F 16034 S 16035 9 CHF

**T.85 (08/95)** Application profile for Recommendation T.82 – Progressive bi-level image compression (JBIG coding scheme) for facsimile apparatus

3pp E 6281 F 6282 S 6283 8 CHF

**T.85 (1995) Amendment 1 (10/96)**

8pp E 10860 F 10861 S 10862 9 CHF

**T.85 (1995) Amendment 2 (10/97)**

*Covering note: 7 February 2000: French, Spanish only.*

8pp E 12391 F 12392 S 12393 9 CHF

**T.85 (1995) Corrigendum 1 (02/97)**

**T.86 (06/98)** Information technology – Digital compression and coding of continuous-tone still images: Registration of JPEG Profiles, SPIFF Profiles, SPIFF Tags, SPIFF colour Spaces, APPn Markers, SPIFF Compression types and Registration Authorities (REGAUT)

Common text with ISO/IEC

*Covering note, February 1999: Corrigendum*

36pp E 14023 F 14024 S 14025 17 CHF

**T.87 (06/98)** Information Technology – Lossless and near-lossless compression of continuous-tone still images – Baseline

Common text with ISO/IEC

*This Recommendation includes one diskette containing the JPEG-LS Lossless and near-lossless image compression reference implementation and a conformance testing image set.*

72pp E 15804 F 15805 S 15806 74 CHF

**T.88 (02/00)** Information technology – Coded representation of picture and audio information – Lossy/lossless coding of bi-level images

165pp E 18592 F 18593 S 18594 73 CHF

**T.88 (2000) Amendment 1 (06/03)** Encoder

To be published...

**T.88 (2000) Amendment 2 (06/03)** Extension of adaptive templates for halftone coding

16pp E 24098 F 24099 S 24100 12 CHF

**T.89 (09/01)** Application profiles for Recommendation T.88 – Lossy/lossless coding of bi-level images (JBIG2) for facsimile

24pp E 22191 F 22192 S 22193 12 CHF

**T.90 (02/92)** Characteristics and protocols for terminals for telematic services in ISDN

58pp E 2809 F 2771 S 2844 24 CHF

**T.90 (1992) Amendment 1 (11/94)** Characteristics and protocols for terminals for telematic services in ISDN

18pp E 5686 F 5685 S 5687 15 CHF

**T.90 (1992) Amendment 2 (07/96)**

8pp E 7341 F 7342 S 7343 9 CHF

**T.90 (1992) Amendment 3 (06/98)** Cause value for a G4 fax fallback

8pp E 13604 F 13605 S 13606 17 CHF

**T.100 (11/88)** International information exchange for interactive videotex

*Individually through the Electronic Bookshop:* 22 CHF

**T.101 (11/94)** International interworking for videotex services

826pp E 6251 F 6252 S 6253 248 CHF

**T.102 (03/93)** Syntax-based videotex end-to-end protocols for the circuit mode ISDN

6pp E 5116 F 5115 S 5117 8 CHF

**T.103 (03/93)** Syntax-based videotex end-to-end protocols for the packet mode ISDN

60pp E 5414 F 5413 S 5415 29 CHF

**T.104 (03/93)** Packet mode access for syntax-based videotex via PSTN

13pp E 5155 F 5219 S 5254 11 CHF

**T.105 (11/94)** Syntax-based videotex application layer protocol

85pp E 5689 F 5688 S 5690 34 CHF

**T.106 (03/93)** Framework of videotex terminal protocols

3pp E 5209 F 5244 S 5280 8 CHF

**T.107 (08/95)** Enhanced man machine interface for videotex and other retrieval services (VEMMI)

128pp E 6650 F 6651 S 6652 44 CHF

**T.120 (07/96)** Data protocols for multimedia conferencing

24pp E 7406 F 7407 S 7408 17 CHF

**T.120 Annex C (02/98)** Lightweight profiles for the T.120 architecture

24pp E 13525 F 13526 S 13527 17 CHF

**T.121 (07/96)** Generic application template

44pp E 9551 F 9552 S 9553 22 CHF

**T.122 (02/98)** Multipoint communication service – Service definition

44pp E 13400 F 13401 S 13402 22 CHF

**T.123 (05/99)** Network-specific data protocol stacks for multimedia conferencing

76pp E 16845 F 16846 S 16847 34 CHF

**T.124 (02/98)** Generic Conference Control

212pp E 13979 F 13980 S 13981 96 CHF

**T.125 (02/98)** Multipoint communication service protocol specification

144pp E 13784 F 13785 S 13786 55 CHF

**T.126 (07/97)** Multipoint still image and annotation protocol

132pp E 12251 F 12252 S 12253 55 CHF

**T.127 (08/95)** Multipoint binary file transfer protocol

60pp E 6432 F 6433 S 6434 25 CHF

**T.128 (02/98)** Multipoint application sharing

216pp E 13727 F 13728 S 13729 96 CHF

<b>T.134 (02/98)</b>	Text chat application entity				
16pp	E 13015	F 13016	S 13017	12	CHF
<b>T.135 (02/98)</b>	User-to-reservation system transactions within T.120 conferences				
76pp	E 13237	F 13239	S 13240	34	CHF
<b>T.136 (05/99)</b>	Remote device control application protocol				
12pp	E 16546	F 16547	S 16548	12	CHF
<b>T.137 (02/00)</b>	Virtual meeting room management – services and protocol				
140pp	E 18730	F 18731	S 18732	55	CHF
<b>T.140 (02/98)</b>	Protocol for multimedia application text conversation				
16pp	E 13315	F 13316	S 13317	12	CHF
<b>T.140 Addendum 1 (02/00)</b>	Addendum 1				
10pp	E 18739	F 18740	S 18741	9	CHF
<b>T.150 (11/88)</b>	Telewriting terminal equipment				
<i>Individually through the Electronic Bookshop:</i>				29	CHF
<b>T.170 (02/98)</b>	Framework of the T.170-Series of Recommendations				
8pp	E 12860	F 12861	S 12862	9	CHF
<b>T.171 (10/96)</b>	Protocols for interactive audiovisual services: coded representation of multimedia and hypermedia objects				
332pp	E 11036	F 11037	S 11038	124	CHF
<b>T.172 (02/98)</b>	MHEG-5 – Support for base-level interactive applications				
236pp	E 13389	F 13390	S 13391	96	CHF
<b>T.173 (07/97)</b>	MHEG-3 script interchange representation				
148pp	E 12296	F 12297	S 12298	61	CHF
<b>T.174 (10/96)</b>	Application programming interface (API) for MHEG-1				
192pp	E 11096	F 11097	S 11098	73	CHF
<b>T.175 (02/98)</b>	Application Programming Interface (API) for MHEG-5				
32pp	E 12851	F 12852	S 12853	17	CHF
<b>T.176 (02/98)</b>	Application Programming Interface (API) for Digital Storage Media Command and Control (DSM-CC)				
16pp	E 12854	F 12855	S 12856	12	CHF
<b>T.180 (06/98)</b>	Homogeneous access mechanism to communication services				
332pp	E 14561	F 14562	S 14563	124	CHF

<b>T.190 (08/95)</b>	Cooperative document handling (CDH) – Framework and basic services				
76pp	E 6834	F 6835	S 6836	34	CHF

<b>T.191 (07/96)</b>	Cooperative document handling (CDH) – Joint synchronous editing (point-to-point)				
32pp	E 9577	F 9578	S 9579	17	CHF

<b>T.192 (06/98)</b>	Cooperative Document Handling – Complex services: Joint synchronous editing and joint document presentation/viewing				
60pp	E 13892	F 13893	S 13894	29	CHF

**T.200 (10/96)      Withdrawn (07/99)**  
Programmable communication interface for terminal equipment connected to ISDN

*This Recommendation had been approved at the WTSC 1996. In its Appendix, it describes one of the programmable communication interfaces which were available on the market at that time. Although such an interface does not affect the communication between networks but is rather a matter for implementation at a local computer (e.g. PC), the related study Question had been accepted at the WTSC-96 to promote computer communication via the ISDN, and thus the growth of the ISDNs. After 1996, the quick market development made further studies in the ITU-T obsolete. ITU-T came to the conclusion that it would be appropriate to delete T.200 in order to avoid any further maintenance work which might bind resources unnecessarily*

348pp	E 11182	F 11183	S 11184	124	CHF
-------	---------	---------	---------	-----	-----

<b>T.300 (11/88)</b>	General principles of telematic interworking				
<i>Individually through the Electronic Bookshop:</i>				20	CHF

<b>T.330 (11/88)</b>	Telematic access to interpersonal messaging system				
<i>Individually through the Electronic Bookshop:</i>				39	CHF

<b>T.351 (11/88)</b>	Imaging process of character information on facsimile apparatus				
<i>Individually through the Electronic Bookshop:</i>				20	CHF

<b>T.390 (11/88)</b>	Teletex requirements for interworking with the telex service				
<i>Individually through the Electronic Bookshop:</i>				20	CHF

**T.400 (11/88)      Withdrawn (10/96)**  
Introduction to document architecture, transfer and manipulation

*Deleted after its content became technically out of date*  
*Individually through the Electronic Bookshop:*

**T.411 (03/93)** Information technology – Open Document Architecture (ODA) and interchange format: Introduction and general principles  
Common text with ISO/IEC  
77pp E 5193 F 11783 S 11784 33 CHF

**T.411 (1993) Technical Cor. 1 (10/97)**

**T.412 (03/93)** Information technology – Open Document Architecture (ODA) and interchange format: Document structures  
Common text with ISO/IEC  
260pp E 5605 F 5935 S 5706 91 CHF

**T.412 (1993) Technical Cor. 1 (10/97)**

**T.412 (1993) Technical Cor. 2 (10/97)**

**T.413 (11/94)** Information technology – Open Document Architecture (ODA) and interchange format: Abstract interface for the manipulation of ODA documents  
Common text with ISO/IEC  
24pp E 5936 F 6732 S 6719 15 CHF

**T.414 (03/93)** Information technology – Open Document Architecture (ODA) and interchange format: Document profile  
Common text with ISO/IEC  
31pp E 5141 F 5638 S 5637 20 CHF

**T.414 (1993) Technical Cor. 1 (10/97)**

**T.414 (1993) Technical Cor. 2 (10/97)**

**T.415 (03/93)** Information technology – Open Document Architecture (ODA) and interchange format: Open Document Interchange Format (ODIF)  
Common text with ISO/IEC  
103pp E 5144 F 5937 S 5938 38 CHF

**T.415 (1993) Technical Cor. 1 (10/97)**

**T.415 (1993) Technical Cor. 2 (10/97)**

**T.416 (03/93)** Information technology – Open Document Architecture (ODA) and interchange format: Character content architectures  
Common text with ISO/IEC  
68pp E 5389 F 5982 S 5707 29 CHF

**T.416 (1993) Technical Cor. 1 (10/97)**

**T.417 (03/93)** Information technology – Open Document Architecture (ODA) and interchange format: Raster graphics content architectures  
Common text with ISO/IEC  
48pp E 5083 F 5635 S 5636 20 CHF

**T.417 (1993) Amendment 1 (10/97)**

20pp E 12725 F 12726 S 12727 17 CHF

**T.417 (1993) Amendment 2 (02/00)** Amendment 2  
8pp E 17998 F 17999 S 18000 9 CHF

**T.417 (1993) Technical Cor. 1 (10/97)**

**T.418 (03/93)** Information technology – Open Document Architecture (ODA) and interchange format: Geometric graphics content architecture  
Common text with ISO/IEC  
44pp E 5084 F 5639 S 5708 20 CHF

**T.419 (08/95)** Information technology – Open Document Architecture (ODA) and interchange format: Audio content architectures  
Common text with ISO/IEC  
32pp E 6742 F 9877 S 9878 17 CHF

**T.421 (11/94)** Information technology – Open Document Architecture (ODA) and interchange format: Tabular structures and tabular layout  
Common text with ISO/IEC  
129pp E 6028 F 7012 S 7013 49 CHF

**T.422 (08/95)** Information technology – Open Document Architecture (ODA) and interchange format – Identification of document fragments  
Common text with ISO/IEC  
32pp E 6357 F 6746 S 6724 15 CHF

**T.424 (07/96)** Information technology – Open Document Architecture (ODA) and interchange format: Temporal relationships and non-linear structures  
Common text with ISO/IEC  
56pp E 9634 F 9635 S 9636 29 CHF

**T.431 (09/92)** Document Transfer And Manipulation (DTAM) – Services and protocols – Introduction and general principles  
14pp E 3483 F 3482 S 3484 11 CHF

**T.432 (09/92)** Document Transfer And Manipulation (DTAM) – Services and protocols – Service definition  
36pp E 3513 F 3512 S 3514 20 CHF



**T.432 (1992) Amendment 1 (08/95)** Revisions of T.432 to support G4 colour and file transfer  
3pp E 6362 F 6363 S 6364 8 CHF

**T.433 (09/92)** Document Transfer And Manipulation (DTAM) – Services and protocols – Protocol specification  
82pp E 3652 F 3651 S 3653 33 CHF

**T.433 (1992) Amendment 1 (08/95)** Revisions of T.433 to support G4 colour and file transfer  
5pp E 6303 F 6304 S 6305 8 CHF

**T.434 (04/99)** Binary file transfer format for the telematic services  
24pp E 17281 F 17282 S 17283 17 CHF

**T.435 (08/95)** Document Transfer And Manipulation (DTAM) – Services and protocols – Abstract service definition and procedures for confirmed document manipulation  
64pp E 6683 F 6684 S 6685 25 CHF

**T.436 (08/95)** Document Transfer And Manipulation (DTAM) – Services and protocols – Protocol specifications for confirmed document manipulation  
12pp E 6597 F 6598 S 6599 11 CHF

**T.441 (11/88)** Document Transfer And Manipulation (DTAM) – Operational structure  
*Individually through the Electronic Bookshop:* 20 CHF

**T.501 (03/93)** Document application profile mm for the interchange of formatted mixed mode documents  
21pp E 5532 F 5531 S 5533 15 CHF

**T.502 (11/94)** Document application profile PM-11 for the interchange of simple structure, character content documents in processable and formatted forms  
52pp E 5692 F 5691 S 5693 25 CHF

**T.503 (02/00)** A document application profile for the interchange of Group 4 facsimile documents  
E 19106 F 19107 S 19108 22 CHF

**T.504 (03/93)** Document application profile for videotex interworking  
7pp E 5306 F 5293 S 5316 11 CHF

**T.505 (11/94)** Document application profile PM-26 for the interchange of enhanced structure, mixed content documents in processable and formatted forms  
100pp E 6080 F 6079 S 6081 39 CHF

**T.506 (08/93)** Document application profile PM-36 for the interchange of extended document structures and mixed content documents in processable and formatted forms  
180pp E 5607 F 5606 S 5608 65 CHF

**T.510 (03/93)** General overview of the T.510-Series Recommendations  
12pp E 5298 F 5289 S 5312 11 CHF

**T.521 (11/94)** Communication application profile BT0 for document bulk transfer based on the session service  
15pp E 5940 F 5939 S 5941 15 CHF

**T.521 (1994) Amendment 1 (08/95)** Communication application profile BT0 for document bulk transfer based on the session service – Amendment 1  
3pp E 6300 F 6301 S 6302 8 CHF

**T.522 (09/92)** Communication application profile BT1 for document bulk transfer  
5pp E 3319 F 3318 S 3320 8 CHF

**T.523 (03/93)** Communication application profile DM-1 for videotex interworking  
19pp E 5381 F 5380 S 5382 15 CHF

**T.541 (03/93)** Operational application profile for videotex interworking  
21pp E 5305 F 5292 S 5315 15 CHF

**T.561 (11/88)** Terminal characteristics for mixed mode of operation mm  
*Individually through the Electronic Bookshop:* 20 CHF

**T.562 (11/88)** Terminal characteristics for teletex processable mode PM.1  
*Individually through the Electronic Bookshop:* 20 CHF

**T.563 (10/96)** Terminal characteristics for Group 4 facsimile apparatus  
28pp E 11039 F 11040 S 11041 17 CHF

**T.563 (1996) Amendment 1 (07/97)**  
8pp E 11230 F 11231 S 11232 9 CHF

**T.563 (1996) Amendment 2 (10/97)** Annex C – T.30 frames for G4 facsimile  
8pp E 12502 F 12503 S 12504 9 CHF

**T.563 (1996) Amendment 3 (04/99)**  
8pp E 16223 F 16224 S 16225 9 CHF

**T.563 (1996) Corrigendum 1 (06/98)**

**T.564 (03/93)** Gateway characteristics for videotex interworking  
30pp E 5538 F 5537 S 5539 15 CHF

**T.571 (09/92)** Terminal characteristics for the telematic file transfer within the teletex service

11pp E 3552 F 3551 S 3553 11 CHF

**T.611 (11/94)** Programming Communication Interface (PCI) APPLI/COM for facsimile Group 3, facsimile Group 4, teletex, telex, E-mail and file transfer services

228pp E 6047 F 6046 S 6048 75 CHF

**T.800 (08/02)** Information technology – JPEG 2000 image coding system: Core coding system

212pp E 23644 S 23646 96 CHF

**T.801 (08/02)** Information technology – JPEG 2000 image coding system: Extensions

334pp E 23650 124 CHF

**T.803 (11/02)** Information technology – JPEG 2000 image coding system: Conformance testing

To be published...

**T.804 (08/02)** Information technology – JPEG 2000 image coding system: Reference software

E 22631 F 22632 S 22633 67 CHF

**T.870 (03/02)** Information technology – Lossless and near-lossless compression of continuous-tone still images: Extensions

*This Recommendation includes an electronic attachment containing the data set used for implementing the JPEG-LS T.870 extension conformance test*

66pp E 22287 F 22288 S 22289 79 CHF

## SERIES U

### Telegraph switching

#### General

**U.1 (03/93)** Signalling conditions to be applied in the international telex service

11pp E 4970 F 4969 S 4971 11 CHF

**U.2 (11/88)** Standardization of dials and dial pulse generators for the international telex service

*Individually through the Electronic Bookshop:* 20 CHF

**U.3 (11/88)** Arrangements in switching equipment to minimize the effects of false calling signals

*Individually through the Electronic Bookshop:* 20 CHF

**U.4 (11/88)** Exchange of information regarding signals destined to be used over international circuits concerned with switched teleprinter networks

*Individually through the Electronic Bookshop:* 20 CHF

**U.5 (11/88)** Requirements to be met by regenerative repeaters in international connections

*Individually through the Electronic Bookshop:* 20 CHF

**U.6 (11/88)** Prevention of fraudulent transit traffic in the fully automatic international telex service

*Individually through the Electronic Bookshop:* 20 CHF

**U.7 (03/93)** Numbering schemes for automatic switching networks

1pp E 4569 F 4568 S 4570 8 CHF

**U.8 (11/88)** Hypothetical reference connections for telex and gentex networks

*Individually through the Electronic Bookshop:* 20 CHF

**U.10 (03/93)** Equipment of an international telex position

1pp E 4614 F 4613 S 4615 8 CHF

#### *Specific signalling schemes and interworking between signalling systems*

**U.11 (03/93)** Telex and gentex signalling on intercontinental circuits used for intercontinental automatic transit traffic (type c signalling)

15pp E 4973 F 4972 S 4974 11 CHF

**U.12 (03/93)** Terminal and transit control signalling system for telex and similar services on international circuits (type D signalling)

24pp E 5184 F 5234 S 5269 15 CHF

**U.15 (03/93)** Interworking rules for international signalling systems according to Recommendations U.1, U.11 and U.12

8pp E 5107 F 5106 S 5108 8 CHF

#### *Signalling over radio and multiplexed channels*

**U.20 (11/88)** Telex and gentex signalling on radio channels (synchronous 7-unit systems affording error correction by automatic repetition)

*Individually through the Electronic Bookshop:* 20 CHF

**U.21 (11/88)** Operator recall on a telex call set up on a radiotelegraph circuit

*Individually through the Electronic Bookshop:* 20 CHF

**U.22 (11/88)** Signals indicating delay in transmission on calls set up by means of synchronous systems with automatic error correction by repetition

*Individually through the Electronic Bookshop:* 20 CHF

**U.23 (11/88)** Use of radiotelegraph circuits with ARQ equipment for fully automatic telex calls charged on the basis of elapsed time

*Individually through the Electronic Bookshop:* 20 CHF

**U.24 (11/88)** Requirements for telex and gentex operation to be met by synchronous multiplex equipment described in Recommendation R.44

*Individually through the Electronic Bookshop:* 20 CHF

**U.25 (11/88)** Requirements for telex and gentex operation to be met by code- and speed-dependent TDM systems conforming to Recommendation R.101

*Individually through the Electronic Bookshop:* 20 CHF

### *Gentex signalling*

**U.30 (11/88)** Signalling conditions for use in the international gentex network

*Individually through the Electronic Bookshop:* 20 CHF

**U.31 (11/88)** Prevention of connection to faulty stations and/or station lines in the gentex service

*Individually through the Electronic Bookshop:* 20 CHF

### *Particular signalling facilities*

**U.40 (03/93)** Reactions by automatic terminals connected to the telex network in the event of ineffective call attempts or signalling incidents

4pp E 4976 F 4975 S 4977 8 CHF

**U.41 (11/88)** changed address interception and call redirection in the telex service

*Individually through the Electronic Bookshop:* 20 CHF

**U.43 (11/88)** Follow-on calls

*Individually through the Electronic Bookshop:* 20 CHF

**U.44 (11/88)** Multi-address calls in real time for broadcast purposes in the international telex service

*Individually through the Electronic Bookshop:* 20 CHF

**U.45 (03/93)** Response to the not-ready condition of the telex terminal

3pp E 4979 F 4978 S 4980 8 CHF

**U.46 (03/93)** Interruption of automatic transmission and flow control in the international telex service

2pp E 4249 F 4248 S 4250 8 CHF

### *Radiotelex interworking*

**U.60 (11/88)** General requirements to be met in interfacing the international telex network with maritime satellite systems

*Individually through the Electronic Bookshop:* 20 CHF

**U.61 (03/93)** Detailed requirements to be met in interfacing the international telex network with maritime satellite systems

10pp E 5086 F 5085 S 5087 11 CHF

**U.62 (03/93)** General requirements to be met in interfacing the international telex network with the fully automated maritime VHF/UHF radio system

5pp E 4566 F 4565 S 4567 8 CHF

**U.63 (11/88)** General requirements to be met in interfacing the international telex network with the maritime "direct printing" system

*Individually through the Electronic Bookshop:* 20 CHF

### *Interworking between new information services and telex*

**U.70 (11/88)** Telex service signals for telex to teletex interworking

*Individually through the Electronic Bookshop:* 20 CHF

**U.74 (11/88)** Extraction of telex selection information from a calling telex answerback

*Individually through the Electronic Bookshop:* 20 CHF

**U.75 (03/93)** Automatic called telex answerback check

3pp E 5119 F 5118 S 5120 8 CHF

### *Telex store and forward*

**U.80 (03/93)** International telex store and forward access from a telex subscriber

15pp E 5147 F 5214 S 5250 15 CHF

**U.81 (10/96)** International telex store-and-forward –  
Delivery to a telex subscriber  
12pp E 11018 F 11019 S 11020 12 CHF

### Intex service

**U.101 (03/93)** Signalling systems for the Intex  
service (types E and F signalling)  
27pp E 4982 F 4981 S 4983 15 CHF

**U.102 (07/96)** Intex and similar services – Network  
requirements to effect interworking between  
terminals operating at different speeds  
8pp E 7465 F 7466 S 7467 9 CHF

### Definitions

**U.140 (11/88)** Definitions of essential technical terms  
relating to telegraph switching and signalling  
*Individually through the Electronic Bookshop:* 20 CHF

### The international telex service

**U.200 (03/93)** The international telex service –  
General technical requirements for interworking  
17pp E 4901 F 4900 S 4902 15 CHF

**U.201 (03/93)** Interworking between the teletex  
service and the international telex service  
17pp E 5148 F 5215 S 5251 15 CHF

**U.202 (03/93)** Technical requirements to be met in  
providing the international telex service within an  
integrated services digital network  
*This Recommendation is also included but not published in  
I series under alias number I.560*  
17pp E 5150 F 5216 S 5251 15 CHF

**U.203 (03/93)** Technical requirements to be met  
when providing real-time bothway communications  
between terminals of the international telex service  
and data terminal equipments on a PSPDN or via the  
PSTN  
24pp E 5056 F 5055 S 5057 15 CHF

**U.204 (03/93)** Interworking between the international  
telex service and the public interpersonal messaging  
service  
23pp E 5366 F 5365 S 5367 15 CHF

**U.205 (03/93)** Store-and-retrieve facility for the  
delivery of messages from a terminal of the  
international telex service to a data terminal  
equipment which connects to a packet-switched  
public data network over the public switched  
telephone network  
2pp E 4269 F 4268 S 4270 8 CHF

**U.206 (03/93)** Technical requirements for  
interworking between the international telex service  
and the videotex service  
7pp E 4883 F 4882 S 4884 11 CHF

**U.207 (03/93)** Technical requirements to be met for  
the transfer of messages between terminals of the  
international telex service and group 3 facsimile  
terminals connected to the PSTN  
9pp E 4823 F 4822 S 4824 11 CHF

**U.208 (10/96)** The international telex service –  
Interworking with the INMARSAT C system using  
one-stage selection  
12pp E 11021 F 11022 S 11023 12 CHF

**U.210 (03/93)** Intex service Network requirements to  
effect interworking with the international telex  
service  
4pp E 4320 F 4319 S 4322 8 CHF

**U.220 (03/93)** The international telex service –  
Technical requirements for a status enquiry function  
in an interworking scenario  
6pp E 4922 F 4921 S 4923 8 CHF

## SERIES V

### Data communication over the telephone network

### General

**V.1 (11/88)** Equivalence between binary notation  
symbols and the significant conditions of a  
two-condition code  
*Individually through the Electronic Bookshop:* 20 CHF

**V.2 (11/88)** Power levels for data transmission over  
telephone lines  
*Individually through the Electronic Bookshop:* 20 CHF

**V.4 (11/88)** General structure of signals of  
international alphabet No. 5 code for character  
oriented data transmission over public telephone  
networks  
*Individually through the Electronic Bookshop:* 20 CHF

**V.5 (11/88)    Withdrawn (03/93)**

Standardization of data signalling rates for synchronous data transmission in the general switched telephone network

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**V.6 (11/88)    Withdrawn (03/93)**

Standardization of data signalling rates for synchronous data transmission on leased telephone-type circuits

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**V.7 (11/88)    Definitions of terms concerning data communication over the telephone network**

*Individually through the Electronic Bookshop:*    20 CHF

**V.8 bis (11/00)    Procedures for the identification and selection of common modes of operation between data circuit-terminating equipments (DCEs) and between data terminal equipments (DTEs) over the public switched telephone network and on leased point-to-point telephone-type circuits**

56pp            E 20404    F 20405    S 20406            29 CHF

**V.8 (11/00)    Procedures for starting sessions of data transmission over the public switched telephone network**

20pp            E 19921    F 19922    S 19923            17 CHF

**Interfaces and voiceband modems****V.10 (03/93)    Electrical characteristics for unbalanced double-current interchange circuits operating at data signalling rates nominally up to 100 kbit/s**

*This Recommendation is also included but not published in X series under alias number X.26.*

18pp            E 4252    F 4251    S 4253            15 CHF

**V.11 (10/96)    Electrical characteristics for balanced double-current interchange circuits operating at data signalling rates up to 10 Mbit/s**

*This Recommendation is also included but not published in X series under alias number X.27*

16pp            E 10048    F 10049    S 10050            12 CHF

**V.12 (08/95)    Electrical characteristics for balanced double-current interchange circuits for interfaces with data signalling rates up to 52 Mbit/s**

12pp            E 6329    F 6330    S 6331            11 CHF

**V.13 (03/93)    Simulated carrier control**

2pp            E 3720    F 3719    S 3721            8 CHF

**V.14 (03/93)    Transmission of start-stop characters over synchronous bearer channels**

4pp            E 3971    F 3970    S 3972            8 CHF

**V.14 (1993) Corrigendum 1 (09/98)****V.15 (11/88)    Use of acoustic coupling for data transmission**

*Individually through the Electronic Bookshop:*    20 CHF

**V.16 (11/88)    Medical analogue data transmission modems**

*Individually through the Electronic Bookshop:*    20 CHF

**V.17 (02/91)    A 2-wire modem for facsimile applications with rates up to 14 400 bit/s**

11pp            E 1960    F 1959    S 1961            10 CHF

**V.17 (1991) Corrigendum 1 (09/98)****V.18 (11/00)    Operational and interworking requirements for DCEs operating in the text telephone mode**

74pp            E 20233    F 20234    S 20235            34 CHF

**V.18 (2000) Amendment 1 (11/02)**

8pp            E 23076    F 23077    S 23078            9 CHF

**V.19 (11/88)    Modems for parallel data transmission using telephone signalling frequencies**

*Individually through the Electronic Bookshop:*    20 CHF

**V.20 (11/88)    Withdrawn (03/93)**

Parallel data transmission modems standardized for universal use in the general switched telephone network

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**V.21 (11/88)    300 bits per second duplex modem standardized for use in the general switched telephone network**

*Individually through the Electronic Bookshop:*    20 CHF

**V.22 bis (11/88)    2400 bits per second duplex modem using the frequency division technique standardized for use on the general switched telephone network and on point-to-point 2-wire leased telephone-type circuits**

*Individually through the Electronic Bookshop:*    20 CHF

**V.22 (11/88)    1200 bits per second duplex modem standardized for use in the general switched telephone network and on point-to-point 2-wire leased telephone-type circuits**

*Individually through the Electronic Bookshop:*    20 CHF

**V.23 (11/88)** 600/1200-baud modem standardized for use in the general switched telephone network

*Individually through the Electronic Bookshop:* 20 CHF

**V.24 (02/00)** List of definitions for interchange circuits between data terminal equipment (DTE) and data circuit-terminating equipment (DCE)

24pp E 18630 F 18631 S 18632 17 CHF

**V.25 (10/96)** Automatic answering equipment and general procedures for automatic calling equipment on the general switched telephone network including procedures for disabling of echo control devices for both manually and automatically established calls

12pp E 10112 F 10113 S 10114 12 CHF

**V.25 bis (10/96)** Synchronous and asynchronous automatic dialling procedures on switched networks

28pp E 10124 F 10125 S 10226 17 CHF

#### **V.25 (1996) Corrigendum 1 (07/01)**

**V.26 (11/88)** 2400 bits per second modem standardized for use on 4-wire leased telephone-type circuits

*Individually through the Electronic Bookshop:* 20 CHF

**V.26 bis (11/88)** 2400/1200 bits per second modem standardized for use in the general switched telephone network

*Individually through the Electronic Bookshop:* 20 CHF

**V.26 ter (11/88)** 2400 bits per second duplex modem using the echo cancellation technique standardized for use on the general switched telephone network and on point-to-point 2-wire leased telephone-type circuits

*Individually through the Electronic Bookshop:* 20 CHF

**V.27 (11/88)** 4800 bits per second modem with manual equalizer standardized for use on leased telephone-type circuits

*Individually through the Electronic Bookshop:* 20 CHF

**V.27 bis (11/88)** 4800/2400 bits per second modem with automatic equalizer standardized for use on leased telephone-type circuits

*Individually through the Electronic Bookshop:* 20 CHF

**V.27 ter (11/88)** 4800/2400 bits per second modem standardized for use in the general switched telephone network

*Individually through the Electronic Bookshop:* 20 CHF

**V.28 (03/93)** Electrical characteristics for unbalanced double-current interchange circuits

6pp E 3974 F 3973 S 3975 8 CHF

**V.29 (11/88)** 9600 bits per second modem standardized for use on point-to-point 4-wire leased telephone-type circuits

*Individually through the Electronic Bookshop:* 20 CHF

**V.31 bis (11/88)** Electrical characteristics for single-current interchange circuits using optocouplers

*Individually through the Electronic Bookshop:* 20 CHF

**V.31 (11/88)** Electrical characteristics for single-current interchange circuits controlled by contact closure

*Individually through the Electronic Bookshop:* 20 CHF

**V.32 bis (02/91)** A duplex modem operating at data signalling rates of up to 14 400 bit/s for use on the general switched telephone network and on leased point-to-point 2-wire telephone-type circuits

22pp E 1981 F 1980 S 1982 13 CHF

**V.32 (03/93)** A family of 2-wire, duplex modems operating at data signalling rates of up to 9600 bit/s for use on the general switched telephone network and on leased telephone-type circuits

23pp E 4050 F 4049 S 4051 15 CHF

**V.33 (11/88)** 14 400 bits per second modem standardized for use on point-to-point 4-wire leased telephone-type circuits

*Individually through the Electronic Bookshop:* 20 CHF

**V.34 (02/98)** A modem operating at data signalling rates of up to 33 600 bit/s for use on the general switched telephone network and on leased point-to-point 2-wire telephone-type circuits

76pp E 13500 F 13501 S 13502 34 CHF

#### *Wideband modems*

#### **V.35 (10/84) Withdrawn (03/93)**

Data transmission at 48 kbit/s using 60-108 kHz group band circuits

*Deleted because the information contained in V.35 was out of date. Alternative techniques are described in ITU-T V.36 and V.37*

*Individually through the Electronic Bookshop:* 20 CHF

**V.36 (11/88)** Modems for synchronous data transmission using 60-108 kHz group band circuits

*Individually through the Electronic Bookshop:* 20 CHF



**V.37 (11/88)** Synchronous data transmission at a data signalling rate higher than 72 kbit/s using 60-108 kHz group band circuits

*Individually through the Electronic Bookshop:* 20 CHF

**V.38 (10/96)** A 48/56/64 kbit/s data circuit-terminating equipment standardized for use on digital point-to-point leased circuits

20pp E 10127 F 10128 S 10129 17 CHF

### Error control

**V.40 (11/88) Withdrawn (03/93)**

Error indication with electromechanical equipment

*Deleted after its content became technically out of date*

*Individually through the Electronic Bookshop:*

**V.41 (11/88)** Code-independent error-control system

*Individually through the Electronic Bookshop:* 20 CHF

**V.42 bis (01/90)** Data compression procedures for data circuit-terminating equipment (DCE) using error correction procedures

27pp E 1757 F 1758 S 1759 10 CHF

**V.42 (03/02)** Error-correcting procedures for DCEs using asynchronous-to-synchronous conversion

70pp E 22467 F 22468 S 22469 34 CHF

**V.42 (2002) Corrigendum 1 (07/03)**

**V.43 (02/98)** Data flow control

12pp E 13318 F 13319 S 13320 12 CHF

**V.44 (11/00)** Data compression procedures

64pp E 20450 F 20451 S 20452 29 CHF

**V.44 (2000) Corrigendum 1 (03/02)**

**V.44 (2000) Corr.1/Erratum (05/02)** Erratum to Recommendation ITU-T V.44 (2000) / Cor.1 (03/2002)

### Transmission quality and maintenance

**V.50 (11/88)** Standard limits for transmission quality of data transmission

*Individually through the Electronic Bookshop:* 20 CHF

**V.51 (11/88)** Organization of the maintenance of international telephone-type circuits used for data transmission

*This Recommendation is published under alias number M.729.*

*Individually through the Electronic Bookshop:*

**V.52 (12/72) Withdrawn (11/88)**

Characteristics of distortion and error-rate measuring apparatus for data transmission

*Replaced by ITU-T O.153*

*Individually through the Electronic Bookshop:*

**V.53 (11/88)** Limits for the maintenance of telephone-type circuits used for data transmission

*Individually through the Electronic Bookshop:* 20 CHF

**V.54 (11/88) Withdrawn (11/88)**

Loop test devices for modems

*Individually through the Electronic Bookshop:* 20 CHF

**V.55 (11/88)** Specification for an impulsive noise measuring instrument for telephone-type circuits

*This Recommendation is published under alias number O.71.*

*Individually through the Electronic Bookshop:*

**V.56 bis (08/95)** Network transmission model for evaluating modem performance over 2-wire voice grade connections

64pp E 6411 F 6412 S 6413 25 CHF

**V.56 (11/88)** Comparative tests of modems for use over telephone-type circuits

*Individually through the Electronic Bookshop:* 20 CHF

**V.56 ter (08/96)** Test procedure for evaluation of 2-wire 4 kHz voiceband duplex modems

*This Recommendation includes 2 diskettes containing the data files used for the voiceband duplex modems throughput tests.*

76pp E 10818 F 10819 S 10820 89 CHF

**V.57 (10/84) Withdrawn (11/88)**

Comprehensive data test set for high data signalling rates

*Replaced by ITU-T O.153*

*Individually through the Electronic Bookshop:*

**V.58 (09/94)** Management information model for V-Series DCEs

58pp E 5495 F 5453 S 5454 24 CHF

**V.59 (11/00)** Managed objects for diagnostic information of public switched telephone network connected V-series modem DCE's

78pp E 20410 F 20411 S 20412 34 CHF

**V.59 (2000) Corrigendum 1 (07/01)**

**V.59 (2000) Corrigendum 2 (03/02)**

## Simultaneous transmission of data and other signals

**V.61 (08/96)** A simultaneous voice plus data modem, operating at a voice plus data signalling rate of 4800 bit/s, with optional automatic switching to data-only signalling rates of up to 14 400 bit/s, for use on the general switched telephone network and on leased point-to-point 2-wire telephone type circuits

36pp E 9950 F 9951 S 9952 22 CHF

**V.70 (08/96)** Procedures for the simultaneous transmission of data and digitally encoded voice signals over the GSTN, or over 2-wire leased point-to-point telephone type circuits

20pp E 9833 F 9834 S 9835 17 CHF

**V.75 (08/96)** DSVD terminal control procedures

24pp E 9836 F 9837 S 9838 17 CHF

**V.75 Appendix II (02/98)** Session establishment using V.75/H.245 procedures

12pp E 13403 F 13404 S 13405 12 CHF

**V.76 (08/96)** Generic multiplexer using V.42 LAPM-based procedures

56pp E 9839 F 9840 S 9841 29 CHF

**V.80 (08/96)** In-band DCE control and synchronous data modes for asynchronous DTE

36pp E 9953 F 9954 S 9955 22 CHF

**V.80 (1996) Amendment 1 (07/01)** ITU-T Amendment 1 (07/01) to Recommendation V.80 – In-Band DCE Control and Synchronous Data Modes for Asynchronous DTE

8pp E 20984 F 20985 S 20986 9 CHF

**V.90 (09/98)** A digital modem and analogue modem pair for use on the Public Switched Telephone Network (PSTN) at data signalling rates of up to 56 000 bit/s downstream and up to 33 600 bit/s upstream

52pp E 14610 F 14611 S 14612 22 CHF

**V.91 (05/99)** A digital modem operating at data signalling rates of up to 64 000 bit/s for use on a 4-wire circuit switched connection and on leased point-to-point 4-wire digital circuits

20pp E 16754 F 16755 S 16756 17 CHF

**V.91 (1999) Corrigendum 1 (07/01)**

**V.92 (11/00)** Enhancements to Recommendation V.90

76pp E 20395 F 20396 S 20397 34 CHF

**V.92 (2000) Amendment 1 (07/01)** ITU-T Amendment 1 (07/01) to Recommendation V.92 – Enhancements to Recommendation V.90

12pp E 20992 F 20993 S 20994 9 CHF

**V.92 (2000) Amendment 2 (03/02)** Enhancements to Recommendation V.90

8pp E 22218 F 22219 S 22220 9 CHF

## Error control

**V.92 (2000) Corrigendum 1 (07/03)**

## Interworking with other networks

**V.100 (11/88)** Interconnection between public data networks (PDNs) and the public switched telephone networks (PSTN)

*Individually through the Electronic Bookshop:* 20 CHF

**V.110 (02/00)** Support by an ISDN of data terminal equipments with V-Series type interfaces

*This Recommendation is also included but not published in I Series under alias number I.463.*

68pp E 18325 F 18326 S 18327 29 CHF

**V.120 (10/96)** Support by an ISDN of data terminal equipment with V-Series type interfaces with provision for statistical multiplexing

*This Recommendation is also included but not published in I series under alias number I.465*

44pp E 10118 F 10119 S 10120 22 CHF

**V.120 (1996) Corrigendum 1 (05/99)**

**V.130 (08/95)** ISDN terminal adaptor framework

20pp E 6405 F 6406 S 6407 15 CHF

**V.140 (02/98)** Procedures for establishing communication between two multiprotocol audiovisual terminals using digital channels at a multiple of 64 or 56 kbit/s

40pp E 13406 F 13407 S 13408 22 CHF

**V.150.0 (01/03)** Modem-over-IP networks:  
Foundation  
12pp E 23282 F 23283 S 23284 9 CHF

**V.150.1 (01/03)** Modem-over-IP networks:  
Procedures for the end-to-end connection of  
V-series DCEs  
136pp E 25303 55 CHF

### **V.150.1 (2003) Corrigendum 1 (07/03)**

*To be published*

To be published...

### *Interface layer specifications for data communication*

**V.230 (11/88)** General data communications  
interface layer 1 specification  
*Individually through the Electronic Bookshop:* 22 CHF

**V.250 (07/03)** Serial asynchronous automatic dialling  
and control  
104pp E 25088 F 25089 S 25090 44 CHF

### *Control procedures*

**V.250 Supplement 1 (06/01)** Various extensions to  
V.250 basic command set  
24pp E 21573 F 21574 S 21575 17 CHF

**V.251 (08/96)** Procedure for DTE-controlled call  
negotiation  
*Approved and published as ITU-T V.25 ter/Annex A (08/96), included without further modification in V.25 ter (07/97), renumbered V.251 on 6 February 1998 and republished without further modifications*  
1pp E 16917 F 16918 S 16919 17 CHF

### **V.251 (1996) Erratum 1 (10/03)**

**V.252 (02/98)** Procedure for control of V.70 and  
H.324 terminals by a DTE  
32pp E 13082 F 13083 S 13084 17 CHF

**V.253 (02/98)** Control of voice-related functions in a  
DCE by an asynchronous DTE  
100pp E 13503 F 13504 S 13505 44 CHF

### *Modems on digital circuits*

**V.300 (07/99)** A 128 (144) kbit/s data circuit-  
terminating equipment standardized for use on  
digital point-to-point leased circuits  
24pp E 16473 F 16474 S 16475 17 CHF

## **SERIES X**

## **Data networks and open system communications**

### **Public data networks**

#### *Services and facilities*

**X.1 (03/00)** International user classes of service in,  
and categories of access to, public data networks and  
Integrated Services Digital Networks (ISDNs)

16pp E 17966 F 17967 S 17968 12 CHF

**X.2 (03/00)** International data transmission services  
and optional user facilities in public data networks  
and ISDNs

28pp E 18144 F 18145 S 18146 17 CHF

**X.3 (03/00)** Packet assembly/disassembly facility  
(PAD) in a public data network

28pp E 17969 F 17970 S 17971 9 CHF

**X.4 (11/88)** General structure of signals of  
International Alphabet No. 5 code for character  
oriented data transmission over public data networks

*Individually through the Electronic Bookshop:* 20 CHF

**X.5 (10/96)** Facsimile Packet Assembly/Disassembly  
facility (FPAD) in a public data network

20pp E 9554 F 9555 S 9556 17 CHF

**X.6 (08/97)** Multicast service definition

40pp E 12426 F 12427 S 12428 22 CHF

**X.6 (1997) Amendment 1 (03/00)** Frame relay PVC  
multicast service definition

8pp E 19710 F 19711 S 19712 9 CHF

**X.7 (03/00)** Technical characteristics of data  
transmission services

48pp E 18013 F 18014 S 18015 22 CHF

**X.8 (07/94)** Multi-aspect PAD (MAP) framework  
and service definition

9pp E 5544 F 5543 S 5545 11 CHF

**X.10 (03/93)    Withdrawn (10/96)**

Categories of access for Data Terminal Equipment (DTE) to public data transmission services

*Deleted as its content is fully covered by ITU-T X.1*

**X.15 (10/84)    Withdrawn (11/88)**

Definitions of terms concerning public data networks

*Withdrawn on 25.11.1988*

**Interfaces**

**X.20 (11/88)** Interface between Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) for start-stop transmission services on public data networks

*Individually through the Electronic Bookshop:*    20 CHF

**X.20 bis (11/88)** Use on public data networks of Data Terminal Equipment (DTE) which is designed for interfacing to asynchronous duplex V-Series modems

*Individually through the Electronic Bookshop:*    20 CHF

**X.21 (09/92)** Interface between Data Terminal Equipment and Data Circuit-terminating Equipment for synchronous operation on public data networks

56pp            E 3105        F 3104        S 3106            24 CHF

**X.21 bis (11/88)** Use on public data networks of Data Terminal Equipment (DTE) which is designed for interfacing to synchronous V-Series modems

*Individually through the Electronic Bookshop:*    29 CHF

**X.22 (11/88)** Multiplex DTE/DCE interface for user classes 3-6

*Individually through the Electronic Bookshop:*    20 CHF

**X.24 (11/88)** List of definitions for interchange circuits between Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) on public data networks

*Individually through the Electronic Bookshop:*    20 CHF

**X.25 (10/96)** Interface between Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) for terminals operating in the packet mode and connected to public data networks by dedicated circuit

168pp            E 9971        F 9972        S 9973            73 CHF

**X.25 (1996) Corrigendum 1 (09/98)**

**X.26 (03/93)** Electrical characteristics for unbalanced double-current interchange circuits operating at data signalling rates nominally up to 100 kbit/s

*This Recommendation is published under alias number V.10*

**X.27 (10/96)** Electrical characteristics for balanced double-current interchange circuits operating at data signalling rates up to 10 Mbit/s

*This Recommendation is published under alias number V.11*

**X.28 (12/97)** DTE/DCE interface for a start-stop mode Data Terminal Equipment accessing the Packet Assembly/Disassembly facility (PAD) in a public data network situated in the same country

60pp            E 12820        F 12821        S 12822            29 CHF

**X.28 (1997) Amendment 1 (03/00)** Extensions of PAD parameter settings and PAD service signals

8pp            E 19767        F 19768        S 19769            9 CHF

**X.29 (12/97)** Procedures for the exchange of control information and user data between a Packet Assembly/Disassembly (PAD) facility and a packet mode DTE or another PAD

20pp            E 12683        F 12684        S 12685            17 CHF

**X.30 (03/93)** Support of X.21, X.21 bis and X.20 bis based Data Terminal Equipments (DTEs) by an Integrated Services Digital Network (ISDN)

*This Recommendation is also included but not published in I series under alias number I.461*

43pp            E 3811        F 3810        S 3812            20 CHF

**X.31 (11/95)** Support of packet mode terminal equipment by an ISDN

*This Recommendation is also included but not published in I series under alias number I.462*

68pp            E 6509        F 6510        S 6511            30 CHF

**X.32 (10/96)** Interface between Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) for terminals operating in the packet mode and accessing a packet-switched public data network through a public switched telephone network or an integrated services digital network or a circuit-switched public data network

60pp            E 9666        F 9667        S 9668            29 CHF

**X.33 (10/96)** Access to packet-switched data transmission services via frame relaying data transmission services

40pp            E 9739        F 9740        S 9741            22 CHF

**X.34 (10/96)** Access to packet-switched data transmission services via B-ISDN

60pp E 9669 F 9670 S 9671 17 CHF

**X.34 (1996) Corrigendum 1 (03/00)**

**X.35 (11/93)** Interface between a PSPDN and a private PSDN which is based on X.25 procedures and enhancements to define a gateway function that is provided in the PSPDN

40pp E 5307 F 5294 S 5317 20 CHF

**X.36 (02/03)** Interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) for public data networks providing frame relay data transmission service by dedicated circuit

157pp E 24075 F 24076 S 24077 61 CHF

**X.37 (04/95)** Encapsulation in X.25 packets of various protocols including frame relay

48pp E 6332 F 6333 S 6334 25 CHF

**X.38 (10/96)** G3 facsimile equipment/DCE interface for G3 facsimile equipment accessing the Facsimile Packet Assembly/Disassembly facility (FPAD) in a public data network situated in the same country

60pp E 9785 F 9786 S 9787 29 CHF

**X.39 (10/96)** Procedures for the exchange of control information and user data between a Facsimile Packet Assembly/Disassembly (FPAD) facility and a packet mode Data Terminal Equipment (DTE) or another FPAD

36pp E 9791 F 9792 S 9793 22 CHF

**X.40 (11/88) Withdrawn (03/93)**

Standardization of frequency-shift modulated transmission systems for the provision of telegraph and data channels by frequency division of a group

*Withdrawn on 12.03.1993*

**X.42 (10/03)** Procedures and methods for accessing a public data network from a DTE operating under control of a generalized polling protocol

34pp E 24960 F 24961 S 24962 17 CHF

**X.45 (10/96)** Interface between Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) for terminals operating in the packet mode and connected to public data networks, designed for efficiency at higher speeds

100pp E 10349 F 10350 S 10351 44 CHF

**X.46 (09/98)** Access to FRDTS via B-ISDN

28pp E 15592 F 15593 S 15594 17 CHF

**X.48 (10/96)** Procedures for the provision of a basic multicast service for Data Terminal Equipments (DTEs) using Recommendation X.25

32pp E 9755 F 9756 S 9757 22 CHF

**X.49 (10/96)** Procedures for the provision of an extended multicast service for Data Terminal Equipments (DTEs) using Recommendation X.25

68pp E 10141 F 10142 S 10143 34 CHF

*Transmission, signalling and switching*

**X.50 bis (11/88)** Fundamental parameters of a 48-kbit/s user data signalling rate transmission scheme for the international interface between synchronous data networks

*Individually through the Electronic Bookshop: 20 CHF*

**X.50 (11/88)** Fundamental parameters of a multiplexing scheme for the international interface between synchronous data networks

*Individually through the Electronic Bookshop: 20 CHF*

**X.51 (11/88)** Fundamental parameters of a multiplexing scheme for the international interface between synchronous data networks using 10-bit envelope structure

*Individually through the Electronic Bookshop: 20 CHF*

**X.51 bis (11/88)** Fundamental parameters of a 48-kbit/s user data signalling rate transmission scheme for the international interface between synchronous data networks using 10-bit envelope structure

*Individually through the Electronic Bookshop: 20 CHF*

**X.52 (11/88)** Method of encoding anisochronous signals into a synchronous user bearer

*Individually through the Electronic Bookshop: 20 CHF*

**X.53 (03/93)** Numbering of channels on international multiplex links at 64 kbit/s

1pp E 4575 F 4574 S 4576 8 CHF



**X.54 (11/88)** Allocation of channels on international multiplex links at 64 kbit/s

*Individually through the Electronic Bookshop:* 20 CHF

**X.55 (11/88)** Interface between synchronous data networks using a 6 + 2 envelope structure and single channel per carrier (SCPC) satellite channels

*Individually through the Electronic Bookshop:* 20 CHF

**X.56 (11/88)** Interface between synchronous data networks using an 8 + 2 envelope structure and single channel per carrier (SCPC) satellite channels

*Individually through the Electronic Bookshop:* 20 CHF

**X.57 (11/88)** Method of transmitting a single lower speed data channel on a 64 kbit/s data stream

*Individually through the Electronic Bookshop:* 20 CHF

**X.58 (11/88)** Fundamental parameters of a multiplexing scheme for the international interface between synchronous non-switched data networks using no envelope structure

*Individually through the Electronic Bookshop:* 20 CHF

**X.60 (11/88)** Common channel signalling for circuit-switched data applications

*Individually through the Electronic Bookshop:* 20 CHF

**X.61 (11/88) Withdrawn (11/88)**  
Signalling System No. 7 – Data user part

*This Recommendation was also included but not published in Q series under alias number Q.741. It was discontinued because it was no longer used*

*Individually through the Electronic Bookshop:* 29 CHF

**X.70 (11/88)** Terminal and transit control signalling system for start-stop services on international circuits between anisochronous data networks

*Individually through the Electronic Bookshop:* 22 CHF

**X.71 (11/88)** Decentralized terminal and transit control signalling system on international circuits between synchronous data networks

*Individually through the Electronic Bookshop:* 22 CHF

**X.75 (10/96)** Packet-switched signalling system between public networks providing data transmission services

128pp E 10130 F 10131 S 10132 49 CHF

**X.75 (1996) Corrigendum 1 (09/98)**

**X.76 (02/03)** Network-to-network interface between public networks providing PVC and/or SVC frame relay data transmission service

108pp E 24192 F 24193 S 24194 44 CHF

**X.77 (08/97)** Interworking between PSPDNs via B-ISDN

28pp E 12432 F 12433 S 12434 17 CHF

**X.77 (1997) Corrigendum 1 (03/00)**

**X.78 (06/99)** Interworking procedures between networks providing frame relay data transmission services via B-ISDN

24pp E 16424 F 16425 S 16426 17 CHF

**X.78 (1999) Corrigendum 1 (03/00)**

**X.80 (11/88)** Interworking of interexchange signalling systems for circuit-switched data services

*Individually through the Electronic Bookshop:* 20 CHF

**X.81 (11/88)** Interworking between an ISDN circuit-switched and a circuit-switched public data network (CSPDN)

*Individually through the Electronic Bookshop:* 20 CHF

**X.82 (11/88)** Detailed arrangements for interworking between CSPDNs and PSPDNs based on Recommendation T.70

*Individually through the Electronic Bookshop:* 20 CHF

**X.85/Y.1321 (03/01)** IP over SDH using LAPS

28pp E 20810 F 20811 S 20812 17 CHF

**X.85/Y.1321 (03/00) Withdrawn (03/00)**  
IP over SDH using LAPS

28pp E 20810 F 20811 S 20812 17 CHF

*Transmission, signalling and switching*

**X.85/Y.1321 (03/00) Withdrawn (03/00)**  
IP over SDH using LAPS

28pp E 19227 F 20811 S 20812 17 CHF

**X.86/Y.1323 (2001) Amendment 1 (04/02)** Using Ethernet flow control as rate limiting

12pp E 22440 F 22441 S 22442 9 CHF

**X.86/Y.1323 (02/01)** Ethernet over LAPS

20pp E 21904 F 21905 S 21906 12 CHF



**X.87/Y.1324 (10/03)** Multiple services ring based on RPR

To be published...

### Network aspects

**X.92 (11/88)** Hypothetical reference connections for public synchronous data networks

*Individually through the Electronic Bookshop:* 20 CHF

**X.96 (03/00)** Call progress signals in public data networks

16pp E 18045 F 18046 S 18047 12 CHF

### Network aspects

**X.110 (04/02)** International routing principles and routing plan for Public Data Networks

20pp E 22445 F 22446 S 22447 17 CHF

### Network aspects

**X.111 (02/03)** Principles for the routing of international frame relay traffic

26pp E 23773 F 23774 S 23775 17 CHF

### Network aspects

**X.115 (04/95)** Definition of address translation capability in public data networks

16pp E 6272 F 6273 S 6274 15 CHF

**X.115 (1995) Amendment 1 (10/96)** Refinements

8pp E 10525 F 10526 S 10527 9 CHF

**X.116 (10/96)** Address translation registration and resolution protocol

28pp E 10535 F 10536 S 10537 17 CHF

**X.121 (10/00)** International numbering plan for public data networks

35pp E 19931 F 19932 S 19933 22 CHF

## International operation

### Numbering plan of the international telephone service

**X.122/E.166 (03/98)** Numbering plan interworking for the E.164 and X.121 numbering plans

*This Recommendation is published with the double number E.166 and X.122*

44pp E 13314 F 10010 S 10011 22 CHF

## Public data networks

### Network aspects

**X.123 (10/96)** Mapping between escape codes and TOA/NPI for E.164/X.121 numbering plan interworking during the transition period

8pp E 9722 F 9723 S 9724 9 CHF

**X.124 (06/99)** Arrangements for the interworking of the E.164 and X.121 numbering plans for frame relay and ATM networks

28pp E 16390 F 16391 S 16392 17 CHF

**X.125 (09/98)** Procedure for the notification of the assignment of international network identification codes for public frame relay data networks and ATM networks numbered under the E.164 numbering plan

12pp E 15443 F 15444 S 15445 12 CHF

**X.130 (11/88)** Call processing delays in public data networks when providing international synchronous circuit-switched data services

*Individually through the Electronic Bookshop:* 20 CHF

**X.131 (11/88)** Call blocking in public data networks when providing international synchronous circuit-switched data services

*Individually through the Electronic Bookshop:* 20 CHF

**X.134 (08/97)** Portion boundaries and packet-layer reference events: Basis for defining packet-switched performance parameters

16pp E 11922 F 11923 S 11924 12 CHF

**X.135 (08/97)** Speed of service (delay and throughput) performance values for public data networks when providing international packet-switched services

36pp E 12505 F 12506 S 12507 22 CHF

### Network aspects

**X.135 Supplement 1 (08/97)** Some test results from specific national and international portions

*Published with ITU-T X.135 (1997)*

To be published...

## Network aspects

**X.136 (08/97)** Accuracy and dependability performance values for public data networks when providing international packet-switched services

20pp E 12009 F 12010 S 12011 17 CHF

**X.137 (08/97)** Availability performance values for public data networks when providing international packet-switched services

20pp E 12000 F 12001 S 12002 17 CHF

**X.138 (08/97)** Measurement of performance values for public data networks when providing international packet-switched services

44pp E 12043 F 12044 S 12045 22 CHF

**X.139 (08/97)** Echo, drop, generator and test DTEs for measurement of performance values in public data networks when providing international packet-switched services

20pp E 12046 F 12047 S 12048 17 CHF

**X.140 (09/92)** General quality of service parameters for communication via public data networks

25pp E 3236 F 3235 S 3237 15 CHF

**X.141 (11/88)** General principles for the detection and correction of errors in public data networks

*A Corrigendum was indicated in 06/1990 for the English version.*

*Individually through the Electronic Bookshop:* 20 CHF

**X.142 (10/03)** Quality of service metrics for characterizing Frame Relay /ATM service interworking performance

14pp E 24913 F 24914 S 24915 12 CHF

**X.144 (10/03)** User information transfer performance parameters for public frame relay data networks

36pp E 24867 F 24868 S 24869 17 CHF

**X.145 (10/03)** Connection establishment and disengagement performance parameters for public frame relay data networks providing SVC services

24pp E 25069 F 25070 S 25071 17 CHF

**X.146 (10/00)** Performance objectives and quality of service classes applicable to frame relay

24pp E 19937 F 19938 S 19939 17 CHF

**X.147 (10/03)** Frame Relay network availability

28pp E 24801 F 24802 S 24803 17 CHF

## Network aspects

**X.148 (02/03)** Procedures for the measurement of the performance of public data networks providing the international frame relay service

34pp E 23860 F 23861 S 23862 17 CHF

## Network aspects

**X.149 (10/03)** Performance of IP networks when supported by public frame relay data networks

33pp E 24956 F 24957 S 24958 17 CHF

## Maintenance

**X.150 (11/88)** Principles of maintenance testing for public data networks using Data Terminal Equipment (DTE) and Data Circuit-terminating Equipment (DCE) test loops

*Individually through the Electronic Bookshop:* 20 CHF

## Network aspects

**X.151 (10/03)** Frame Relay operations and maintenance – Principles and functions

50pp E 25066 F 25067 S 25068 22 CHF

**X.151 (2003) Erratum 1 (03/04)**

*Applies to English version only*

## Maintenance

**X.160 (10/96)** Architecture for customer network management service for public data networks

20pp E 10480 F 10481 S 10482 17 CHF

**X.161 (08/97)** Definition of customer network management services for public data networks

28pp E 12610 F 12611 S 12612 17 CHF

**X.162 (03/00)** Definition of management information for customer network management service for public data networks to be used with the CNMc interface

232pp E 18727 F 18728 S 18729 96 CHF

**X.163 (04/95)** Definition of management information for customer network management service for public data networks to be used with the CNMe interface  
72pp E 6435 F 6436 S 6437 30 CHF

**X.170 (06/99)** Network-network management architecture for data networks  
20pp E 16456 F 16457 S 16458 17 CHF

**X.171 (03/00)** Network-network management services for data networks  
22pp E 19633 F 19634 S 19635 12 CHF

### Administrative arrangements

**X.180 (11/88)** Administrative arrangements for international closed user groups (CUGs)  
*Individually through the Electronic Bookshop:* 20 CHF

**X.181 (11/88)** Administrative arrangements for the provision of international permanent virtual circuits (PVCs)  
*Individually through the Electronic Bookshop:* 20 CHF

## Open Systems Interconnection

### Model and notation

**X.200 (07/94)** Information technology – Open Systems Interconnection – Basic Reference Model: The basic model  
Common text with ISO/IEC  
59pp E 5139 F 5640 S 5641 24 CHF

**X.207 (11/93)** Information technology – Open Systems Interconnection – Application layer structure  
Common text with ISO/IEC  
20pp E 4517 F 5247 S 5283 15 CHF

**X.208 (11/88) Withdrawn (10/02)**  
Specification of Abstract Syntax Notation One (ASN.1)  
*CCITT Recommendation X.208 has been withdrawn on 30 October 2002 as it has been superseded by ITU-T Recommendations X.680-683. All known defects in X.208 have been corrected in ITU-T Recommendations X.680-683 (1993) further revised in 1997 and 2002. If you are a protocol designer creating new ASN.1 notation, you should use the 2002 version of ASN.1 as defined in ITU-T Recommendations X.680-X.683 (2002) instead of using CCITT Recommendation X.208. For further information, please see 'Changing from ASN.1:1988 to ASN.1:2002' on the ITU-T Study Group 17 web page.*  
*Individually through the Electronic Bookshop:* 34 CHF

**X.209 (11/88) Withdrawn (10/02)**  
Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1)

*CCITT Recommendation X.209 has been withdrawn on 30 October 2002 as it has been superseded by ITU-T Recommendation X.690. All known defects in X.209 have been corrected in ITU-T Recommendation X.690 (1993) further revised in 1997 and 2002. If you are a protocol designer creating new ASN.1 notation, you should use the 2002 version of ASN.1 encoding rules as defined in ITU-T Recommendations X.690-X.693 (2002) instead of using CCITT Recommendation X.209. For further information, please see 'Changing from ASN.1:1988 to ASN.1:2002' on the ITU-T Study Group 17 web page.*

*Individually through the Electronic Bookshop:* 20 CHF

### Service definitions

**X.210 (11/93)** Information technology – Open systems interconnection – Basic Reference Model: Conventions for the definition of OSI services  
Common text with ISO/IEC  
25pp E 5412 F 5945 S 5709 15 CHF

**X.211 (11/95)** Information technology – Open systems interconnection – Physical service definition  
Common text with ISO/IEC  
32pp E 6757 F 7347 S 7348 17 CHF

**X.212 (11/95)** Information technology – Open systems interconnection – Data Link service definition  
Common text with ISO/IEC  
32pp E 6772 F 7442 S 7443 17 CHF

**X.213 (10/01)** Information technology – Open Systems Interconnection – Network service definition  
70pp E 21388 F 21389 S 21390 34 CHF

**X.214 (11/95)** Information technology – Open Systems Interconnection – Transport service definition  
Common text with ISO/IEC  
36pp E 6731 F 7048 S 7049 17 CHF

**X.215 (11/95)** Information technology – Open Systems Interconnection – Session service definition  
Common text with ISO/IEC  
100pp E 6733 F 6837 S 6838 39 CHF

**X.215 (1995) Amendment 1 (08/97)** Efficiency enhancements  
8pp E 12367 F 12368 S 12369 9 CHF

**X.215 (1995) Amendment 2 (12/97)** Nested connections functional unit  
8pp E 12836 F 12837 S 12838 9 CHF

**X.215 (1995) Technical Cor. 1 (03/00)**

**X.216 (07/94)** Information technology – Open Systems Interconnection – Presentation service definition  
Common text with ISO/IEC  
41pp E 5363 F 5948 S 5710 20 CHF

**X.216 (1994) Amendment 1 (08/97)** Efficiency enhancements  
8pp E 12370 F 12371 S 12372 9 CHF

**X.216 (1994) Amendment 2 (12/97)** Nested connections functional unit  
8pp E 12898 F 12899 S 12900 9 CHF

**X.217 (04/95)** Information technology – Open Systems Interconnection – Service definition for the Association Control Service Element  
Common text with ISO/IEC  
28pp E 6699 F 7142 S 7143 15 CHF

**X.217 bis (09/98)** Information technology – Open Systems Interconnection – Service definition for the Application Service Object Association Control Service Element  
Common text with ISO/IEC  
32pp E 14399 F 14400 S 14401 22 CHF

**X.217 (1995) Amendment 1 (10/96)** Support of authentication mechanisms for the connectionless mode  
8pp E 10866 F 10867 S 10868 9 CHF

**X.217 (1995) Amendment 2 (08/97)** Fast-associate mechanism  
8pp E 12352 F 12353 S 12354 9 CHF

**X.218 (03/93)** Reliable Transfer: Model and service definition  
17pp E 3625 F 3624 S 3626 15 CHF

**X.219 (11/88)** Remote Operations: Model, notation and service definition  
*Individually through the Electronic Bookshop:* 20 CHF

*Connection-mode protocol specifications*

**X.220 (03/93)** Use of X.200-Series protocols in CCITT applications  
4pp E 3631 F 3630 S 3632 8 CHF

**X.222 (04/95)** Use of X.25 LAPB-compatible Data Link procedures to provide the OSI connection-mode Data Link service

*This title results from the modification of ITU-T X.222 (04/95) former title by Amendment 1 (10/96).*

8pp E 6269 F 6270 S 6271 11 CHF

**X.222 (1995) Amendment 1 (10/96)** Frame relay mapping  
8pp E 10514 F 10515 S 10516 9 CHF

**X.223 (11/93)** Use of X.25 to provide the OSI connection-mode Network service for ITU-T applications  
35pp E 5619 F 5618 S 5620 20 CHF

**X.223 (1993) Amendment 1 (10/96)** Transit delay and other refinements  
8pp E 10538 F 10539 S 10540 9 CHF

**X.224 (11/95)** Information technology – Open Systems Interconnection – Protocol for providing the connection-mode transport service  
Common text with ISO/IEC  
156pp E 9681 F 9682 S 9683 61 CHF

**X.224 (1995) Amendment 1 (08/97)** Relaxation of class conformance requirements and expedited data service feature negotiation  
8pp E 12373 F 12374 S 12375 9 CHF

**X.225 (11/95)** Information technology – Open Systems Interconnection – Connection-oriented Session protocol: Protocol specification  
Common text with ISO/IEC  
180pp E 6734 F 9842 S 9843 73 CHF

**X.225 (1995) Amendment 1 (08/97)** Efficiency enhancements  
36pp E 12223 F 12224 S 12225 22 CHF

**X.225 (1995) Amendment 2 (12/97)** Nested connections functional unit  
16pp E 12901 F 12902 S 12903 12 CHF

**X.225 (1995) Technical Cor. 1 (03/00)**

**X.226 (07/94)** Information technology – Open Systems Interconnection – Connection-oriented Presentation protocol: Protocol specification  
Common text with ISO/IEC  
60pp E 5364 F 5949 S 5711 29 CHF

**X.226 (1994) Amendment 1 (08/97)** Nested connections functional unit  
24pp E 12226 F 12227 S 12228 17 CHF

**X.226 (1994) Amendment 2 (12/97)** Nested connections functional unit  
8pp E 12839 F 12840 S 12841 9 CHF

**X.227 (04/95)** Information technology – Open Systems Interconnection – Connection-oriented protocol for the Association Control Service Element: Protocol specification  
44pp E 6743 F 9956 S 9957 22 CHF

**X.227 bis (09/98)** Information technology – Open Systems Interconnection – Connection-mode protocol for the Application Service Object Association Control Service Element  
Common text with ISO/IEC  
82pp E 14499 F 14500 S 14501 34 CHF

**X.227 (1995) Amendment 1 (10/96)** Incorporation of extensibility markers  
12pp E 10869 F 10870 S 10871 12 CHF

**X.227 (1995) Amendment 2 (08/97)** Fast-associate mechanism  
8pp E 12376 F 12377 S 12378 9 CHF

**X.228 (1988) Corrigendum 1 (03/00)**

**X.228 (11/88)** Reliable Transfer: Protocol specification  
*Individually through the Electronic Bookshop:* 34 CHF

**X.229 (11/88)** Remote Operations: Protocol specification  
*Individually through the Electronic Bookshop:* 20 CHF

*Connectionless-mode protocol specifications*

**X.233 (08/97)** Information technology – Protocol for providing the connectionless-mode network service: Protocol specification  
Common text with ISO/IEC  
64pp E 12823 F 12824 S 12825 29 CHF

**X.234 (07/94)** Information technology – Protocol for providing the OSI connectionless-mode transport service  
Common text with ISO/IEC  
8pp E 5621 F 5981 S 5712 15 CHF

**X.234 (1994) Amendment 1 (11/95)** Addition of connectionless-mode multicast capability  
8pp E 7305 F 7306 S 7307 9 CHF

**X.235 (04/95)** Information technology – Open Systems Interconnection – Connectionless Session protocol: Protocol specification  
Common text with ISO/IEC  
16pp E 6424 F 6854 S 6855 11 CHF

**X.235 (1995) Amendment 1 (06/99)** Efficiency enhancements  
12pp E 16226 F 16227 S 16228 12 CHF

**X.236 (04/95)** Information technology – Open Systems Interconnection – Connectionless Presentation protocol: Protocol specification  
Common text with ISO/IEC  
16pp E 6284 F 6716 S 6487 15 CHF

**X.236 (1995) Amendment 1 (06/99)** Efficiency enhancements  
12pp E 16229 F 16230 S 16231 12 CHF

**X.237 (04/95)** Information technology – Open Systems Interconnection – Connectionless protocol for the Association Control Service Element: Protocol specification  
Common text with ISO/IEC  
20pp E 6285 F 6485 S 6628 15 CHF

**X.237 bis (09/98)** Information technology – Open Systems Interconnection – Connectionless protocol for the Application Service Object Association Control Service Element  
Common text with ISO/IEC  
24pp E 14402 F 14403 S 14404 17 CHF

**X.237 (1995) Amendment 1 (10/96)** Incorporation of extensibility markers and authentication parameters  
8pp E 10872 F 10873 S 10874 9 CHF

**X.237 Amd1 (10/96) Technical Cor.1 (06/99)**

*PICS proformas*

**X.244 (11/88) Withdrawn (10/96)**  
Procedure for the exchange of protocol identification during virtual call establishment on Packet Switched Public Data Networks  
Common text with ISO/IEC  
*Superseded by the more comprehensive description of protocol identifiers contained in X.263*  
*Individually through the Electronic Bookshop:*



**X.245 (04/95)** Information technology – Open Systems Interconnection – Connection-oriented Session protocol: Protocol Implementation Conformance Statement (PICS) proforma

Common text with ISO/IEC

44pp E 6741 F 9762 S 9765 22 CHF

**X.246 (10/96)** Information technology – Open Systems Interconnection – Connection-oriented presentation protocol: Protocol Implementation Conformance Statement (PICS) proforma

Common text with ISO/IEC

28pp E 9844 F 9845 S 9846 17 CHF

**X.247 (10/96)** Information technology – Open Systems Interconnection – Protocol specification for the association control service element: Protocol Implementation Conformance Statement (PICS) proforma

Common text with ISO/IEC

16pp E 9847 F 9848 S 9849 12 CHF

**X.248 (11/95)** Information technology – Open Systems Interconnection – Reliable Transfer: Protocol Implementation Conformance Statement (PICS) proforma

Common text with ISO/IEC

20pp E 6776 F 9557 S 9558 17 CHF

**X.249 (11/95)** Information technology – Open Systems Interconnection – Remote Operations: Protocol Implementation Conformance Statement (PICS) proforma

Common text with ISO/IEC

16pp E 6777 F 9559 S 9560 12 CHF

**X.255 (04/95)** Information technology – Open Systems Interconnection – Connectionless Session protocol: Protocol Implementation Conformance Statement (PICS) proforma

Common text with ISO/IEC

16pp E 6189 F 6680 S 6630 11 CHF

**X.256 (04/95)** Information technology – Open Systems Interconnection – Connectionless Presentation protocol: Protocol Implementation Conformance Statement (PICS) proforma

Common text with ISO/IEC

16pp E 6190 F 6679 S 6629 11 CHF

**X.257 (04/95)** Information technology – Open Systems Interconnection – Connectionless protocol for the Association Control Service Element: Protocol Implementation Conformance Statement (PICS) proforma

Common text with ISO/IEC

16pp E 6191 F 6459 S 6632 11 CHF

**X.257 (1995) Amendment 1 (10/96)** Support of authentication parameters

8pp E 10678 F 10679 S 10680 9 CHF

### *Protocol Identification*

**X.260 (10/96)** Information technology – Framework for protocol identification and encapsulation

Common text with ISO/IEC

24pp E 9938 F 9939 S 9940 17 CHF

**X.263 (09/98)** Information technology – Protocol identification in the Network Layer

Common text with ISO/IEC

24pp E 14471 F 14472 S 14473 17 CHF

**X.264 (11/93)** Transport protocol identification mechanism

6pp E 5110 F 5109 S 5111 8 CHF

### *Security Protocols*

**X.272 (03/00)** Data compression and privacy over frame relay networks

41pp E 19834 F 19835 S 19836 22 CHF

**X.273 (07/94)** Information technology – Open Systems Interconnection – Network layer security protocol

Common text with ISO/IEC

108pp E 5622 F 6255 S 6180 44 CHF

**X.274 (07/94)** Information technology – Telecommunication and information exchange between systems – Transport layer security protocol

Common text with ISO/IEC

50pp E 5553 F 6287 S 6288 24 CHF

### *Layer Managed Objects*

**X.281 (06/99)** Information technology – Elements of management information related to the OSI Physical Layer

24pp E 16132 F 16133 S 16134 17 CHF



**X.282 (06/99)** Elements of management information related to the OSI Data Link layer

136pp      E 16464    F 16465    S 16466      55 CHF

**X.283 (12/97)** Information technology – Elements of management information related to the OSI Network layer

Common text with ISO/IEC

288pp      E 13122    F 13123    S 13124      96 CHF

**X.284 (12/97)** Information technology – Elements of management information related to the OSI Transport Layer

Common text with ISO/IEC

164pp      E 13125    F 13126    S 13127      73 CHF

**X.287 (03/99)** Information technology – Open Systems Interconnection – Structure of management information: Managed objects for supporting upper layers

44pp      E 16402    F 16403    S 16404      22 CHF

### *Conformance testing*

**X.290 (04/95)** OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – General concepts

60pp      E 6639      F 6640      S 6641      25 CHF

**X.291 (04/95)** OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Abstract test suite specification

48pp      E 6402      F 6403      S 6404      20 CHF

**X.292 (05/02)** OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – The Tree And Tabular Combined Notation (TTCN)

248pp      E 22903    F 22904    S 22905      96 CHF

**X.293 (04/95)** OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Test realization

20pp      E 6656      F 6657      S 6658      15 CHF

**X.294 (04/95)** OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Requirements on test laboratories and clients for the conformance assessment process

44pp      E 6659      F 6660      S 6661      20 CHF

**X.295 (04/95)** OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Protocol profile test specification

24pp      E 6642      F 6643      S 6644      15 CHF

**X.296 (11/95)** OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Implementation conformance statements

64pp      E 7250      F 7251      S 7252      29 CHF

### *Interworking between networks*

#### *General*

**X.300 (10/96)** General principles for interworking between public networks and between public networks and other networks for the provision of data transmission services

56pp      E 10792    F 10793    S 10794      29 CHF

**X.301 (10/96)** Description of the general arrangements for call control within a subnetwork and between subnetworks for the provision of data transmission services

72pp      E 10176    F 10177    S 10178      34 CHF

**X.302 (11/88)** Description of the general arrangements for internal network utilities within a subnetwork and intermediate utilities between subnetworks for the provision of data transmission services

*Individually through the Electronic Bookshop:*      20 CHF

**X.305 (11/88)** Functionalities of subnetworks relating to the support of the OSI connection-mode network service

*Individually through the Electronic Bookshop:*      20 CHF

**X.320 (10/96)** General arrangements for interworking between integrated services digital networks (ISDNs) for the provision of data transmission services

20pp      E 10147    F 10148    S 10149      17 CHF

**X.321 (10/96)** General arrangements for interworking between Circuit-Switched Public Data Networks (CSPDNs) and Integrated Services Digital Networks (ISDNs) for the provision of data transmission services

*This Recommendation is also included but not published in I series under alias number I.540*

12pp      E 10150    F 10151    S 10152      12 CHF

**X.322 (11/88)** General arrangements for interworking between Packet-Switched Public Data Networks (PSPDNs) and Circuit-Switched Public Data Networks (CSPDNs) for the provision of data transmission services

*Individually through the Electronic Bookshop:*      20 CHF

**X.323 (11/88)** General arrangements for interworking between Packet-Switched Public Data Networks (PSPDNs)

*Individually through the Electronic Bookshop:*      20 CHF

**X.324 (11/88)** General arrangements for interworking between Packet-Switched Public Data Networks (PSPDNs) and public mobile systems for the provision of data transmission services

*Individually through the Electronic Bookshop:*      20 CHF

**X.325 (10/96)** General arrangements for interworking between Packet-Switched Public Data Networks (PSPDNs) and Integrated Services Digital Networks (ISDNs) for the provision of data transmission services

*This Recommendation is also included but not published in I series under alias number I.550*

12pp      E 10159    F 10160    S 10161      12 CHF

**X.326 (11/88)** General arrangements for interworking between Packet-Switched Public Data Networks (PSPDNs) and Common Channel Signalling Network (CCSN)

*Individually through the Electronic Bookshop:*      20 CHF

**X.327 (11/93)** General arrangements for interworking between Packet-Switched Public Data Networks (PSPDNs) and private data networks for the provision of data transmission services

9pp      E 5156    F 5220    S 5255      11 CHF

**X.328 (10/96)** General arrangements for interworking between Public Data Networks providing frame relay data transmission services and Integrated Services Digital Networks (ISDNs) for the provision of data transmission services

16pp      E 10352    F 10353    S 10354      12 CHF

**X.329 (03/00)** General arrangements for interworking between networks providing frame relay data transmission services and B-ISDN

24pp      E 18188    F 18189    S 18190      17 CHF

**X.340 (03/93)** General arrangements for interworking between a Packet-Switched Public Data Network (PSPDN) and the international telex network

9pp      E 3643    F 3642    S 3644      11 CHF

### *Satellite data transmission systems*

**X.350 (12/97)** General interworking requirements to be met for data transmission in international public mobile satellite systems

12pp      E 12731    F 12732    S 12733      12 CHF

**X.351 (11/88)** Special requirements to be met for Packet Assembly/Disassembly facilities (PADs) located at or in association with coast earth stations in the public mobile satellite service

*Individually through the Electronic Bookshop:*      20 CHF

**X.352 (11/88)** Interworking between packet-switched public data networks and public maritime mobile satellite data transmission systems

*Individually through the Electronic Bookshop:*      20 CHF

**X.353 (11/88)** Routing principles for interconnecting public maritime mobile satellite data transmission systems with public data networks

*Individually through the Electronic Bookshop:*      20 CHF

**X.361 (10/96)** Connection of VSAT systems with Packet-Switched Public Data Networks based on X.25 procedures

24pp      E 10355    F 10356    S 10357      17 CHF

**X.370 (11/88)    Withdrawn (10/96)**

Arrangements for the transfer of internetwork management information

*Deleted because it was such a general Recommendation that it served no useful practical purpose*

*Individually through the Electronic Bookshop:*

**X.371/Y.1402 (02/01)** General arrangements for interworking between Public Data Networks and the Internet

19pp            E 21749    F 21750    S 21751            12 CHF

**Message Handling Systems**

**X.400/F.400 (06/99)** Message handling services: Message handling system and service overview

To be published...

**X.402 (06/99)** Information technology – Message Handling Systems (MHS) – Overall Architecture

Common text with ISO/IEC

108pp            E 17401    F 17401            44 CHF

**X.403 (11/88)    Withdrawn (11/95)**

Message handling systems: conformance testing

Common text with ISO/IEC

*This Recommendation was withdrawn because conformance testing concepts and methods defined in it were related to the 1984 MHS Recommendations and were not aligned with either the first or second versions of conformance testing standards. ITU-T X.480 (1992) refers to the 1988 'Blue Book' MHS Recommendations and was better aligned with the testing standards*

*Individually through the Electronic Bookshop:*

**X.404 (06/99)** Information technology – Message Handling Systems (MHS): MHS routing – Guide for messaging systems managers

Common text with ISO/IEC

64pp            E 16427    F 16428    S 16429            29 CHF

**X.407 (11/88)    Withdrawn (11/95)**

Message handling systems: Abstract service definition conventions

Common text with ISO/IEC

*This Recommendation was not referenced from any Recommendation and some of its technical content was contained in ITU-T X.402 (1995)*

*Individually through the Electronic Bookshop:*

**X.408 (11/88)** Message handling systems: Encoded information type conversion rules

*Individually through the Electronic Bookshop:*    22 CHF

**X.410 (10/84)    Withdrawn (11/88)**

Message handling systems: remote operations and reliable transfer server

*Withdrawn on 25.11.1988*

**X.411 (06/99)** Information technology – Message Handling Systems (MHS): Message transfer system: abstract service definition and procedures

Common text with ISO/IEC

202pp            E 17395    F 17395            73 CHF

**X.412 (06/99)** Information technology – Message Handling System (MHS): MHS routing

76pp            E 16524    F 17399    S 17400            34 CHF

**X.413 (06/99)** Information technology – Message Handling Systems (MHS) – Message store: Abstract Service Definition

Common text with ISO/IEC

156pp            E 17237    F 17238    S 17239            61 CHF

**X.419 (06/99)** Information technology – Message Handling Systems (MHS): Protocol specifications

Common text with ISO/IEC

58pp            E 17353    F 17353            29 CHF

**X.420 (06/99)** Information technology – Message Handling Systems (MHS): Interpersonal messaging system

Common text with ISO/IEC

220pp            E 17404    F 17404            96 CHF

**X.421 (06/99)** Message Handling Systems: COMFAX use of MHS

20pp            E 18352    F 18353    S 18354            12 CHF

**X.435 (06/99)** Information technology – Message handling services (MHS): Electronic Data Interchange messaging system

Common text with ISO/IEC

120pp            E 16552    F 16553    S 16554            49 CHF

**X.440 (06/99)** Message handling systems: Voice messaging system

To be published...

**X.445 (04/95)** Asynchronous protocol specification – Provision of OSI connection mode network service over the telephone network

40pp E 6479 F 6480 S 6481 20 CHF

**X.446 (08/97)** Common messaging call API

288pp E 11948 F 11949 S 11950 96 CHF

**X.460 (04/95)** Information technology – Message Handling Systems (MHS) Management: Model and architecture

Common text with ISO/IEC

20pp E 6427 F 6856 S 6857 15 CHF

**X.462 (10/96)** Information technology – Message Handling Systems (MHS) Management: Logging information

Common text with ISO/IEC

96pp E 9640 F 9641 S 9642 39 CHF

**X.467 (10/96)** Information technology – Message Handling Systems (MHS) Management: Message transfer agent management

Common text with ISO/IEC

120pp E 9618 F 9619 S 9620 49 CHF

**X.480 (09/92) Withdrawn (03/00)**  
Message handling systems and directory services – conformance testing

*Withdrawn as it references documents that have been deleted by the ITU*

10pp E 3357 F 3356 S 3358 11 CHF

**X.481 (06/99)** Message handling systems – P2 protocol PICS proforma

28pp E 15651 F 15652 S 15653 17 CHF

**X.482 (06/99)** Message handling systems – P1 protocol PICS proforma

32pp E 15654 F 15655 S 15656 22 CHF

**X.483 (06/99)** Message handling systems – P3 protocol PICS proforma

44pp E 15685 F 15686 S 15687 22 CHF

**X.484 (06/99)** Message handling systems – P7 protocol PICS proforma

76pp E 15710 F 15711 S 15712 39 CHF

**X.485 (09/92)** Message handling systems: Voice messaging system Protocol Implementation Conformance Statement (PICS) proforma

27pp E 3468 F 3467 S 3469 15 CHF

**X.486 (06/99)** Message handling systems – Pdi protocol PICS proforma

24pp E 15636 F 15637 S 15638 17 CHF

**X.487 (06/99)** Message handling systems – IPM-MS attributes PICS proforma

32pp E 16277 F 16278 S 16279 17 CHF

**X.488 (06/99)** Message handling systems – EDI-MS attributes PICS proforma

12pp E 16280 F 16281 S 16282 17 CHF

### Directory

**X.500 (02/01)** Information technology – Open Systems Interconnection – The Directory: Overview of concepts, models and services

Common text with ISO/IEC

30pp E 21260 F 21261 S 21262 17 CHF

**X.501 (02/01)** Information technology – Open Systems Interconnection – The Directory: Models

Common text with ISO/IEC

240pp E 21308 F 21309 S 21310 96 CHF

**X.509 (03/00)** Information technology – Open Systems Interconnection – The Directory: Public-key and attribute certificate frameworks

146pp E 19454 F 19455 S 19456 61 CHF

### Directory

**X.509 (2000) Technical Cor.1 (10/01)**

**X.509 Cor2 (02/01)**

Common text with ISO/IEC

**X.509 (2000) Technical Cor.2 (04/02)**

**X.509 (2000) Corrigendum 3 (04/04)**

*This corrigendum cancels and replaces the text approved on 2003-02-13*

To be published...

**X.511 (02/01)** Information technology – Open Systems Interconnection – The Directory: Abstract service definition

Common text with ISO/IEC

110pp E 20873 F 20874 S 20875 44 CHF

**X.518 (02/01)** Information technology – Open Systems Interconnection – The Directory: Procedures for distributed operation

Common text with ISO/IEC

121pp E 21373 F 21374 S 21375 49 CHF

**X.519 (02/01)** Information technology – Open Systems Interconnection – The Directory: Protocol specifications

Common text with ISO/IEC

70pp E 21317 F 21318 S 21319 34 CHF

**X.520 (02/01)** Information technology – Open Systems Interconnection – The Directory: Selected attribute types

Common text with ISO/IEC

74pp E 21311 F 21312 S 21313 34 CHF

#### **X.520 (2001) Technical Cor.1 (04/02)**

**X.521 (02/01)** Information technology – Open Systems Interconnection – The Directory: Selected object classes

Common text with ISO/IEC

34pp E 21263 F 21264 S 21265 17 CHF

**X.525 (02/01)** Information technology – Open Systems Interconnection – The Directory: Replication

Common text with ISO/IEC

40pp E 21221 F 21222 S 21223 22 CHF

**X.530 (02/01)** Information technology – Open Systems Interconnection – The Directory: Use of systems management for administration of the Directory

Common text with ISO/IEC

94pp E 21314 F 21315 S 21316 39 CHF

#### **X.581 (11/95) Withdrawn (06/02)**

Information technology – Open Systems Interconnection – The Directory: Directory Access Protocol – Protocol Implementation Conformance Statement (PICS) proforma

*ITU-T Recs. X.581 and X.582 contain the PICS proforma based on the 1988 (first) edition of the Directory Specifications, while ITU-T Recs. X.583 through X.586 provide the PICS proformas for the second edition of the Directory Specifications. Since there are no plans to update these proformas to align with the new 2000/2001 (fourth) edition of the Directory specifications, X.581 and X.582 are considered as obsolete and are withdrawn*

28pp E 6687 F 7132 S 7133 15 CHF

#### **X.582 (11/95) Withdrawn (06/02)**

Information technology – Open Systems Interconnection – The Directory: Directory System Protocol – Protocol Implementation Conformance Statement (PICS) proforma

*ITU-T Recs. X.581 and X.582 contain the PICS proforma based on the 1988 (first) edition of the Directory Specifications, while ITU-T Recs. X.583 through X.586 provide the PICS proformas for the second edition of the Directory Specifications. Since there are no plans to update these proformas to align with the new 2000/2001 (fourth) edition of the Directory specifications, X.581 and X.582 are considered as obsolete and are withdrawn*

32pp E 6686 F 7147 S 7148 15 CHF

**X.583 (12/97)** Information technology – Open Systems Interconnection – The Directory: Protocol Implementation Conformance Statement (PICS) proforma for the Directory Access Protocol

Common text with ISO/IEC

52pp E 13506 F 13507 S 13508 22 CHF

**X.584 (12/97)** Information technology – Open Systems Interconnection – The Directory: Protocol Implementation Conformance Statement (PICS) proforma for the Directory System Protocol

Common text with ISO/IEC

52pp E 13478 F 13479 S 13480 29 CHF

**X.585 (12/97)** Information technology – Open Systems Interconnection – The Directory: Protocol Implementation Conformance Statement (PICS) proforma for the Directory Operational Binding Management Protocol

Common text with ISO/IEC

28pp E 13481 F 13482 S 13483 17 CHF

**X.586 (12/97)** Information technology – Open Systems Interconnection – The Directory: Protocol Implementation Conformance Statement (PICS) proforma for the Directory Information Shadowing Protocol

Common text with ISO/IEC

28pp	E 13465	F 13466	S 13467	17 CHF
------	---------	---------	---------	--------

## OSI networking and system aspects

### Networking

**X.601 (03/00)** Multi-peer communications framework

Common text with ISO/IEC

20pp	E 18573	F 18574	S 18575	17 CHF
------	---------	---------	---------	--------

### Networking

**X.602 (04/04)** Information technology – Group management protocol

To be published...

**X.603 (04/04)** Information technology – Relayed multicast protocol: Framework

To be published...

### Networking

**X.605 (09/98)** Information technology – Enhanced Communications Transport Service Definition

Common text with ISO/IEC

52pp	E 14474	F 14475	S 14476	29 CHF
------	---------	---------	---------	--------

### Networking

**X.606 (10/01)** Information technology – Enhanced communications transport protocol: Specification of simplex multicast transport

36pp	E 21385	F 21386	S 21387	17 CHF
------	---------	---------	---------	--------

**X.606.1 (02/03)** Information technology – Enhanced Communications Transport Protocol: Specification of QoS management for simplex multicast transport

46pp	E 23614	F 23615	S 23616	22 CHF
------	---------	---------	---------	--------

### Networking

**X.610 (09/92)** Provision and support of the OSI connection-mode Network service

26pp	E 3504	F 3503	S 3505	15 CHF
------	--------	--------	--------	--------

**X.612 (09/92)** Information technology – Provision of the OSI connection-mode network service by packet-mode terminal equipment connected to an Integrated Services Digital Network (ISDN)

Common text with ISO/IEC

19pp	E 3043	F 3091	S 3096	15 CHF
------	--------	--------	--------	--------

**X.613 (09/92)** Information technology – Use of X.25 Packet Layer Protocol in conjunction with X.21/X.21 *bis* to provide the OSI connection-mode Network service

Common text with ISO/IEC

11pp	E 3082	F 3092	S 3101	11 CHF
------	--------	--------	--------	--------

**X.614 (09/92)** Information technology – Use of X.25 Packet Layer Protocol to provide the OSI connection-mode Network service over the telephone network

Common text with ISO/IEC

9pp	E 3083	F 3093	S 3102	11 CHF
-----	--------	--------	--------	--------

**X.622 (07/94)** Information technology – Protocol for providing the connectionless-mode network service: Provision of the underlying service by an X.25 Subnetwork

Common text with ISO/IEC

11pp	E 5630	F 5950	S 5713	11 CHF
------	--------	--------	--------	--------

**X.623 (07/94)** Information technology – Protocol for providing the connectionless-mode Network service: Provision of the underlying service by a subnetwork that provides the OSI Data Link service

Common text with ISO/IEC

10pp	E 5631	F 5715	S 5714	11 CHF
------	--------	--------	--------	--------

**X.625 (10/96)** Information technology – Protocol for providing the connectionless-mode Network service: Provision of the underlying service by ISDN circuit-switched B-channels

Common text with ISO/IEC

16pp	E 9672	F 9673	S 9674	12 CHF
------	--------	--------	--------	--------

### Efficiency

**X.630 (09/98)** Efficient Open Systems Interconnection (OSI) operations

Common text with ISO/IEC

32pp	E 14427	F 14428	S 14429	17 CHF
------	---------	---------	---------	--------



**X.633 (10/96)** Information technology – Open systems interconnection – Network Fast Byte Protocol  
Common text with ISO/IEC  
28pp E 9882 F 9883 S 9884 17 CHF

**X.633 Addendum 1 (09/98)** SDL specifications  
*This text is published in English only. It includes one diskette containing the SDT files of the SDL specifications of the Network Fast Byte protocol*  
48pp E 14768 62 CHF

**X.634 (10/96)** Information technology – Open Systems Interconnection – Transport Fast Byte Protocol  
Common text with ISO/IEC  
28pp E 9885 F 9886 S 9887 17 CHF

**X.634 Addendum 1 (09/98)** SDL specifications  
*This text is published in English only.*  
*This Annex includes one diskette containing the SDT files of the SDL specifications of the Transport Fast Byte protocol.*  
28pp E 14764 57 CHF

**X.637 (10/96)** Basic connection-oriented common upper layer requirements  
24pp E 10358 F 10359 S 10360 17 CHF

**X.638 (10/96)** Minimal OSI facilities to support basic communications applications  
56pp E 10517 F 10518 S 10519 29 CHF

**X.639 (10/96)** Basic connection-oriented requirements for ROSE-based profiles  
16pp E 10179 F 10180 S 10181 12 CHF

### *Quality of service*

**X.641 (12/97)** Information technology – Quality of service: Framework  
Common text with ISO/IEC  
52pp E 13037 F 13038 S 13039 29 CHF

**X.642 (09/98)** Information technology – Quality of service – Guide to methods and mechanisms  
Common text with ISO/IEC  
32pp E 14468 F 14469 S 14470 17 CHF

### *Naming, Addressing and Registration*

**X.650 (10/96)** Information technology – Open Systems Interconnection – Basic Reference Model: Naming and addressing  
Common text with ISO/IEC  
28pp E 9684 F 9685 S 9686 17 CHF

**X.660 (09/92)** Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: General procedures  
Common text with ISO/IEC

15pp E 3042 F 3090 S 3095 15 CHF

**X.660 (1992) Amendment 1 (10/96)** Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: General procedures – Amend.1: Incorporation of object identifiers components  
12pp E 9725 F 9726 S 9727 12 CHF

**X.660 (1992) Amendment 2 (08/97)** Incorporation of the root arcs of the object identifier tree  
12pp E 12747 F 12748 S 12749 12 CHF

**X.662 (08/97)** Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: Registration of values of RH-name-tree components for joint ISO and ITU-T use  
Common text with ISO/IEC

8pp E 11735 F 11736 S 11737 9 CHF

**X.665 (09/92)** Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: Application processes and application entities  
Common text with ISO/IEC

6pp E 3286 F 3285 S 3287 11 CHF

**X.666 (08/97)** Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: Assignment of international names for use in specific contexts  
28pp E 11738 F 11739 S 11740 17 CHF

**X.669 (10/96)** Procedures for the operation of OSI registration authorities: Registration procedures for the ITU-T subordinate arcs

8pp E 10461 F 10462 S 10463 9 CHF

**X.669 (1996) Corrigendum 1 (06/99)**

To be published...

**X.670 (10/96)** Procedures for registration agents operating on behalf of organizations to register organization names subordinate to country names  
12pp E 10445 F 10446 S 10447 12 CHF

**X.671 (10/96)** Procedures for a registration authority operating on behalf of countries to register organization names subordinate to country names  
8pp E 10448 F 10449 S 10450 9 CHF

### *Abstract Syntax Notation One (ASN.1)*

**X.680/X.680-X.693/X.680-X.693 (07/02)** Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation  
146pp E 22476 55 CHF

**X.680 (2002) Amendment 1 (10/03)** Support for EXTENDED-XER

To be published...

**X.680-X.693/X.693 (12/01)** Information technology – ASN.1 encoding rules: XML encoding rules  
18pp E 21711 F 21712 S 21713 12 CHF

**X.680-X.693/X.692 (03/02)** Information technology – ASN.1 encoding rules: Specification of Encoding Control Notation (ECN)

*An electronic version of Annex E of this Recommendation with an associated ECN Huffman encoding macro is also published independently and freely available from ITU website*

196pp E 23490 F 23491 S 23492 73 CHF

**X.680-X.693/X.682 (07/02)** Information technology – Abstract Syntax Notation One (ASN.1): Constraint specification  
18pp E 23479 12 CHF

**X.680-X.693/X.681/X.680-X.693 (07/02)** Information technology – Abstract Syntax Notation One (ASN.1): Information object specification  
42pp E 23493 22 CHF

**X.680-X.693/X.683 (07/02)** Information technology – Abstract Syntax Notation One (ASN.1): Parameterization of ASN.1 specifications  
22pp E 23496 17 CHF

**X.680-X.693/X.690 (07/02)** Information technology – ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)

36pp E 23482 17 CHF

**X.680-X.693/X.692/X.691/X.690/X.683/X.682/X.681/X.680 (07/02)** Information Technology – Abstract Syntax Notation One (ASN.1) & ASN.1 encoding rules

*This word collective file contains automatic cross-linkings, and is available in English only. Please read carefully the readme.rtf file before opening it.*

146pp E 23469 197 CHF

**X.680-X.693/X.691 (07/02)** Information technology – ASN.1 encoding rules: Specification of Packed Encoding Rules (PER)

56pp E 23485 29 CHF

**X.680-X.693/X.680/X.680-X.693 (07/02)** Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation

146pp E 23476 55 CHF

**X.681/X.680-X.693/X.680-X.693 (07/02)** Information technology – Abstract Syntax Notation One (ASN.1): Information object specification

42pp E 23493 22 CHF

**X.681 (2002) Amendment 1 (10/03)** Support for EXTENDED-XER

To be published...

**X.682/X.680-X.693 (07/02)** Information technology – Abstract Syntax Notation One (ASN.1): Constraint specification

18pp E 23479 12 CHF

**X.683/X.680-X.693 (07/02)** Information technology – Abstract Syntax Notation One (ASN.1): Parameterization of ASN.1 specifications

22pp E 23496 17 CHF

**X.690/X.680-X.693 (07/02)** Information technology – ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)

36pp E 23482 17 CHF

**X.690 (2002) Amendment 1 (10/03)** Support for  
EXTENDED-XER

To be published...

**X.691/X.680-X.693 (07/02)** Information  
technology – ASN.1 encoding rules: Specification of  
Packed Encoding Rules (PER)

56pp E 23485 29 CHF

**X.691 (2002) Amendment 1 (10/03)** Support for  
EXTENDED-XER

To be published...

**X.691 (2002) Erratum 1 (06/03)**

**X.692/X.680-X.693 (03/02)** Information  
technology – ASN.1 encoding rules: Specification of  
Encoding Control Notation (ECN)

*An electronic version of Annex E of this Recommendation  
with an associated ECN Huffman encoding macro is also  
published independently and freely available from ITU  
website*

196pp E 23490 F 23491 S 23490 73 CHF

**X.692 (2002) Annex E (03/02)** Support for Huffman  
encodings

*This electronic file reproduces Annex E of ITU-T Rec.  
X.692 (03/2002) and contains an ECN Huffman encoding  
macro in Visual Basic for Word 2000*

**X.693/X.680-X.693 (12/01)** Information  
technology – ASN.1 encoding rules: XML encoding  
rules

18pp E 21711 F 21712 S 21713 12 CHF

**X.693 (2001) Amendment 1 (10/03)** XER encoding  
instructions and EXTENDED-XER

To be published...

**X.694 (01/04)** Information technology – ASN.1  
encoding rules: Mapping W3C XML schema  
definitions into ASN.1

Common text with ISO/IEC

To be published...

## OSI management

### *Systems Management framework and architecture*

**X.700 (09/92)** Management framework for Open  
Systems Interconnection (OSI) for CCITT  
applications

11pp E 3438 F 3437 S 3439 11 CHF

**X.701 (08/97)** Information technology – Open  
Systems Interconnection – Systems management  
overview

Common text with ISO/IEC

32pp E 12568 F 12569 S 12570 17 CHF

**X.702 (11/95)** Information technology – Open  
Systems Interconnection – Application context for  
systems management with transaction processing

Common text with ISO/IEC

16pp E 6701 F 7102 S 7103 11 CHF

**X.703 (10/97)** Information technology – Open  
Distributed Management Architecture

Common text with ISO/IEC

56pp E 12857 F 12858 S 12859 29 CHF

**X.703 (1997) Amendment 1 (06/98)** Support using  
Common Object Request Broker Architecture  
(CORBA)

12pp E 14172 F 14173 S 14174 12 CHF

### *Management Communication Service and Protocol*

**X.710 (10/97)** Information technology – Open  
Systems Interconnection – Common Management  
Information service

36pp E 12481 F 12482 S 12483 22 CHF

**X.711 (10/97)** Information technology – Open  
Systems Interconnection – Common management  
information protocol: Specification

40pp E 12616 F 12617 S 12618 22 CHF

**X.711 (1997) Technical Cor. 1 (03/99)**

**X.711 (1997) Technical Cor.2 (02/00)**

Common text with ISO/IEC

**X.712 (09/92)** Information technology – Open  
Systems Interconnection – Common management  
information protocol: Protocol Implementation  
Conformance Statement (PICS) proforma

Common text with ISO/IEC

61pp E 3084 F 3094 S 3103 29 CHF

**X.712 (1992) Technical Cor. 3 (06/98)**

**X.712 (1992) Technical Cor. 1 and Cor.2  
(10/96)** Technical Corrigenda 1 and 2

8pp

## *Structure of Management Information*

**X.720 (01/92)** Information technology – Open Systems Interconnection – Structure of management information: Management information model

Common text with ISO/IEC

31pp E 3158 F 3157 S 3159 15 CHF

**X.720 (1992) Amendment 1 (11/95)** Generalization of terms

8pp E 6694 F 6947 S 6948 8 CHF

**X.720 (1992) Technical Cor. 1 (02/94)**

**X.721 (02/92)** Information technology – Open Systems Interconnection – Structure of management information: Definition of management information

Common text with ISO/IEC

63pp E 2828 F 2793 S 2863 29 CHF

**X.721 (1992) Amendment 1 (08/01)** States to support lifecycle

10pp E 21288 F 21289 S 21290 9 CHF

**X.721 (1992) Technical Cor.1 (02/94)**

**X.721 (1992) Technical Cor.2 (10/96)**

**X.721 (1992) Technical Cor.3 (06/98)**

**X.721 (1992) Technical Cor.4 (02/00)**

**X.722 (01/92)** Information technology – Open Systems Interconnection – Structure of Management Information: Guidelines for the definition of managed objects

Common text with ISO/IEC

50pp E 3045 F 3086 S 3046 24 CHF

**X.722 (1992) Amendment 1 (11/95)** Set by create and component registration

8pp E 6695 F 6964 S 6965 8 CHF

**X.722 (1992) Amendment 2 (08/97)** Addition of the NO-MODIFY syntax element and guidelines extension

16pp E 12484 F 12485 S 12486 12 CHF

**X.722 (1992) Amendment 3 (08/97)** Guidelines for the use of Z in formalizing the behaviour of managed objects

24pp E 12534 F 12535 S 12536 17 CHF

**X.722 (1992) Technical Cor. 1 (10/96)**

**X.722 (1992) Technical Cor.2 (02/00)**

Common text with ISO/IEC

**X.723 (11/93)** Information technology – Open Systems Interconnection – Structure of management information: Generic management information

Common text with ISO/IEC

18pp E 4488 F 5213 S 5248 15 CHF

**X.723 (1993) Technical Cor. 1 (06/98)**

**X.723 (1993) Technical Cor.2 (02/00)**

**X.724 (10/96)** Information technology – Open Systems Interconnection – Structure of management information: Requirements and guidelines for implementation conformance statement proformas associated with OSI management

Common text with ISO/IEC

64pp E 9646 F 9647 S 9648 29 CHF

**X.725 (11/95)** Information technology – Open Systems Interconnection – Structure of management information: General Relationship Model

Common text with ISO/IEC

52pp E 6750 F 9769 S 9770 29 CHF

**X.727 (03/99)** Information technology – Open Systems Interconnection – Structure of management information: Systems management application layer managed objects

Common text with ISO/IEC

16pp E 16090 F 16091 S 16092 17 CHF

## *Management functions and ODMA functions*

**X.730 (01/92)** Information technology – Open Systems Interconnection – Systems Management: Object management function

Common text with ISO/IEC

24pp E 3047 F 3087 S 3098 15 CHF

**X.730 (1992) Amendment 1 (04/95)** Implementation Conformance Statement proformas

32pp E 6423 F 6910 S 6911 15 CHF

**X.730 (1992) Am1 Technical Cor.1 (10/96)**

**X.731 (01/92)** Information technology – Open Systems Interconnection – Systems Management: State management function

Common text with ISO/IEC

23pp E 3044 F 3085 S 3097 15 CHF

**X.731 (1992) Amendment 1 (04/95)** Implementation Conformance Statement proformas

24pp E 6422 F 6912 S 6913 15 CHF

**X.731 (1992) Am1Technical Cor.1 (10/96)**

**X.731 (1992) Amendment 2 (01/01)** Amendment to X.721 and X.731 to support LIFECYCLE state

10pp E 19903 F 19904 S 19905 9 CHF

**X.731 (1992) Technical Cor. 1 (04/95)**

**X.731 (1992) Technical Cor. 2 (01/01)**

**X.732 (01/92)** Information technology – Open Systems Interconnection – Systems Management: Attributes for representing relationships

Common text with ISO/IEC

17pp E 3048 F 3088 S 3099 15 CHF

**X.732 (1992) Amendment 1 (04/95)** Implementation Conformance Statement proformas

28pp E 6425 F 6949 S 6950 15 CHF

**X.732 (1992) Am1Technical Cor.1 (10/96)**

**X.733 (02/92)** Information technology – Open Systems Interconnection – Systems Management: Alarm reporting function

Common text with ISO/IEC

20pp E 2830 F 2795 S 2865 15 CHF

**X.733 (1992) Amendment 1 (04/95)** Implementation Conformance Statement proformas

36pp E 6293 F 6462 S 6723 20 CHF

**X.733 Amendment 1 Corrigendum 1 (10/96)**

To be published...

**X.733 (1992) Technical Cor. 1 (02/94)**

**X.733 (1992) Technical Cor. 2 (03/99)**

**X.733 Amendment 1 (10/96)** Technical Corrigendum 2

Common text with ISO/IEC

8pp

**X.734 (09/92)** Information technology – Open Systems Interconnection – Systems Management: Event report management function

Common text with ISO/IEC

19pp E 3066 F 3089 S 3100 15 CHF

**X.734 (1992) Amendment 1 (04/95)** Implementation Conformance Statement proformas

28pp E 6292 F 6738 S 6525 15 CHF

**X.734 (1992) Am1Technical Cor.1 (10/96)**

**X.734 (1992) Technical Cor. 1 (02/94)**

**X.734 (1992) Technical Cor. 2 (03/99)**

**X.735 (09/92)** Information technology – Open Systems Interconnection – Systems Management: Log control function

Common text with ISO/IEC

20pp E 3130 F 3129 S 3131 15 CHF

**X.735 (1992) Amendment 1 (04/95)** Implementation Conformance Statement proformas

8pp E 6290 F 6896 S 6739 15 CHF

**X.735 (1992) Am1Technical Cor.1 (10/96)**

**X.735 (1992) Technical Cor.1 (03/01)**

Common text with ISO/IEC

**X.736 (01/92)** Information technology – Open Systems Interconnection – Systems Management: Security alarm reporting function

Common text with ISO/IEC

15pp E 2807 F 2769 S 2842 15 CHF

**X.736 (1992) Amendment 1 (04/95)** Implementation Conformance Statement proformas

8pp E 6649 F 6740 S 6718 15 CHF

**X.736 (1992) Amd.1Technical Cor.1 (10/96)**

**X.737 (11/95)** Information technology – Open  
Systems Interconnection – Systems management:  
Confidence and diagnostic test categories  
Common text with ISO/IEC  
68pp E 6781 F 7511 S 7512 30 CHF

**X.737 (1995) Technical Cor. 1 (06/98)**

**X.737 (1995) Technical Cor.2 (02/00)**

**X.737 (1995) Technical Cor.3 (03/01)**

Common text with ISO/IEC

**X.738 (11/93)** Information technology – Open  
Systems Interconnection – Systems management:  
Summarization function  
Common text with ISO/IEC  
59pp E 5704 F 6296 S 6183 30 CHF

**X.738 (1993) Amendment 1 (10/96)** Implementation  
conformance statement proformas  
92pp E 9621 F 9622 S 9623 39 CHF

**X.738 (1993) Technical Cor. 1 (06/98)**

**X.738 (1993) Technical Cor.2 (02/00)**

**X.739 (11/93)** Information technology – Open  
Systems Interconnection – Systems Management:  
Metric objects and attributes  
Common text with ISO/IEC  
50pp E 5448 F 6295 S 6184 24 CHF

**X.739 (1993) Amendment 1 (08/97)** Implementation  
conformance statement proformas  
60pp E 12619 F 12620 S 12621 29 CHF

**X.739 (1993) Technical Cor. 1 (06/98)**

**X.740 (09/92)** Information technology – Open  
Systems Interconnection – Systems Management:  
Security audit trail function  
Common text with ISO/IEC  
27pp E 3108 F 3107 S 3109 15 CHF

**X.740 (1992) Technical Cor. 1 (04/95)**

**X.740 (1992) Technical Cor. 2 (10/96)**

**X.740 (1992) Technical Cor. 3 (06/98)**

**X.741 (04/95)** Information technology – Open  
Systems Interconnection – Systems management:  
Objects and attributes for access control  
Common text with ISO/IEC  
120pp E 6327 F 6769 S 6730 44 CHF

**X.741 (1995) Technical Cor. 1 (10/96)**

**X.741 (1995) Technical Cor. 2 (06/98)**

**X.741 (1995) Technical Cor.3 (02/00)**

**X.742 (04/95)** Information technology – Open  
Systems Interconnection – Systems management:  
Usage metering function for accounting purposes  
Common text with ISO/IEC  
50pp E 6289 F 6735 S 6722 25 CHF

**X.742 (1995) Amendment 1 (10/97)** Implementation  
conformance statement proformas  
52pp E 12845 F 12846 S 12847 29 CHF

**X.742 (1995) Technical Cor. 1 (06/98)**

**X.742 (1995) Technical Cor.2 (02/00)**

**X.743 (06/98)** Information technology – Open  
Systems Interconnection – Systems Management:  
Time Management Function  
Common text with ISO/IEC  
92pp E 14221 F 14222 S 14223 96 CHF

**X.743 (1998) Technical Cor.1 (03/01)**

**X.744 (10/96)** Information technology – Open  
Systems Interconnection – Systems management:  
Software Management function  
Common text with ISO/IEC  
140pp E 9965 F 9966 S 9967 55 CHF

**X.744 (1996) Technical Cor. 1 (06/98)**

Common text with ISO/IEC

*This Technical Corrigendum applies to the English  
electronic version of ITU-T Rec. X.744, and is available in  
electronic format in English only.*

**X.744 (1996) Technical Cor.2 (02/00)**

**X.744 (1996) Technical Cor.3 (03/01)**

**X.744.1 (03/03)** CORBA-based TMN software  
management service  
77pp E 24219 F 24220 S 24221 34 CHF

**X.745 (11/93)** Information technology – Open  
Systems Interconnection – Systems Management:  
Test management function  
Common text with ISO/IEC  
48pp E 5082 F 5642 S 5643 20 CHF



**X.745 (1993) Technical Cor. 1 (08/97)**

**X.745 (1993) Technical Cor. 2 (06/98)**

**X.745 (1993) Technical Cor.3 (02/00)**

**X.746 (02/00)** Information technology – Open  
Systems Interconnection – Systems management:  
Scheduling function

Common text with ISO/IEC

50pp E 20619 F 20620 S 20621 22 CHF

**X.746 Erratum (02/00)** Erratum to pre-published  
Recommendation ITU-T X.746 (02/00)

**X.748 (03/99)** Information technology – Open  
Systems Interconnection – Systems Management:  
Response Time Monitoring Function

Common text with ISO/IEC

92pp E 16502 F 16503 S 16504 39 CHF

**X.749 (08/97)** Information technology – Open  
Systems Interconnection – Systems management:  
Management domain and management policy  
management function

Common text with ISO/IEC

104pp E 11970 F 11971 S 11972 44 CHF

**X.750 (10/96)** Information technology – Open  
Systems Interconnection – Systems management:  
Management knowledge management function

Common text with ISO/IEC

108pp E 9719 F 9720 S 9721 44 CHF

**X.750 (1996) Amendment 1 (10/97)** Extension for  
General Relationship model

20pp E 12848 F 12849 S 12850 17 CHF

**X.750 (1996) Technical Cor.1 (02/00)**

**X.751 (11/95)** Information technology – Open  
Systems Interconnection – Systems management:  
Changeover function

Common text with ISO/IEC

60pp E 6759 F 10065 S 10066 29 CHF

**X.751 (1995) Technical Cor. 1 (06/98)**

**X.751 (1995) Technical Cor.2 (02/00)**

**X.753 (10/97)** Information technology – Open  
Systems Interconnection – Systems management:  
Command sequencer for systems management

Common text with ISO/IEC

180pp E 13006 F 13007 S 13008 73 CHF

**X.754 (02/00)** Enhanced Event Control Function

20pp E 20434 F 20435 S 20436 17 CHF

**X.770 (01/01)** ODMA notification dispatch function

Common text with ISO/IEC

32pp E 20479 F 20480 S 20481 22 CHF

**X.780 (01/01)** TMN guidelines for defining CORBA  
managed objects

86pp E 20494 F 20495 S 20496 39 CHF

**X.780 (2001) Amendment 1 (05/02)** System Objects  
and user guide for bulk attribute retrieval

14pp E 22264 F 22265 S 22266 12 CHF

**X.780 (2001) Corrigendum 1 (10/01)**

**X.780 (2001) Corrigendum 2 (05/02)**

**X.780.1 (08/01)** TMN guidelines for defining coarse-  
grained CORBA managed object interfaces

32pp E 21901 F 21902 S 21903 17 CHF

**X.780.1 (2001) Amendment 1 (05/02)** System  
facades and user guide for bulk attribute retrieval

12pp E 22290 F 22291 S 22292 9 CHF

**X.780.1 (2001) Corrigendum 1 (05/02)**

**X.781 (08/01)** Requirements and guidelines for  
Implementation Conformance Statements proformas  
associated with CORBA-based systems

32pp E 21793 F 21794 S 21795 17 CHF

**X.790 (11/95)** Trouble management function for  
ITU-T applications

120pp E 6473 F 6474 S 6475 44 CHF

**X.790 (1995) Amendment 1 (10/96)** Implementation  
conformance statement proformas

132pp E 10182 F 10183 S 10184 55 CHF

**X.790 (1995) Corrigendum 1 (03/99)****X.790 (1995) Corrigendum 2 (03/01)**

**X.791 (10/96)** Profile for trouble management function for ITU-T applications

152pp E 11049 F 11050 S 11051 61 CHF

**X.792 (03/99)** Configuration audit support function for ITU-T applications

20pp E 15931 F 15932 S 15933 17 CHF

**X.792 (1999) Corrigendum 1 (08/01)****Security**

**X.800 (03/91)** Security architecture for Open Systems Interconnection for CCITT applications

46pp E 2110 F 2109 S 2111 17 CHF

**X.800 (1991) Amendment 1 (10/96)** Layer Two Security Service and Mechanisms for LANs

8pp E 10483 F 10484 S 10485 9 CHF

**X.802 (04/95)** Information technology – Lower layers security model

Common text with ISO/IEC

24pp E 6122 F 6460 S 6696 15 CHF

**X.803 (07/94)** Information technology – Open Systems Interconnection – Upper layers security model

Common text with ISO/IEC

28pp E 5716 F 6486 S 6698 15 CHF

**X.805 (10/03)** Security architecture for systems providing end-to-end communications

28pp E 24745 F 24746 S 24747 17 CHF

**X.810 (11/95)** Information technology – Open Systems Interconnection – Security frameworks for open systems: Overview

Common text with ISO/IEC

28pp E 6700 F 7134 S 7135 15 CHF

**X.811 (04/95)** Information technology – Open Systems Interconnection – Security frameworks for open systems: Authentication framework

Common text with ISO/IEC

52pp E 6430 F 7050 S 7051 25 CHF

**X.812 (11/95)** Information technology – Open Systems Interconnection – Security frameworks for open systems: Access control framework

44pp E 6748 F 7513 S 7514 22 CHF

**X.813 (10/96)** Information technology – Open Systems Interconnection – Security frameworks for open systems: Non-repudiation framework

Common text with ISO/IEC

28pp E 9742 F 9743 S 9744 17 CHF

**X.814 (11/95)** Information technology – Open Systems Interconnection – Security frameworks for open systems: Confidentiality framework

Common text with ISO/IEC

24pp E 6749 F 7470 S 7471 17 CHF

**X.815 (11/95)** Information technology – Open Systems Interconnection – Security frameworks for open systems: Integrity framework

Common text with ISO/IEC

24pp E 6744 F 7372 S 7373 17 CHF

**X.816 (11/95)** Information technology – Open Systems Interconnection – Security frameworks for open systems: Security audit and alarms framework

Common text with ISO/IEC

24pp E 6697 F 7349 S 7350 15 CHF

**X.830 (04/95)** Information technology – Open Systems Interconnection – Generic upper layers security: Overview, models and notation

Common text with ISO/IEC

60pp E 6431 F 7052 S 7053 25 CHF

**X.831 (04/95)** Information technology – Open Systems Interconnection – Generic upper layers security: Security Exchange Service Element (SESE) service definition

Common text with ISO/IEC

8pp E 6426 F 6966 S 6967 11 CHF

**X.832 (04/95)** Information technology – Open Systems Interconnection – Generic upper layers security: Security Exchange Service Element (SESE) protocol specification

Common text with ISO/IEC

20pp E 6429 F 6968 S 6969 15 CHF

**X.833 (04/95)** Information technology – Open Systems Interconnection – Generic upper layers security: Protecting transfer syntax specification

Common text with ISO/IEC

12pp E 6428 F 6970 S 6971 11 CHF

**X.834 (10/96)** Information technology – Open Systems Interconnection – Generic Upper Layers Security: Security Exchange Service Element (SESE) Protocol Implementation Conformance Statement (PICS) proforma

Common text with ISO/IEC

12pp E 9687 F 9688 S 9689 12 CHF

**X.835 (10/96)** Information technology – Open Systems Interconnection – Generic Upper Layers Security: Protecting transfer syntax Protocol Implementation Conformance Statement (PICS) proforma

Common text with ISO/IEC

16pp E 9728 F 9729 S 9730 12 CHF

**X.841 (10/00)** Information technology – Security techniques – Security information objects for access control

28pp E 19740 F 19741 S 19742 17 CHF

**X.842 (10/00)** Information technology – Security techniques – Guidelines for the use and management of trusted third party services

44pp E 19798 F 19799 S 19800 22 CHF

**X.843 (10/00)** Information technology – Security techniques – Specification of TTP services to support the application of digital signatures

62pp E 19795 F 19796 S 19797 29 CHF

## OSI applications

### *Commitment, Concurrency and Recovery*

**X.851 (12/97)** Information technology – Open Systems Interconnection – Service definition for the Commitment, Concurrency and Recovery service element

68pp E 12920 F 12921 S 12922 29 CHF

**X.852 (12/97)** Information technology – Open Systems Interconnection – Protocol for the Commitment, Concurrency and Recovery service element: Protocol specification

60pp E 12923 F 12924 S 12925 29 CHF

**X.853 (11/95)** Information technology – Open Systems Interconnection – Protocol for the Commitment, Concurrency and Recovery service element: Protocol Implementation Conformance Statement (PICS) proforma

Common text with ISO/IEC

28pp E 6751 F 9761 S 9764 17 CHF

### *Transaction processing*

**X.860 (12/97)** Open Systems Interconnection – Distributed Transaction Processing: Model

Common text with ISO/IEC

44pp E 13040 F 13041 S 13042 22 CHF

**X.861 (12/97)** Open Systems Interconnection – Distributed Transaction Processing: Service definition

Common text with ISO/IEC

144pp E 13085 F 13086 S 13087 55 CHF

**X.862 (12/97)** Open Systems Interconnection – Distributed Transaction Processing: Protocol specification

728pp E 14224 F 14225 S 14226 248 CHF

**X.863 (07/94)** Information technology – Open Systems Interconnection – Distributed Transaction Processing: Protocol Implementation Conformance Statement (PICS) proforma

Common text with ISO/IEC

30pp E 5552 F 6254 S 5958 20 CHF

### *Remote operations*

**X.880 (07/94)** Information technology – Remote Operations: Concepts, model and notation

Common text with ISO/IEC

37pp E 5632 F 5959 S 5960 20 CHF

**X.880 (1994) Amendment 1 (11/95)** Built-in operations

12pp E 6703 F 6972 S 6973 11 CHF

**X.880 (1994) Technical Cor. 1 (07/95)**

**X.881 (07/94)** Information technology – Remote Operations: OSI realizations – Remote Operations Service Element (ROSE) service definition

Common text with ISO/IEC

31pp E 5633 F 6257 S 6116 20 CHF

**X.881 (1994) Amendment 1 (11/95)** Mapping to A-UNIT-DATA service and built-in operations

12pp E 6678 F 6951 S 6952 11 CHF

**X.882 (07/94)** Information technology – Remote Operations: OSI realizations – Remote Operations Service Element (ROSE) protocol specification

Common text with ISO/IEC

47pp E 5634 F 6262 S 6100 25 CHF

**X.882 (1994) Amendment 1 (11/95)** Mapping to A-UNIT-DATA service and built-in operations

12pp E 6771 F 6974 S 6975 12 CHF

**X.882 (1994) Technical Cor. 1 (07/95)**

## Open distributed processing

**X.901 (08/97)** Information technology – Open distributed processing – Reference Model: Overview

Common text with ISO/IEC

84pp E 11837 F 11838 S 11839 39 CHF

**X.902 (11/95)** Information technology – Open distributed processing – Reference Model: Foundations

Common text with ISO/IEC

24pp E 6745 F 9690 S 9691 17 CHF

**X.903 (11/95)** Information technology – Open distributed processing – Reference Model: Architecture

Common text with ISO/IEC

64pp E 6747 F 9977 S 9978 29 CHF

**X.904 (12/97)** Information technology – Open distributed processing – Reference Model: Architectural semantics

36pp E 12926 F 12927 S 12928 17 CHF

**X.904 (1997) Amendment 1 (03/00)** Amendment 1: Computational formalization

39pp E 18765 F 18766 S 18767 22 CHF

**X.910 (09/98)** Information technology – Open distributed processing – Naming framework

Common text with ISO/IEC

32pp E 14680 F 14681 S 14682 17 CHF

**X.911 (10/01)** Information technology – Open Distributed Processing – Reference Model – Enterprise Language

34pp E 21391 F 21392 S 21393 17 CHF

**X.920 (12/97)** Information technology – Open distributed processing – Interface Definition Language

Common text with ISO/IEC

36pp E 13305 F 13306 S 13307 22 CHF

**X.930 (09/98)** Information technology – Open distributed processing – Interface references and binding

Common text with ISO/IEC

40pp E 14320 F 14321 S 14322 22 CHF

**X.931 (06/99)** Information technology – Open distributed processing – Protocol support for computational interactions

Common text with ISO/IEC

36pp E 16294 F 16295 S 16296 22 CHF

**X.950 (08/97)** Information technology – Open distributed processing – Trading function: Specification

Common text with ISO/IEC

88pp E 11824 F 11825 S 11826 39 CHF

**X.952 (12/97)** Information technology – Open distributed processing – Trading function: Provision of trading function using OSI Directory service

Common text with ISO/IEC

56pp E 13265 F 13266 S 13267 29 CHF

**X.960 (06/99)** Information Technology – Open Distributed Processing – Type Repository Function

Common text with ISO/IEC

36pp E 17572 F 17573 S 17574 22 CHF

## Open Systems Interconnection

### X.960 Erratum 1 (10/02)

**X.1081 (04/04)** The telebiometric multimodal model  
– A framework for the specification of security and  
safety aspects of telebiometrics

To be published...

**X.1121 (04/04)** Framework of security technologies  
for mobile end-to-end communications

To be published...

### SERIES Y

## Global information infrastructure, Internet protocol aspects and Next Generation Networks

## Global information infrastructure and Internet protocol aspects

### General

**Y.100 (06/98)** General overview of the Global  
Information Infrastructure standards development  
16pp E 13898 F 13899 S 13900 12 CHF

**Y.101 (03/00)** Global Information Infrastructure  
terminology: Terms and definitions  
22pp E 19418 F 19419 S 19420 17 CHF

**Y.110 (06/98)** Global Information Infrastructure  
principles and framework architecture  
44pp E 14104 F 14105 S 14106 22 CHF

**Y.120 (06/98)** Global Information Infrastructure  
scenario methodology  
16pp E 13889 F 13890 S 13891 12 CHF

**Y.120 Annex A (02/99)** Examples of use  
28pp E 15608 F 15609 S 15610 17 CHF

### Y.120 (1998) Corrigendum 1 (11/00)

**Y.130 (03/00)** Information communication  
architecture  
50pp E 19495 F 19496 S 19497 22 CHF

**Y.140 (11/00)** Global Information Infrastructure  
(GII): Reference points for interconnection  
framework  
36pp E 20264 F 20265 S 20266 17 CHF

## Overall network aspects and functions

### Performance objectives

**Y.801/Y.1501/L.351 (10/00)** Relationships among  
ISDN, Internet protocol, and GII performance  
recommendations

24pp E 18937 F 18938 S 18939 17 CHF

**Y.1001 (11/00)** IP Framework – A framework for  
convergence of telecommunications network and IP  
network technologies

34pp E 20342 F 20343 S 20344 17 CHF

**Y.1221 (03/02)** Traffic control and congestion  
control in IP based networks

28pp E 22157 F 22158 S 22159 17 CHF

**Y.1231 (11/00)** IP Access Network Architecture

19pp E 20061 F 20062 S 20063 17 CHF

### Internet protocol aspects

**Y.1241 (03/01)** Support of IP-based services using IP  
transfer capabilities

22pp E 20179 F 20180 S 20181 17 CHF

**Y.1242/G.769 (08/02)** Circuit Multiplication  
Equipment optimized for IP-based networks

32pp E 23167 F 23168 S 23169 17 CHF

**Y.1251 (08/02)** General architectural model for  
interworking

18pp E 22806 F 22807 S 22808 12 CHF

**Y.1261 (12/02)** Service requirements and  
architecture for voice services over Multi-Protocol  
Label Switching

24pp E 12457 F 12458 S 12459 17 CHF

### Y.1261 (2002) Erratum 1 (02/04)

**Y.1281 (09/03)** Mobile IP over MPLS

40pp E 24699 F 24700 S 24701 22 CHF

**Y.1301/G.871 (10/00)** Framework for optical  
transport network Recommendations

16pp E 19928 F 19929 S 19930 12 CHF

**Y.1302/G.807 (07/01)** Requirements for automatic switched transport networks (ASTN)  
22pp E 20720 F 20721 S 20722 17 CHF

**Y.1303/G.7041 (12/03)** Generic framing procedure (GFP)  
58pp E 24981 29 CHF

**Y.1304/G.8080 (11/01)** Architecture for the automatic switched optical networks (ASON)  
48pp E 22221 F 22222 S 22223 22 CHF

**Y.1304/G.8080 Amendment 1 (03/02)**  
To be published...

**Y.1305/G.7042 (11/01)** Link capacity adjustment scheme (LCAS) for virtual concatenated signals  
24pp E 21947 F 21948 S 21949 17 CHF

**Y.1305/G.7042 (2001) Corrigendum 1 (06/02)**

**Y.1305/G.7042 (2001) Corrigendum 2 (03/03)**

**Y.1306/G.8010 (02/04)** Architecture of Ethernet Layer Networks  
42pp E 25562 22 CHF

**Y.1310 (03/04)** Transport of IP over ATM in public networks  
62pp E 25542 29 CHF

**Y.1310 (03/00)** Transport of IP over ATM in public networks  
70pp E 19480 F 19481 S 19482 29 CHF

**Y.1311 (03/02)** Network Based VPNs – Generic Architecture and Service Requirements  
28pp E 22351 F 22352 S 22353 17 CHF

**Y.1311.1 (07/01)** Network-based IP VPN over MPLS architecture  
46pp E 20817 F 20818 S 20819 29 CHF

**Y.1312 (09/03)** Layer 1 Virtual Private Network Generic requirements and architectures  
28pp E 25044 F 25045 S 25046 17 CHF

**Y.1321/X.85 (03/01)** IP over SDH using LAPS  
28pp E 20810 F 20811 S 20812 17 CHF

**Y.1322/G.707 (12/03)** Network node interface for the synchronous digital hierarchy (SDH)  
To be published...

**Y.1323/X.86 (02/01)** Ethernet over LAPS  
19pp E 21904 F 21905 S 21906 12 CHF

**Y.1323/X.86 (2001) Amendment 1 (04/02)** Using Ethernet flow control as rate limiting  
12pp E 22440 F 22441 S 22442 9 CHF

**Y.1324/X.87 (10/03)** Multiple services ring based on RPR  
To be published...

**Y.1331 (03/02)** Network Based VPNs – Generic Architecture and Service Requirements  
To be published...

**Y.1331/G.709 (03/03)** Interfaces for the Optical Transport Network (OTN)  
117pp E 25054 F 25055 S 25056 44 CHF

**Y.1331/G.709 (2003) Amendment 1 (12/03)**  
To be published...

**Y.1340/G.8040 (12/03)** GFP frame mapping into plesiochronous digital hierarchy (PDH)  
10pp E 24845 F 24846 S 24847 9 CHF

### *Interworking*

**Y.1401 (10/00)** General requirements for interworking with Internet protocol (IP)-based networks  
10pp E 19382 F 19383 S 19384 17 CHF

**Y.1402/X.371 (02/01)** General arrangements for interworking between Public Data Networks and the Internet  
19pp E 21749 F 21750 S 21751 12 CHF



## Global information infrastructure

### Global information infrastructure

**Y.1411 (02/03)** ATM-MPLS network interworking –  
Cell mode user plane interworking

28pp E 23678 F 23679 S 23680 17 CHF

**Y.1412 (11/03)** ATM-MPLS network interworking –  
Frame mode user plane interworking

26pp E 24819 F 24820 S 24821 17 CHF

**Y.1413 (03/04)** TDM-MPLS network interworking –  
User plane interworking

To be published...

### Overall network aspects and functions

#### Performance objectives

**Y.1501/I.351/Y.801 (10/00)** Relationships among  
ISDN, Internet protocol, and GII performance  
recommendations

24pp E 18937 F 18938 S 18939 17 CHF

**Y.1540 (12/02)** Internet protocol data communication  
service – IP packet transfer and availability  
performance parameters

36pp E 23410 F 23411 S 23412 17 CHF

### Internet protocol aspects

#### Quality of service and network performance

**Y.1540 (2002) Amendment 1 (08/03)** New  
Appendix VIII: Background on IP service  
availability

9pp E 24647 F 24648 S 24649 9 CHF

**Y.1541 (05/02)** Network performance objectives for  
IP-based services

34pp E 22763 F 22764 S 22765 17 CHF

**Y.1541 (2002) Amendment 1 (08/03)** Revised  
Appendix VI: Applicability of the Y.1221 transfer  
capabilities and IETF differentiated services to IP  
QoS classes

7pp E 24650 F 24651 S 24652 9 CHF

**Y.1541 (2002) Amendment 2 (02/04)** New  
Appendix XI – Concatenating QoS values

10pp E 25272 F 25273 S 25274 9 CHF

**Y.1541 Appendix X (11/02)** Speech quality  
calculations for Y.1541 hypothetical reference paths

10pp E 23111 F 23112 S 23113 9 CHF

**Y.1560 (09/03)** Parameters for TCP connection  
performance in the presence of middleboxes

18pp E 24892 F 24893 S 24894 12 CHF

#### Operation, administration and maintenance

**Y.1701/G.7710 (11/01)** Common equipment  
management function requirements

88pp E 22596 F 22597 S 22598 39 CHF

**Y.1703/G.7712 (03/03)** Architecture and  
specification of data communication network

76pp E 24574 F 24575 S 24576 34 CHF

**Y.1704/G.7713 (12/01)** Distributed call and  
connection management (DCM)

74pp E 22912 F 22913 S 22914 34 CHF

**Y.1704.1/G.7713.1 (03/03)** Distributed call and  
connection management (DCM) based on PNNI

50pp E 24323 F 24324 S 24325 29 CHF

**Y.1704.2/G.7713.2 (03/03)** Distributed Call and  
Connection Management: Signalling mechanism  
using GMPLS RSVP-TE

45pp E 24418 F 24419 S 24420 22 CHF

**Y.1704.3/G.7713.3 (03/03)** Distributed Call and  
Connection Management: Signalling mechanism  
using GMPLS CR-LDP

43pp E 24383 F 24384 S 24385 22 CHF

**Y.1705/G.7714 (11/01)** Generalized automatic  
discovery techniques

22pp E 21414 F 21415 S 21416 17 CHF

### *Operation, administration and maintenance*

**Y.1705.1/G.7714.1 (04/03)** Protocol for automatic discovery in SDH and OTN networks

30pp E 24421 F 24422 S 24423 17 CHF

**Y.1705.1 (04/03)** Protocol for automatic discovery in SDH and OTN networks

To be published...

### *Operation, administration and maintenance*

**Y.1706/G.7715 (06/02)** Architecture and Requirements for Routing in the Automatic Switched Optical Networks

36pp E 22748 F 22749 S 22750 17 CHF

### *Operation, administration and maintenance*

**Y.1706.1/G.7715.1 (02/04)** ASON routing architecture and requirements for link state protocols

25pp E 25228 17 CHF

### *Quality of service and network performance*

**Y.1710 (11/02)** Requirements for OAM functionality for MPLS networks

12pp E 23051 F 23052 S 23053 9 CHF

### *Operation, administration and maintenance*

**Y.1711 (02/04)** Operation & Maintenance mechanism for MPLS networks

36pp E 25490 17 CHF

**Y.1712 (01/04)** OAM functionality for ATM-MPLS interworking

28pp E 25462 17 CHF

**Y.1713 (03/04)** Misbranching detection for MPLS networks

To be published...

**Y.1720 (09/03)** Protection switching for MPLS networks

34pp E 24544 F 24545 S 24546 17 CHF

**Y.1720 (09/2003) Erratum 1 (04/04)**

*Applies only to English version*

**Y.1730 (01/04)** Requirements for OAM functions in Ethernet-based networks and Ethernet services

25pp E 25327 17 CHF

## **SERIES Z**

### **Languages and general software aspects for telecommunication systems**

### *Specification and Description Language (SDL)*

**Z.100 (08/02)** Specification and Description Language (SDL)

206pp E 23606 F 23607 S 23608 96 CHF

**Z.100 Annex B (10/03)** Backwards compatibility

To be published...

**Z.100 Annex C (10/02)** Compliance

To be published...

**Z.100 Annex F (11/00)** SDL formal definition: General

32pp E 21407 F 21409 S 21410 17 CHF

**Z.100 Annex F2 (11/00)** Well-formedness and Transformation rules

218pp E 21224 96 CHF

**Z.100 Annex F3 (11/00)** SDL formal definition: Dynamic Semantics

125pp E 21017 49 CHF

**Z.100 (2002) Corrigendum 1 (10/03)**

To be published...

**Z.100 Supplement 1 (05/97)** SDL+ methodology: Use of MSC and SDL (with ASN.1)

88pp E 12677 F 12678 S 12679 39 CHF

**Z.105 (07/03)** SDL combined with ASN.1 modules (SDL/ASN.1)

37pp E 24454 F 24455 S 24456 22 CHF

**Z.106 (08/02)** Common interchange format for SDL

74pp E 23374 F 23375 S 23376 34 CHF

**Z.107 (11/99)** SDL with embedded ASN.1

8pp E 16920 F 16921 S 16922 9 CHF

**Z.109 (11/99)** SDL combined with UML

40pp E 17740 F 17741 S 17742 22 CHF

### *Application of Formal Description Techniques*

**Z.110 (11/00)** Criteria for use of formal description techniques by ITU-T

12pp E 20915 F 20916 S 20917 9 CHF

### *Message Sequence Chart*

**Z.120 (11/99)** Message sequence chart (MSC)

136pp E 20087 F 20088 S 20089 55 CHF

**Z.120 Annex B (04/98)** Formal semantics of message sequence charts

84pp E 22267 34 CHF

**Z.120 Annex C (10/96) Withdrawn (06/02)**  
Static semantics of message sequence charts

*Z.120/Annex C was withdrawn on 2002-06-12 since its content is covered by Z.120/Annex B (1998)*

**Z.120 (1999) Corrigendum 1 (12/01)**

**Z.121 (02/03)** Specification and Description Language (SDL) data binding to Message Sequence Charts (MSC)

18pp E 23748 F 23749 S 23750 12 CHF

### *Extended Object Definition Language (eODL)*

**Z.130 (07/03)** Extended Object Definition Language (eODL): Techniques for distributed software component development – Conceptual foundation, notations and technology mappings

112pp E 25541 44 CHF

### *Tree and Tabular Combined Notation (TTCN)*

**Z.140 (04/03)** Testing and Test Control Notation version 3 (TTCN-3): Core language

200pp E 24248 73 CHF

### *Message Sequence Chart*

**Z.141 (02/03)** Testing and Test Control Notation version 3 (TTCN-3): Tabular presentation format

36pp E 23794 17 CHF

### *Tree and Tabular Combined Notation (TTCN)*

**Z.142 (02/03)** Testing and Test Control Notation version 3 (TTCN-3): Graphical presentation format

146pp E 23857 55 CHF

### *User Requirements Notation (URN)*

**Z.150 (02/03)** User Requirements Notation (URN) – Language requirements and framework

36pp E 24095 F 24096 S 24097 17 CHF

### **Programming languages**

#### *CHILL: The ITU-T high level language*

**Z.200 (11/99)** CHILL – The ITU-T Programming Language

232pp E 19317 F 19318 S 19319 96 CHF

### **Man-machine language**

#### *General principles*

**Z.301 (11/88)** Introduction to the CCITT man-machine language

*Individually through the Electronic Bookshop:* 20 CHF

**Z.302 (11/88)** The meta-language for describing mmL syntax and dialogue procedures

*Individually through the Electronic Bookshop:* 20 CHF

#### *Basic syntax and dialogue procedures*

**Z.311 (11/88)** Introduction to syntax and dialogue procedures

*Individually through the Electronic Bookshop:* 20 CHF

**Z.312 (11/88)** Basic format layout  
*Individually through the Electronic Bookshop:* 20 CHF

**Z.314 (11/88)** The character set and basic elements  
*Individually through the Electronic Bookshop:* 20 CHF

**Z.315 (11/88)** Input (command) language syntax specification  
*Individually through the Electronic Bookshop:* 20 CHF

**Z.316 (11/88)** Output language syntax specification  
*Individually through the Electronic Bookshop:* 20 CHF

**Z.317 (11/88)** Man-machine dialogue procedures  
*Individually through the Electronic Bookshop:* 20 CHF

### *Extended mmL for visual display terminals*

**Z.321 (11/88)** Introduction to the extended mmL for visual display terminals  
*Individually through the Electronic Bookshop:* 20 CHF

**Z.322 (11/88)** Capabilities of visual display terminals  
*Individually through the Electronic Bookshop:* 20 CHF

**Z.323 (11/88)** Man-machine interaction  
*This Recommendation is also included but not published in E series under alias number E.333.*  
*Individually through the Electronic Bookshop:* 22 CHF

### *Specification of the man-machine interface*

**Z.331 (11/88)** Introduction to the specification of the man-machine interface  
*Individually through the Electronic Bookshop:* 20 CHF

**Z.332 (11/88)** Methodology for the specification of the man-machine interface – General working procedure  
*Individually through the Electronic Bookshop:* 20 CHF

**Z.333 (11/88)** Methodology for the specification of the man-machine interface – Tools and methods  
*Individually through the Electronic Bookshop:* 20 CHF

**Z.334 (11/88)** Subscriber administration  
*Individually through the Electronic Bookshop:* 20 CHF

**Z.335 (11/88)** Routing administration  
*Individually through the Electronic Bookshop:* 20 CHF

**Z.336 (11/88)** Traffic measurement administration  
*Individually through the Electronic Bookshop:* 22 CHF

**Z.337 (11/88)** Network management administration  
*Individually through the Electronic Bookshop:* 20 CHF

**Z.341 (11/88)** Glossary of terms  
*Individually through the Electronic Bookshop:* 22 CHF

**Z.351 (03/93)** Data oriented human-machine interface specification technique – Introduction  
6pp E 3999 F 3998 S 4000 8 CHF

**Z.352 (03/93)** Data oriented human-machine interface specification technique – Scope, approach and reference model  
22pp E 4272 F 4271 S 4273 15 CHF

**Z.360 (05/97)** Graphic GDMO: A graphic notation for the Guidelines for the Definition of Managed Objects  
28pp E 12254 F 12255 S 12256 17 CHF

**Z.361 (02/99)** Design guidelines for Human-Computer Interfaces (HCI) for the management of telecommunications networks  
24pp E 15745 F 15746 S 15747 17 CHF

### **Quality of telecommunication software**

**Z.400 (03/93)** Structure and format of quality manuals for telecommunications software  
6pp E 4047 F 4046 S 4048 8 CHF

## **Quality**

### **Quality**

#### *Quality aspects of protocol-related Recommendations*

**Z.450 (10/03)** Quality aspects of protocol-related Recommendations  
19pp E 24917 F 24918 S 24919 12 CHF

### **Methods for validation and testing**

**Z.500 (05/97)** Framework on formal methods in conformance testing  
48pp E 12622 F 12623 S 12624 22 CHF

**Z.600 (11/00)** Distributed processing environment architecture  
48pp E 21175 F 21176 S 21177 22 CHF







# Mapping of ISO/IEC Standards to ITU-T Recommendations and ITU-T Recommendations to ISO/IEC Standards

The following table gives the ITU-T Recommendation numbers corresponding to the ISO/IEC International Standards ordered ISO numbers.

White lines correspond to identical ITU-T/ISO/IEC texts. Shaded lines correspond to texts that are not identical, but that have same technical content.

## ISO/IEC Standards to ITU-T Recommendations

ISO 646	T.50	ISO/IEC 8823-2	X.246	ISO/IEC 9594-9	X.525
ISO/IEC 7498-1	X.200	ISO/IEC 8824	X.208	ISO/IEC 9594-10	X.530
ISO/IEC 7498-2	X.800	ISO/IEC 8824-1	X.680	ISO/IEC 9595	X.710
ISO/IEC 7498-3	X.650	ISO/IEC 8824-2	X.681	ISO/IEC 9596-1	X.711
ISO/IEC 7498-4	X.700	ISO/IEC 8824-3	X.682	ISO/IEC 9596-2	X.712
ISO/IEC 8072	X.214	ISO/IEC 8824-4	X.683	ISO/IEC 9646-1	X.290
ISO/IEC 8073	X.224	ISO/IEC 8825	X.209	ISO/IEC 9646-2	X.291
ISO/IEC 8326	X.215	ISO/IEC 8825-1	X.690	ISO/IEC 9646-3	X.292
ISO/IEC 8327-1	X.225	ISO/IEC 8825-2	X.691	ISO/IEC 9646-4	X.293
ISO/IEC 8327-2	X.245	ISO/IEC 8878	X.223	ISO/IEC 9646-5	X.294
ISO/IEC 8348	X.213	ISO/IEC 8886	X.212	ISO/IEC 9646-6	X.295
ISO/IEC 8473-1	X.233	ISO/IEC 9066-1	X.218	ISO/IEC 9646-7	X.296
ISO/IEC 8473-3	X.622	ISO/IEC 9066-2	X.228	ISO/IEC 9804	X.851
ISO/IEC 8473-4	X.623	ISO/IEC 9066-3	X.248	ISO/IEC 9805-1	X.852
ISO/IEC 8473-5	X.625	ISO/IEC 9072-1	X.219	ISO/IEC 9805-2	X.853
ISO/IEC 8602	X.234	ISO/IEC 9072-2	X.229	ISO/IEC 9834-1	X.660
ISO/IEC 8613-1	T.411	ISO/IEC 9072-3	X.249	ISO/IEC 9834-3	X.662
ISO/IEC 8613-2	T.412	ISO/IEC 9496	Z.200	ISO/IEC 9834-6	X.665
ISO/IEC 8613-3	T.413	ISO/IEC 9545	X.207	ISO/IEC 9834-7	X.666
ISO/IEC 8613-4	T.414	ISO/IEC 9548-1	X.235	ISO/IEC 10021-1	F.400/X.400
ISO/IEC 8613-5	T.415	ISO/IEC 9548-2	X.255	ISO/IEC 10021-2	X.402
ISO/IEC 8613-6	T.416	ISO/IEC 9574	X.612	ISO/IEC 10021-4	X.411
ISO/IEC 8613-7	T.417	ISO/IEC 9576-1	X.236	ISO/IEC 10021-5	X.413
ISO/IEC 8613-8	T.418	ISO/IEC 9576-2	X.256	ISO/IEC 10021-6	X.419
ISO/IEC 8613-9	T.419	ISO/IEC 9577	X.263	ISO/IEC 10021-7	X.420
ISO/IEC 8613-11	T.421	ISO/IEC 9594-1	X.500	ISO/IEC 10021-8	F.435
ISO/IEC 8613-12	T.422	ISO/IEC 9594-2	X.501	ISO/IEC 10021-9	X.435
ISO/IEC 8613-14	T.424	ISO/IEC 9594-3	X.511	ISO/IEC 10021-10	X.412
ISO/IEC 8649	X.217	ISO/IEC 9594-4	X.518	ISO/IEC 10021-11	X.404
ISO/IEC 8650-1	X.227	ISO/IEC 9594-5	X.519	ISO/IEC 10022	X.211
ISO/IEC 8650-2	X.247	ISO/IEC 9594-6	X.520	ISO/IEC 10026-1	X.860
ISO/IEC 8822	X.216	ISO/IEC 9594-7	X.521	ISO/IEC 10026-2	X.861
ISO/IEC 8823-1	X.226	ISO/IEC 9594-8	X.509	ISO/IEC 10026-3	X.862

ISO/IEC 10026-4	X.863
ISO/IEC 10035-1	X.237
ISO/IEC 10035-2	X.257
ISO/IEC 10040	X.701
ISO/IEC 10164-1	X.730
ISO/IEC 10164-2	X.731
ISO/IEC 10164-3	X.732
ISO/IEC 10164-4	X.733
ISO/IEC 10164-5	X.734
ISO/IEC 10164-6	X.735
ISO/IEC 10164-7	X.736
ISO/IEC 10164-8	X.740
ISO/IEC 10164-9	X.741
ISO/IEC 10164-10	X.742
ISO/IEC 10164-11	X.739
ISO/IEC 10164-12	X.745
ISO/IEC 10164-13	X.738
ISO/IEC 10164-14	X.737
ISO/IEC 10164-15	X.746
ISO/IEC 10164-16	X.750
ISO/IEC 10164-17	X.751
ISO/IEC 10164-18	X.744
ISO/IEC 10164-19	X.749
ISO/IEC 10164-20	X.743
ISO/IEC 10164-21	X.753
ISO/IEC 10164-22	X.748
ISO/IEC 10165-1	X.720
ISO/IEC 10165-2	X.721
ISO/IEC 10165-4	X.722
ISO/IEC 10165-5	X.723
ISO/IEC 10165-6	X.724
ISO/IEC 10165-7	X.725
ISO/IEC 10165-8	X.287
ISO/IEC 10165-9	X.727
ISO/IEC 10181-1	X.810
ISO/IEC 10181-2	X.811
ISO/IEC 10181-3	X.812
ISO/IEC 10181-4	X.813
ISO/IEC 10181-5	X.814
ISO/IEC 10181-6	X.815
ISO/IEC 10181-7	X.816
ISO/IEC 10588	X.613

ISO/IEC ISP 10610-1	T.502
ISO/IEC 10611-3	X.482
ISO/IEC 10611-4	X.483
ISO/IEC 10611-5	X.484
ISO/IEC 10731	X.210
ISO/IEC 10732	X.614
ISO/IEC 10733	X.283
ISO/IEC 10736	X.274
ISO/IEC 10737	X.284
ISO/IEC 10742	X.282
ISO/IEC 10745	X.803
ISO/IEC 10746-1	X.901
ISO/IEC 10746-2	X.902
ISO/IEC 10746-3	X.903
ISO/IEC 10746-4	X.904
ISO/IEC 10918-1	T.81
ISO/IEC 10918-2	T.83
ISO/IEC 10918-3	T.84
ISO/IEC 10918-4	T.86
ISO/IEC ISP 11181-1	T.505
ISO/IEC ISP 11182-1	T.506
ISO/IEC ISP 11188-1	X.637
ISO/IEC ISP 11188-2	X.639
ISO/IEC ISP 11188-3	X.638
ISO/IEC 11544	T.82
ISO/IEC 11570	X.264
ISO/IEC 11575	X.222
ISO/IEC 11577	X.273
ISO/IEC 11586-1	X.830
ISO/IEC 11586-2	X.831
ISO/IEC 11586-3	X.832
ISO/IEC 11586-4	X.833
ISO/IEC 11586-5	X.834
ISO/IEC 11586-6	X.835
ISO/IEC 11587	X.702
ISO/IEC 11588-1	X.460
ISO/IEC 11588-3	X.462
ISO/IEC 11588-8	X.467
ISO/IEC 12062-2	X.481
ISO/IEC 12062-6	X.487
ISO/IEC 12063-2	X.486
ISO/IEC 12063-5	X.488

ISO/IEC 13235-1	X.950
ISO/IEC 13235-3	X.952
ISO/IEC 13236	X.641
ISO/IEC 13243	X.642
ISO/IEC 13244	X.703
ISO/IEC 13248-1	X.583
ISO/IEC 13248-2	X.584
ISO/IEC 13248-3	X.585
ISO/IEC 13248-4	X.586
ISO/IEC 13252	X.605
ISO/IEC 13522-1	T.171
ISO/IEC TR 13594	X.802
ISO/IEC 13642	X.281
ISO/IEC 13712-1	X.880
ISO/IEC 13712-2	X.881
ISO/IEC 13712-3	X.882
ISO/IEC 13818-1	H.222.0
ISO/IEC 13818-2	H.262
ISO/IEC 14492	T.88
ISO/IEC 14495-1	T.87
ISO/IEC 14516	X.842
ISO/IEC 14608-1	X.581
ISO/IEC 14608-2	X.582
ISO/IEC 14699	X.634
ISO/IEC 14700	X.633
ISO/IEC 14750	X.920
ISO/IEC 14752	X.931
ISO/IEC 14753	X.930
ISO/IEC 14765	X.260
ISO/IEC 14769	X.960
ISO/IEC 14771	X.910
ISO/IEC TR 15294	V.43
ISO/IEC 15816	X.841
ISO/IEC 15945	X.843
ISO/IEC 15953	X.217 bis
ISO/IEC 15954	X.227 bis
ISO/IEC 15955	X.237 bis
ISO/IEC 16485	T.44

## ITU-T Recommendations to ISO/IEC Standards

F.400/X.400	ISO/IEC 10021-1	X.217 bis	ISO/IEC 15953	X.296	ISO/IEC 9646-7
F.435	ISO/IEC 10021-8	X.218	ISO/IEC 9066-1	X.402	ISO/IEC 10021-2
H.222.0	ISO/IEC 13818-1	X.219	ISO/IEC 9072-1	X.404	ISO/IEC 10021-11
H.262	ISO/IEC 13818-2	X.222	ISO/IEC 11575	X.411	ISO/IEC 10021-4
T.44	ISO/IEC 16485	X.223	ISO/IEC 8878	X.412	ISO/IEC 10021-10
T.50	ISO 646	X.224	ISO/IEC 8073	X.413	ISO/IEC 10021-5
T.81	ISO/IEC 10918-1	X.225	ISO/IEC 8327-1	X.419	ISO/IEC 10021-6
T.82	ISO/IEC 11544	X.226	ISO/IEC 8823-1	X.420	ISO/IEC 10021-7
T.83	ISO/IEC 10918-2	X.227	ISO/IEC 8650-1	X.435	ISO/IEC 10021-9
T.84	ISO/IEC 10918-3	X.227 bis	ISO/IEC 15954	X.460	ISO/IEC 11588-1
T.86	ISO/IEC 10918-4	X.228	ISO/IEC 9066-2	X.462	ISO/IEC 11588-3
T.87	ISO/IEC 14495-1	X.229	ISO/IEC 9072-2	X.467	ISO/IEC 11588-8
T.88	ISO/IEC 14492	X.233	ISO/IEC 8473-1	X.481	ISO/IEC 12062-2
T.171	ISO/IEC 13522-1	X.234	ISO/IEC 8602	X.482	ISO/IEC 10611-3
T.411	ISO/IEC 8613-1	X.235	ISO/IEC 9548-1	X.483	ISO/IEC 10611-4
T.412	ISO/IEC 8613-2	X.236	ISO/IEC 9576-1	X.484	ISO/IEC 10611-5
T.413	ISO/IEC 8613-3	X.237	ISO/IEC 10035-1	X.486	ISO/IEC 12063-2
T.414	ISO/IEC 8613-4	X.237 bis	ISO/IEC 15955	X.487	ISO/IEC 12062-6
T.415	ISO/IEC 8613-5	X.245	ISO/IEC 8327-2	X.488	ISO/IEC 12063-5
T.416	ISO/IEC 8613-6	X.246	ISO/IEC 8823-2	X.500	ISO/IEC 9594-1
T.417	ISO/IEC 8613-7	X.247	ISO/IEC 8650-2	X.501	ISO/IEC 9594-2
T.418	ISO/IEC 8613-8	X.248	ISO/IEC 9066-3	X.509	ISO/IEC 9594-8
T.419	ISO/IEC 8613-9	X.249	ISO/IEC 9072-3	X.511	ISO/IEC 9594-3
T.421	ISO/IEC 8613-11	X.255	ISO/IEC 9548-2	X.518	ISO/IEC 9594-4
T.422	ISO/IEC 8613-12	X.256	ISO/IEC 9576-2	X.519	ISO/IEC 9594-5
T.424	ISO/IEC 8613-14	X.257	ISO/IEC 10035-2	X.520	ISO/IEC 9594-6
T.502	ISO/IEC ISP 10610-1	X.260	ISO/IEC 14765	X.521	ISO/IEC 9594-7
T.505	ISO/IEC ISP 11181-1	X.263	ISO/IEC 9577	X.525	ISO/IEC 9594-9
T.506	ISO/IEC ISP 11182-1	X.264	ISO/IEC 11570	X.530	ISO/IEC 9594-10
V.43	ISO/IEC TR 15294	X.273	ISO/IEC 11577	X.581	ISO/IEC 14608-1
X.200	ISO/IEC 7498-1	X.274	ISO/IEC 10736	X.582	ISO/IEC 14608-2
X.207	ISO/IEC 9545	X.281	ISO/IEC 13642	X.583	ISO/IEC 13248-1
X.208	ISO/IEC 8824	X.282	ISO/IEC 10742	X.584	ISO/IEC 13248-2
X.209	ISO/IEC 8825	X.283	ISO/IEC 10733	X.585	ISO/IEC 13248-3
X.210	ISO/IEC 10731	X.284	ISO/IEC 10737	X.586	ISO/IEC 13248-4
X.211	ISO/IEC 10022	X.287	ISO/IEC 10165-8	X.605	ISO/IEC 13252
X.212	ISO/IEC 8886	X.290	ISO/IEC 9646-1	X.612	ISO/IEC 9574
X.213	ISO/IEC 8348	X.291	ISO/IEC 9646-2	X.613	ISO/IEC 10588
X.214	ISO/IEC 8072	X.292	ISO/IEC 9646-3	X.614	ISO/IEC 10732
X.215	ISO/IEC 8326	X.293	ISO/IEC 9646-4	X.622	ISO/IEC 8473-3
X.216	ISO/IEC 8822	X.294	ISO/IEC 9646-5	X.623	ISO/IEC 8473-4
X.217	ISO/IEC 8649	X.295	ISO/IEC 9646-6	X.625	ISO/IEC 8473-5

X.633	ISO/IEC 14700
X.634	ISO/IEC 14699
X.637	ISO/IEC ISP 11188-1
X.638	ISO/IEC ISP 11188-3
X.639	ISO/IEC ISP 11188-2
X.641	ISO/IEC 13236
X.642	ISO/IEC 13243
X.650	ISO/IEC 7498-3
X.660	ISO/IEC 9834-1
X.662	ISO/IEC 9834-3
X.665	ISO/IEC 9834-6
X.666	ISO/IEC 9834-7
X.680	ISO/IEC 8824-1
X.681	ISO/IEC 8824-2
X.682	ISO/IEC 8824-3
X.683	ISO/IEC 8824-4
X.690	ISO/IEC 8825-1
X.691	ISO/IEC 8825-2
X.700	ISO/IEC 7498-4
X.701	ISO/IEC 10040
X.702	ISO/IEC 11587
X.703	ISO/IEC 13244
X.710	ISO/IEC 9595
X.711	ISO/IEC 9596-1
X.712	ISO/IEC 9596-2
X.720	ISO/IEC 10165-1
X.721	ISO/IEC 10165-2
X.722	ISO/IEC 10165-4
X.723	ISO/IEC 10165-5
X.724	ISO/IEC 10165-6
X.725	ISO/IEC 10165-7
X.727	ISO/IEC 10165-9

X.730	ISO/IEC 10164-1
X.731	ISO/IEC 10164-2
X.732	ISO/IEC 10164-3
X.733	ISO/IEC 10164-4
X.734	ISO/IEC 10164-5
X.735	ISO/IEC 10164-6
X.736	ISO/IEC 10164-7
X.737	ISO/IEC 10164-14
X.738	ISO/IEC 10164-13
X.739	ISO/IEC 10164-11
X.740	ISO/IEC 10164-8
X.741	ISO/IEC 10164-9
X.742	ISO/IEC 10164-10
X.743	ISO/IEC 10164-20
X.744	ISO/IEC 10164-18
X.745	ISO/IEC 10164-12
X.746	ISO/IEC 10164-15
X.748	ISO/IEC 10164-22
X.749	ISO/IEC 10164-19
X.750	ISO/IEC 10164-16
X.751	ISO/IEC 10164-17
X.753	ISO/IEC 10164-21
X.800	ISO/IEC 7498-2
X.802	ISO/IEC TR 13594
X.803	ISO/IEC 10745
X.810	ISO/IEC 10181-1
X.811	ISO/IEC 10181-2
X.812	ISO/IEC 10181-3
X.813	ISO/IEC 10181-4
X.814	ISO/IEC 10181-5
X.815	ISO/IEC 10181-6
X.816	ISO/IEC 10181-7

X.830	ISO/IEC 11586-1
X.831	ISO/IEC 11586-2
X.832	ISO/IEC 11586-3
X.833	ISO/IEC 11586-4
X.834	ISO/IEC 11586-5
X.835	ISO/IEC 11586-6
X.841	ISO/IEC 15816
X.842	ISO/IEC 14516
X.843	ISO/IEC 15945
X.851	ISO/IEC 9804
X.852	ISO/IEC 9805-1
X.853	ISO/IEC 9805-2
X.860	ISO/IEC 10026-1
X.861	ISO/IEC 10026-2
X.862	ISO/IEC 10026-3
X.863	ISO/IEC 10026-4
X.880	ISO/IEC 13712-1
X.881	ISO/IEC 13712-2
X.882	ISO/IEC 13712-3
X.901	ISO/IEC 10746-1
X.902	ISO/IEC 10746-2
X.903	ISO/IEC 10746-3
X.904	ISO/IEC 10746-4
X.910	ISO/IEC 14771
X.920	ISO/IEC 14750
X.930	ISO/IEC 14753
X.931	ISO/IEC 14752
X.950	ISO/IEC 13235-1
X.952	ISO/IEC 13235-3
X.960	ISO/IEC 14769
Z.200	ISO/IEC 9496

# TRANSFERRED ITU-R CMTT RECOMMENDATIONS TO ITU-T J-SERIES

(by CMTT number order)

These Recommendations were originally developed by the ITU Radiocommunication Sector and subsequently transferred to the ITU Standardization Sector.

ITU-R Number	ITU-T Number	Approval date	Title
CMTT 473	J.63	01/06/90	Insertion of test signals in the field-blanking interval of monochrome and colour television signals
CMTT 474-1	J.24	26/02/82	Modulation of signals carried by sound-programme circuits by interfering signals from power supply sources
CMTT 502	J.11	25/11/88	Hypothetical reference circuits for sound-programme transmissions
CMTT 503	J.23	25/11/88	Performance characteristics of 7 kHz type (narrow bandwidth) sound-programme circuits
CMTT 505	J.21	22/08/94	Performance characteristics of 15 kHz-type sound-programme circuits – Circuits for high quality monophonic and stereophonic transmissions
CMTT 567-3	J.61	01/06/90	Transmission performance of television circuits designed for use in international connections
CMTT 568	J.62	26/02/78	Single value of the signal-to-noise ratio for all television systems
CMTT 569	J.64	26/02/86	Definitions of parameters for simplified automatic measurement of television insertion test signals
CMTT 570	J.65	26/02/78	Standard test signal for conventional loading of a television channel
CMTT 571	J.19	25/11/88	A conventional test signal simulating sound-programme signals for measuring interference in other channels
CMTT 572	J.66	26/02/78	Transmission of one sound programme associated with analogue television signal by means of time division multiplex in the line synchronizing pulse
CMTT 603	J.68	26/02/82	Hypothetical reference chain for television transmissions over very long distances
CMTT 604-2	J.85	01/06/90	Digital television transmission over long distances – General principles
CMTT 605-1	J.25	23/05/86	Estimation of transmission performance of sound-programme circuits shorter or longer than the hypothetical reference circuit
CMTT 606-1	J.53	01/06/90	Sampling frequency to be used for the digital transmission of high-quality sound-programme signals
CMTT 645-1	J.26	01/06/90	Test signals to be used on international sound-programme connections

<b>ITU-R Number</b>	<b>ITU-T Number</b>	<b>Approval date</b>	<b>Title</b>
CMTT 658-1	J.86	01/06/90	Mixed analogue-and-digital transmission of analogue composite television signals over long distances
CMTT 659	J.51	22/08/94	General principles and user requirements for the digital transmission of high quality sound programmes
CMTT 660	J.54	23/05/86	Transmission of analogue high-quality sound-programme signals on mixed analogue-and-digital circuits using 384 kbit/s channels
CMTT 661-1	J.27	01/06/90	Signals for the alignment of international sound-programme connections
CMTT 717	J.100	01/06/90	Tolerances for transmission time differences between the vision and sound components of a television signal
CMTT 718	J.55	01/06/90	Digital transmission of high-quality sound-programme signals on distribution circuits using 480 kbit/s (496 kbit/s) per audio channel
CMTT 719	J.56	01/06/90	Transmission of high-quality sound-programme analogue signals over mixed analogue/digital circuits at 320 kbit/s
CMTT 720	J.101	01/06/90	Measurement methods and test procedures for teletext signals
CMTT 721	J.80	08/09/93	Transmission of component-coded digital television signals for contribution-quality applications at bit rates near 140 Mbit/s
CMTT 723	J.81	08/09/93	Transmission of component-coded digital television signals for contribution-quality applications at the third hierarchical level of ITU-T Recommendation G.702
CMTT 724	J.57	01/06/90	Transmission of digital studio quality sound signals over H1 channels
CMTT 772	J.67	22/08/94	Test signals and measurement techniques for transmission circuits carrying MAC/packet signals or HD-MAC signals



# ITU-T HANDBOOKS

## Operation

### ***Instructions for the International Telephone Service (1993)***

These instructions correspond to Recommendation ITU-T E.141

Article: E 3382 F 3381 S 3383  
A 5961 C 7387 R 5130 23 CHF

## Network Planning

### ***Optical Fibre System Planning Guide (1989)***

Article: E 1277 F 1278 S 1279 140 CHF

### ***Handbook on Transmission Planning (1993)***

Article: E 3214 F 3213 S 3215 28 CHF

## Quality of Service

### ***Handbook on Quality of Service and Network Performance (1993)***

Article: E 2977 F 2976 S 2978 37 CHF

## Implementation Guidelines

### ***Guidelines for Preparing and Conducting Field Trials of Digital Switching Equipments (1987)***

Article: E 1116 F 1117 S 1118 20 CHF

### ***ISDN Field Trial Guidelines (1991)***

Article: E 2067 F 2066 S 2068 38 CHF

### ***Guidelines for Implementing a Signalling System No. 7 Network (1991)***

Article: E 1910 F 1909 S 1911 37 CHF

### ***Introduction of New Technology in Local Network (1993)***

Article: E 3343 58 CHF

## Outside Plant

### ***Protection of telecommunication buildings from fire (2002)***

Article: E 19255 F 19256 S 19257 28 CHF  
R 23320

### ***Marinized Terrestrial Cables (2002)***

Article: E 20502 F 20503 S 20504 34 CHF  
R 22956

### ***Outside Plant Technologies for Public Networks (1992)***

Article: E 2075 F 2074 S 2076 122 CHF

### ***Preservation of Wooden Poles Carrying Overhead Telecommunication Lines (1974)***

Article: E 493 F 494 S 495 23 CHF

### ***Jointing of Plastic-Sheathed Cables (1978)***

Article: E 484 F 486 S 487 27 CHF

### ***Jointing of Telecommunication Cable Conductors (1982)***

Article: E 489 F 490 S 491 47 CHF

### ***Optical Fibres for Telecommunications (1984)***

Article: E 1041 F 1042 S 1043  
A 4721 70 CHF

### ***Construction, Installation, Jointing and Protection of Optical Fibre Cables (1994)***

Article: E 3775 F 3774 S 3776  
R 9590 A 5962 53 CHF

### ***Application of Computers and Microprocessors to the Construction, Installation and Protection of Telecommunication Cables (1999)***

Article: E 14517 F 14695 S 14696  
A 19211 20 CHF

## Protection against Electromagnetic Effects

### *Earthing and Bonding (2003)*

Article: E 24087 F 24088 S 24089 34 CHF

### *Earthing of Telecommunication Installations (1976)*

Article: E 497 F 498 S 499 41 CHF

### *Guide to the use of ITU-T publications produced by Study Group 5 aimed at achieving electromagnetic compatibility and safety (2002)*

Article: E 20954 F 20955 S 20956 17 CHF

### *The Protection of Telecommunication Lines and Equipment Against Lightning Discharges – Chapters 1 to 5 (1974)*

Article: E 689 F 690 S 691 85 CHF

### *Chapters 6, 7 and 8 (1978)*

Article: E 693 F 694 S 695 42 CHF

### *Chapters 9 and 10 (1994)*

Article: E 5479 F 5478 S 5480 62 CHF

## Directives

### *Directives Concerning the Protection of Telecommunication Lines against Harmful Effects from Electric Power and Electrified Railway Lines.*

**Volume I:** Design, construction and operational principles of telecommunication, power and electrified railway facilities (1989)

Article: E 1773 F 1764 S 1782 36 CHF

**Volume II:** Calculating induced voltages and currents in practical cases (1999)

Article: E 15034 F 15065 S 15068 160 CHF

**Volume III:** Capacitive, inductive and conductive coupling: physical theory and calculation methods (1989)

Article: E 1775 F 1766 S 1784 56 CHF

**Volume IV:** Inducing currents and voltages in electrified railway systems (1989)

Article: E 1776 F 1767 S 1785 62 CHF

**Volume V:** Inducing currents and voltages in power transmission and distribution systems (1999)

Article: E 15071 F 15072 S 15073 24 CHF

**Volume VI:** Danger and disturbance (1989)

Article: E 1778 F 1769 S 1787 21 CHF

**Volume VII:** Protective measures and safety precautions. (1989)

Article: E 1779 F 1770 S 1788 21 CHF

**Volume VIII:** Protective devices (1989)

Article: E 1780 F 1771 S 1789 9 CHF

**Volume IX:** Testing methods and measuring apparatus (1989)

Article: E 1781 F 1772 S 1790 84 CHF

## Measurement Methods

### *Handbook on interference measuring techniques (2002)*

Article: E 20506 F 20505 S 20507 38 CHF

### *Handbook on Telephonometry (1993)*

Article: E 3771 F 3770 S 3772 86 CHF

### *Additions to the Handbook on Telephonometry (1999)*

Article: E 14626 F 14627 S 14628 12 CHF

### *Addition to section 2.3 of the Handbook on Telephonometry (2000)*

*Forthcoming*

### *Addition to section 3 of the Handbook on Telephonometry (2000)*

Article: E 20261 F 20262 S 20263 12 CHF

### *Compendium of Cable Measurement Methods (1984)*

Article: E 458 F 471 S 474 40 CHF

## Formal Languages

### *Introduction to CHILL (1993)*

*Only available in English*

Article: E 3739 23 CHF

### *CHILL User Manual (1986)*

*Only available in English*

Article: E 1055 31 CHF

### *CHILL Formal Definition – Volume I, Parts 1, 2, 3 (1982)*

*Only available in English*

Article: E 1052 31 CHF

### *CHILL Formal Definition – Volume II, Part 4 (1982)*

*Only available in English*

Article: E 1053 43 CHF

# ITU-T SOFTWARE

The following is a list of the different software, test sequences and data published by ITU-T, and intended to test different communication equipment. Each software forms generally an integral part of a Recommendation and is published as an enclosure to it. Details about price and article number can be found in the Recommendation list. Some of these are not included in *ITU-T Recommendations on DVD-ROM*. For more information, please contact ITU Sales Services at [sales@itu.int](mailto:sales@itu.int)

<b>Series</b>	<b>Subject</b>
<b>G.191 (11/00)</b>	This Recommendation includes 1 CD-ROM containing the software tools library (STL-2000) ). The STL-2000 Manual is freely available from this Website for information purposes
<b>G.722 Appendix II (11/88)</b>	This document corresponds to ITU-T Rec. G.722 Appendix II which was published in the Blue Book (1988). It includes one diskette containing the digital test sequences for the verification of the G.722 SB-ADPCM codec
<b>G.722.1 (09/99)</b>	This Recommendation includes an electronic attachment containing the reference code (release 1.2) and the test vectors for ITU-T G.722.1 algorithm implementation verification. This release includes the corrections indicated in corrigendum 1 (11/2000)
<b>G.722.1 Annex B (11/00)</b>	This annex includes an electronic attachment containing the reference code and the test vectors for ITU-T G.722.1/Annex B floating-point algorithm implementation verification
<b>G.722.1 Annex C (03/04)</b>	
<b>G.722.1 Annex D (07/03)</b>	
<b>G.723.1 Annex A (11/96)</b>	This Annex includes 3 diskettes which are common to Recommendation main body and to this annex and which contain test vectors and C reference code for implementation verification of the G.723.1 fixed point dual rate speech coder for multimedia communications
<b>G.723.1 Annex B (11/96)</b>	This Annex includes one CD-ROM containing the reference code and the test vectors for implementation verification of the G.723.1 floating point speech coder. The CD-ROM may be replaced on demand by 14 diskettes
<b>G.723.1 Annex C (11/96)</b>	This Annex includes one diskette containing the reference code and the test vectors for implementation verification of the scalable channel coding scheme
<b>G.726 Appendix II test vectors (03/91)</b>	This document corresponds to G.726 Appendix II. It includes 2 diskettes containing respectively the A-Law and $\mu$ -Law digital test sequences for the verification of the G.726 ADPCM codec implementations. The document reproduces the user guide published in the CCITT collective letter No. 11/XV (1991)

**Series****Subject****G.727 Appendix I****test vectors (03/91)**

This document corresponds to G.727 Appendix I. It includes 6 diskettes containing digital test sequences for the verification of the G.727 embedded ADPCM codec implementations. The document reproduces the user guide published in the CCITT collective letter No. 12/XV (1991)

**G.728 Annex H (05/99)**

This Annex includes 1 CD-ROM containing the test data for verification of G.728 Annex H low bit rate LD-CELP implementations

**G.728 Annex J (09/99)**

This Annex includes 1 CD-ROM containing the test vectors for verification of G.728 Annex J variable bit-rate LD-CELP implementations

**G.728 Appendix I****Software (07/95)**

This document corresponds to G.728 Appendix I. It includes 4 diskettes containing programs and test sequences for verification of the floating point and fixed point implementations of the G.728 LD-CELP algorithm. The document reproduces the user guide published in the CCITT collective letter No. 17/XV (1992)

**G.729 (03/96)**

This Recommendation includes 3 diskettes containing source code and test sequences for implementation verification of the algorithm of the G.729 8 kbit/s CS-ACELP speech coder

**G.729 Annex A (11/96)**

This Annex includes 3 diskettes containing source code and test sequences for implementation verification of the algorithm of the G.729 reduced complexity 8 kbit/s CS-ACELP speech coder

**G.729 Annex B (02/00)**

This Annex includes 1 electronic attachment containing source code and test sequences for implementation verification of the algorithm of the G.729 Silence compression scheme version 1.4, which reflects modifications given in Corrigendum 2 (02/2000)

**G.729 Annex B (1996)****Corrigendum 2 (02/00)**

This Corrigendum concerns only the software; the resulting version 1.4 is included in the published ITU-T Recommendation G.729 Annex B (10/1996)

**G.729 Annex C (09/98)**

This Annex includes 1 diskette containing version 1.01 of reference C code for floating point implementation of the G.729 8 kbit/s CS-ACELP speech coder

**G.729 Annex C+ (02/00)**

This annex includes an electronic attachment containing version 2.1 of reference C code for floating point implementation of CS-ACELP at 6.4/8/11.8 kbit/s with DTX functionality

**G.729 Annex D (02/00)**

This Annex includes one electronic attachment containing version 1.3 of source C code for fixed point implementation of the G.729 6.4 kbit/s CS-ACELP speech coder, which reflects modifications given in Corrigendum 1 (02/2000)

<b>Series</b>	<b>Subject</b>
<b>G.729 Annex D (1998)</b>	
<b>Corrigendum 1 (02/00)</b>	This corrigendum concerns only the software; the resulting version 1.3 is included in the published ITU-T Recommendation G.729 Annex D (09/1998)
<b>G.729 Annex E (09/98)</b>	This Annex includes one electronic attachment containing version 1.3 of source C code and test vectors for fixed point implementation of the G.729 11.8 kbit/s CS-ACELP speech coder, which reflects modifications given in Corrigendum 1 (02/2000)
<b>G.729 Annex E (1998)</b>	
<b>Corrigendum 1 (02/00)</b>	This corrigendum concerns only the software; the resulting version 1.3 is included in the published ITU-T Recommendation G.729 Annex D (09/1998)
<b>G.729 Annex E (1998)</b>	
<b>Corrigendum 1 (02/00)</b>	This corrigendum concerns only the software; the resulting version 1.3 is included in the published ITU-T Recommendation G.729 Annex E (09/1998)
<b>G.729 Annex F (02/00)</b>	This annex includes an electronic attachment containing version 1.1 of reference C code and test vectors for fixed point implementation of CS-ACELP at 6.4 kbit/s 8 kbit/s with DTX functionality
<b>G.729 Annex G (02/00)</b>	This annex includes an electronic attachment containing version 1.1 of reference C code and test vectors for fixed point implementation of CS-ACELP at 8 kbit/s and 11.8 kbit/s with DTX functionality
<b>G.729 Annex H (02/00)</b>	This annex includes an electronic attachment containing version 1.1 of reference C code and test vectors for fixed point implementation of CS-ACELP at 6.4 kbit/s 8 kbit/s and 11.8 kbit/s without DTX functionality
<b>G.729 Annex I (02/00)</b>	This annex includes an electronic attachment containing version 1.1 of reference C code and test vectors for fixed point implementation of CS-ACELP at 6.4 kbit/s, 8 kbit/s and 11.8 kbit/s with DTX functionality
<b>G.763 (10/98)</b>	This Recommendation includes 2 diskettes. The first one contains A-Law and $\mu$ -Law test vectors for DCME verification. The second one contains example transmit/receive SDLs. Covering note, May 2000: Erratum
<b>G.763 Appendix I (10/98)</b>	This appendix includes one diskette containing information on the additional requirements
<b>G.776.1 (10/98)</b>	This Recommendation includes one diskette containing the information model of Signal Processing Network Elements (SPNE)
<b>G.967.1 (06/98)</b>	This Recommendation includes one diskette containing the SDL process diagrams corresponding to the VB5.1 reference point

<b>Series</b>	<b>Subject</b>
<b>G.967.2 (02/99)</b>	This Recommendation includes one diskette containing the SDL process diagrams corresponding to the VB5.2 reference point
<b>H.341 (05/99)</b>	This Recommendation includes one diskette containing the formal descriptions of Annexes A, B, C, D and E for the multimedia management information base
<b>H Supplement 1 (05/99)</b>	This supplement includes one CD-ROM containing the video clip "Irene" to be used as test material for video coding of sign language
<b>J.120 (05/00)</b>	
<b>J.170 (02/02)</b>	
<b>M.3120 (10/01)</b>	
<b>P.50 Appendix I (02/98)</b>	This Appendix includes one CD-ROM containing the speech database for telephony applications. Not available through Electronic Bookshop. To purchase, please contact Sales@itu.int
<b>P.501 (05/00)</b>	This Recommendation includes one CD-ROM containing test signals for telephony applications
<b>P.834 (07/02)</b>	
<b>P.861 (02/98)</b> <b>Withdrawn (07/01)</b>	P.861 was recognized as having certain limitations in specific areas of application. It was replaced by P.862, which contains an improved objective speech quality assessment algorithm. P.861 included one diskette containing test vectors for implementation verification of the PSQM algorithm
<b>P.862 (02/01)</b>	
<b>P.862 Amendment 1 (2001)</b>	
<b>P Supplement 23 (02/98)</b>	This supplement includes 3 CD-ROMs containing the ITU-T coded speech database for 8 kbit/s codec tests Not available through Electronic Bookshop. To purchase, please contact Sales@itu.int
<b>Q.765.1 bis (12/99)</b>	This Recommendation includes an electronic attachment containing the ATS for ISUP97 for APM support of VPN in machine processable form and in pdf form
<b>Q.784.2 (06/97)</b>	This Recommendation includes one diskette containing Annex D ISUP92 ATS for Basic Call in graphical and in machine processable form
<b>Q.784.3 (12/99)</b>	This Recommendation includes an electronic attachment containing the ATS for ISUP97 basic call control procedures in machine processable form and in pdf form
<b>Q.785.2 (03/99)</b>	This Recommendation includes one CD-ROM containing the ISUP97 ATS for Supplementary Services in machine processable form and in graphical form
<b>Q.785.2 Amendment 1 (12/00)</b>	
<b>Q.785.2 Erratum 1 (2002)</b>	
<b>Q.921 bis (03/93)</b>	This Recommendation includes 5 diskettes containing postscript files of ATS for testing conformance of basic rate user side equipment to ITU-T Rec. Q.921



<b>Series</b>	<b>Subject</b>
<b>Q.933<b><i>bis</i></b> (10/95)</b>	This Recommendation includes one diskette containing Abstract test suites Section II corresponding to additional procedures for PVCs as per ITU-T Rec. Q.933 Annex A
<b>Q.953.5 (12/99)</b>	This Recommendation includes one diskette containing the SDL process diagrams of DSS1 CCNR in machine processable form
<b>Q.1228 (09/97)</b>	This Recommendation includes 3 diskettes containing ITU-T Rec. Q.1228 SDL diagrams in SDT source format and in PDF format
<b>Q.1238.1 (06/00)</b>	This Recommendation includes an electronic attachment containing the ASN.1 definitions for the IN CS-3 common aspects
<b>Q.1238.2 (06/00)</b>	This Recommendation includes an electronic attachment containing the ASN.1 definitions and the SDL diagrams in machine processable forms and in pdf form for SCF-SFF interface
<b>Q.1238.3 (06/00)</b>	This Recommendation includes an electronic attachment containing the ASN.1 definitions for the IN CS-3 SCF-SRF interface
<b>Q.1238.4 (06/00)</b>	This Recommendation includes an electronic attachment containing the ASN.1 definitions for the IN CS-3 SCF-SDF interface
<b>Q.1238.5 (06/00)</b>	This Recommendation includes an electronic attachment containing the ASN.1 definitions for the IN CS-3 SDF-SDF interface
<b>Q.1238.6 (06/00)</b>	This Recommendation includes an electronic attachment containing the ASN.1 definitions for the IN CS-3 SCF-SCF interface
<b>Q.1238.7 (06/00)</b>	This Recommendation includes an electronic attachment containing the ASN.1 definitions for the IN CS-3 SCF-CUSF interface
<b>Q.1248.1 (07/01)</b>	
<b>Q.1248.2 (07/01)</b>	
<b>Q.1248.3 (07/01)</b>	
<b>Q.1248.4 (07/01)</b>	
<b>Q.1248.5 (07/01)</b>	
<b>Q.1248.6 (07/01)</b>	
<b>Q.1248.7 (07/01)</b>	
<b>Q.1600<b><i>bis</i></b> (12/99)</b>	This Recommendation includes an electronic attachment containing the ATS in machine processable form and in pdf form for ISUP'97/INAP CS-1 interaction
<b>Q.1950 (07/01)</b> <b>Withdrawn</b>	

**Series****Subject****Q.2991.1 (12/99)**

This Recommendation includes an electronic attachment containing Test Purpose list for network integration testing

**Q.2991.2 (12/99)**

This Recommendation includes an electronic attachment containing the ATS in machine processable form and in pdf form for network integration testing

**T.24 (06/98)**

This Recommendation includes 2 CD-ROMs containing the digitized image set. Due to the data large volume, this Recommendation is not downloadable from the Electronic Bookshop and should be provided from ITU Sales department (Email Sales@itu.int). ITU-T Rec. T.24 text is downloadable free of charge for information purpose. The specimens reproduced inside this text are given for illustration purposes and are not suitable for measurements.

**T.24 Amendment 1  
(02/00)****T.83 (11/94)**

This Recommendation includes 3 diskettes containing compliance test data for the generic encoder and decoder compliance tests

**T.87 (06/98)**

This Recommendation includes one diskette containing the JPEG-LS Lossless and near-lossless image compression reference implementation and a conformance testing image set

**T.803 (11/02)****T.804 (08/02)****T.870 (03/02)**

This Recommendation includes an electronic attachment containing the data set used for implementing the JPEG-LS T.870 extension conformance test

**V.56<sup>ter</sup> (08/96)**

This Recommendation includes 2 diskettes containing the data files used for the voiceband duplex modems throughput tests

**X.633 Add.1 (09/98)**

This text is published in English only. It includes one diskette containing the SDT files of the SDL specifications of the Network Fast Byte protocol

**X.634 Add.1 (09/98)**

This text is published in English only. This Annex includes one diskette containing the SDT files of the SDL specifications of the Transport Fast Byte protocol

# ITU-T TEST CHARTS

The following is a list of the different test charts published by ITU-T, and intended to test different facsimile communication equipment. The test charts conform to severe quality constraints and are published separately. The specimens reproduced inside Recommendations are given for illustration purposes and are not suitable for measurements.

## **T.22 (03/93) – Test Chart No. 4: Black and white facsimile test chart BW01**

302 × 222 mm high contrast bi-level chart containing text in a variety of languages, fonts and pitches and various black and white patterns. This test chart exists in two qualities:

<i>Test chart No. 4, high quality</i>	<i>4530</i>	<i>12 CHF</i>
<i>Test chart No. 4, standard quality</i>	<i>5494</i>	<i>5 CHF</i>

## **T.22 (03/93) – Test Chart No. 5: Continuous tone facsimile test chart CT01**

279 × 216 mm gray scale chart containing several strips and patches of various gray scale levels, and two photographs.

<i>Test chart No. 5</i>	<i>11941</i>	<i>26 CHF</i>
-------------------------	--------------	---------------

## **T.23 (04/94) – Test Chart No. 6: 4-colour printing facsimile test chart 4CP01**

302 × 222 mm full colour chart printed from 4-colour separation negatives, containing a complete range of patterns, textures, shadings and bright and pastel colours.

<i>Test chart No. 6</i>	<i>10465</i>	<i>9 CHF</i>
-------------------------	--------------	--------------

## **T.24 (06/98) – Standardized digitized image set on CD-ROM**

This digitized test chart set is an integral part of Recommendation T.24 and is published with it. The 2 CD-ROMs include a set of digitized images with different resolutions:

- eight black and white ITU-T reference pages (the “CCITT images”)
- test chart No. 4 (BW01)
- one legibility test chart
- seven bi-level half tones images made by processing gray scale images with different algorithms
- test chart No. 5 (CT01)
- two gray-scale images
- test chart No. 6 (4CP01)
- 14 colour images with different resolutions and in different colour spaces (YUV, CMYK, RGB, CIELAB)
- low contrast gray scale images

<i>Rec. + CD-ROM</i>	<i>E 16670</i>	<i>F 16671</i>	<i>S 16672</i>	<i>154 CHF</i>
----------------------	----------------	----------------	----------------	----------------

## OTHER ITU-T PRODUCTS

### ITU Operational Bulletin (2004) (printed versions, electronic version and online service)

2004

The ITU Operational Bulletin is a fortnightly service publication, prepared under the responsibility of the Telecommunication Standardization Bureau (TSB). Published on the 1st and 15th of each month, it contains the administrative and operational information exchanged between administrations/recognized operating agencies (ROAs) and other service providers, entities and organizations, in respect of the international telecommunication services made available to users, including information relating to the maritime mobile service. Various lists containing the codes, numbers or indicators allocated to countries and operators to meet the operational needs of international telecommunication services are published in annex to the Operational Bulletin.

*Separate edition in E, F, S*

*385 CHF*

Paper – Online – Electronic Bookshop

### Lists annexed to Operational Bulletin

#### Note from the TSB

The following Lists\* have been published by TSB or BR as Annexes to the ITU Operational Bulletin (OB):

<b>OB No.</b>	<b>Title</b>	<b>Price</b>
707	List of International Signalling Point Codes (ISPC) (According to ITU-T Recommendation Q.708 (03/99)) (Position on 1 January 2000)	20 CHF
711	List of Signalling Area/Network Codes (SANC) (Complement to ITU-T Recommendation Q.708 (03/99)) (Position on 1 March 2000)	20 CHF
714	List of ITU Carrier Codes (According to ITU-T Recommendation M.1400) (02/2000) Position on 15 April 2000 and List of Data Network Identification Codes (DNIC) (According to ITU-T Recommendation X.121) (Position 15 April 2000)	20 CHF
717	List of ITU-T Recommendation E.164 assigned country codes (Position on 1 June 2000)	20 CHF
719	Dialling Procedures (International prefix, national (trunk) prefix and national (significant) number) (In accordance with ITU-T Recommendation E.164 (05/97)) (Position on 1 July 2000)	20 CHF
720	List of Data Country or Geographical Area Codes (Complement to ITU-T Recommendation X.121) (Position on 15 July 2000)	20 CHF
725	List of names of administration management domains (ADMD) (In accordance with ITU-T F.400 and X.400 series Recommendations) (Position on 30 September 2000)	20 CHF
727	List of issuer identifier numbers for the international telecommunication charge card (In accordance with ITU-T Recommendation E.118) (Position on 1 November 2000)	20 CHF

<b>OB No.</b>	<b>Title</b>	<b>Price</b>
735	List of international signalling point codes (ISPC) (According to ITU-T Recommendation Q.708 (03/99)) (Position on 1 March 2001)	20 CHF
737	List of signalling area/network codes (SANC) (Position on 1 April 2001)	20 CHF
739	List of ITU carrier codes (According to ITU-T Recommendation M.1400 (02/2000))	20 CHF
741	List of mobile country or geographical area codes (Position on 1 June 2001)	20 CHF
746	Access codes/numbers for mobile networks (According to ITU-T Recommendation E.164 (05/97)) (Position on 15 August 2001) List of data network identification codes (DNIC) (According to ITU-T Recommendation X.121 (10/00)) (Position on 15 August 2001)	20 CHF
757	List of issuer identifier numbers for the international telecommunication charge card (in accordance with ITU-T Recommendation E.118) (Position on 1 February 2002)	20 CHF
759	Dialling Procedures (International prefix, national (trunk) prefix and national (significant) number) (In accordance with ITU-T Recommendation E.164 (05/97)) (Position on 1 March 2002)	20 CHF
761	List of international signalling point codes (ISPC) (According to ITU-T Recommendation Q.708 (03/99)) (Position on 1 april 2002)	20 CHF
763	List of ITU-T Recommendation E.164 assigned country codes (Position on 1 May 2002)	20 CHF
764	List of telegram destination indicators (In accordance with ITU-T Recommendation F.32) (Position on 15 May 2002)	20 CHF
765	Access codes/numbers for mobile networks (According to ITU-T Recommendation E.164) (Position on 1 June 2002)	20 CHF
766	List of country or geographical area codes for non-standard facilities in telematic services (Position on 15 June 2002)	20 CHF
767	List of signalling area/network codes (SANC) (Position on 1 July 2002) BR: Status of radiocommunications between amateur stations of different countries (In accordance with optional provision No. 25.1 of the Radio Regulations) and form of call signs assigned by each administration to its amateur and experimental stations (Position on 1 July 2002)	20 CHF
777	List of data network identification codes (DNIC) (According to ITU-T Recommendation X.121) (Position on 1 December 2002)	20 CHF
781	Various tones used in national networks (According to ITU-T Recommendation E.180)(03/1998) (Position on 1 February 2003)	20 CHF
783	List of mobile country or geographical area codes (Position on 1 March 2003)	20 CHF
785	List of issuer identifier numbers for the international telecommunication charge card (In accordance with ITU-T Recommendation E.118) (Position on 1 April 2003)	20 CHF

<b>OB No.</b>	<b>Title</b>	<b>Price</b>
787	Dialling procedures (International prefix, national (trunk) prefix and national (significant) number) (In accordance with ITU-T Recommendation E.164 (05/97)) (Position on 1 May 2003)	20 CHF
789	Access codes/numbers for mobile networks (According to ITU-T Rec. E.164) (Position on 1 June 2003)	20 CHF
797	Q.708 (03/99)) (Position on 1 October 2003)	20 CHF
798	List of data network identification codes (DNIC) (According to ITU-T Recommendation X.121) (Position on 15 October 2003)	20 CHF
799	List of signalling area/network codes (SANC) (Position on 1 November 2003)	20 CHF
801	Mobile Network Code (MNC) for the international identification plan for mobile terminals and mobile users (According to ITU-T Rec. E.212 (11/98)) (Position on 1 December 2003)	20 CHF
803	List of mobile country or geographical area codes (Position on 1 January 2004)	20 CHF
805	List of ITU-T Recommendation E.164 assigned country codes (Position on 1 February 2004)	20 CHF

- \* For information, all lists will be updated by numbered series of amendments published in the ITU Operational Bulletin, and will be reissued as necessary.  
Furthermore, the lists can be consulted online by the subscribers:  
([www.itu.int/itu-t/bulletin/index.html](http://www.itu.int/itu-t/bulletin/index.html)) in the ITU document database, under the heading "*Operational Bulletin and Lists annexed*".



**ITU-T Sancho – (ITU-T Sector Abbreviations and definitions for a telecommunications thesaurus Oriented database)**

1999

SANCHO is the ITU-T database that contains both “terms and definitions” and “abbreviations and acronyms” defined within ITU-T standardization publications. This is a unique and complete reference for definitions in the field of global telecommunications standardization.

*CD-ROM*

*Article*

***E 16169***

*125 CHF*

# Sales and Distribution

ITU-T Recommendations are published in English, French and Spanish. Some of them are also available in Arabic, Chinese and Russian. They are distributed in the following formats:

## 1 ITU-T Recommendations on paper

ITU-T Recommendations currently in force are published in individual fascicles. Prices for these fascicles are based on the number of pages and vary according to the Recommendation. To order Recommendations, please complete the Order Form given on page 219.

## 2 ITU-T Recommendations on DVD-ROM\*

The *ITU-T Recommendations on DVD-ROM* contains the complete collection of the Recommendations published and currently in force, and available in two formats: Adobe Acrobat PDF and MS Word for Windows.

The DVD-ROM comprises both existing formats with “search” functions across all Recommendations.

The DVD-ROM also includes pre-published Recommendations, subject to their availability at the time the DVD-ROM is produced.

It does not include certain software programmes associated with the Recommendations, which must be ordered and paid for separately.

The product is available in three separate versions: English, French and Spanish.

Separate editions are published in March, June, September and December of each year. Alternatively, subscriptions covering four consecutive editions may be taken out at any time.

Catalogue price for a *single user* is:

- 1,050 Swiss francs (CHF) for a single issue (published quarterly), and
- 2,940 Swiss francs (CHF) for a yearly subscription (covering 4 consecutive issues).

Price multipliers apply for *multi-user* environments, at the same location or at different locations for customers who wish to subscribe for a larger number of authorised users. A ceiling price of 52,500 Swiss francs is applied for yearly subscriptions with more than 100 users.

To obtain this product, customers are invited to complete a License Agreement attached to Publication Notice No. 197-04 available from the Sales and Marketing Division or on the Web at:

**[www.itu.int/publications/cd-rom.htm](http://www.itu.int/publications/cd-rom.htm)**

---

\* From June 2004.

The *Electronic Bookshop* is ITU's publication online ordering and delivery service. It enables the customer to purchase ITU publications and download them immediately from the ITU Website or by electronic mail. **ITU-T Recommendations in force**, both **published** and **pre-published**, as well as **superseded** ITU-T Recommendations, are available **individually** from the ITU *Electronic Bookshop*.

It is important to note that some discrepancies may exist between the pre-published Recommendation and the final edited version.

The system currently supports **realtime online payment** validation for Mastercard, VISA and American Express. With the new full-featured shopping basket, the client may now purchase as many publications as desired in a single credit card transaction. Once the transaction has gone through, the client also has the option to receive a receipt via fax.

The service runs on the Netscape Enterprise server. Due to security considerations, a browser which supports Netscape's SSL (Secure Sockets Layer) is required. All credit card details entered on the order form are encrypted when using Netscape's SSL protocol.

The price depends on the ITU-T Recommendation which is being ordered, although **there is a minimum of 20 Swiss francs (CHF) per document**. The price is indicated on the screen for each individual publication. No discounts are available via this service.

**ITU offers free of charge the first three downloads of Recommendations per person per year from the Electronic Bookshop, including for non-Members.**

The *Electronic Bookshop* is accessible from the ITU Website at the following address:

**[www.itu.int/publications/](http://www.itu.int/publications/)**

## 4 ITU-T Recommendations Online

The *ITU-T Recommendations Online* is an annual subscription service to the electronic versions of the Recommendations in force. Over 2,600 Recommendations are accessible in two formats:

- Recommendations in their *original* Word for Windows format.
- Recommendations in Adobe Acrobat PDF format.

As the approval and the publication of these Recommendations is a continuous process, the online collection is continuously revised and contains the most comprehensive and timely collection available in electronic form. This is a complete collection of all currently published valid ITU-T Recommendations. **Pre-published and recently superseded Recommendations are also available online.**

Recommendations in Word for Windows are best suited for reprocessing for some of the Recommendations, there is a brief summary that can be browsed online before downloading.

The Adobe Acrobat PDF (Portable Document Format) can be used on many different platforms (Windows 3.1, 95 and NT; Macintosh and Unix). PDF allows stable quality printout on almost any printer and on different paper sizes.

Subscriptions are made for a period of twelve months starting from the date on which ITU provides the passwords.

English, French and Spanish versions are available within the same subscription service.

The catalogue price for a *single user* yearly subscription is 3,570 Swiss francs (CHF).

For *multi-user* environments, at the same location, price multipliers are 2 (up to 10 users), 4 (up to 25 users), 6 (up to 50 users) and 9 (up to 100 users). A ceiling price of 52,500 Swiss francs is applied for yearly subscriptions with more than 100 Authorized Users.

Upon request, special Licence Agreements are available for subsidiary/parent corporations as well as up-loading to a corporate-wide server.

To subscribe, customers are invited to complete a Licence Agreement attached to Publication Notice No. 198-04 available from the Sales and Marketing Division or on the ITU Website.

**Since 1 January 2001, ITU offers one free subscription to Online Recommendations for one person per Member State or Sector Member.**

This online service is accessible from the ITU Website at:

**[www.itu.int/publications/online.htm](http://www.itu.int/publications/online.htm)**

## 5 General conditions of sale

### ■ Prices

The prices quoted in this List, as well as in the List of ITU-R Recommendations, in the ITU Catalogue of Publications and in Publication Notices (distributed free of charge and visible on the ITU website at the following address: **[www.itu.int/publications](http://www.itu.int/publications)**), are in Swiss francs (CHF) and are subject to change without notice.

Discounts of 15% are granted to Member States and Sector Members participating in the work of ITU. A discount of 80% of the catalogue price on all ITU publications is granted to Administrations of the Least Developed Countries (LDCs), as well as to libraries of educational institutions (for online subscriptions and CD-ROM publications only).

Catalogue prices of electronic publications (on CD-ROM and online) are given for single users. For corporations and institutions, multi-user licences are granted taking into account the number of authorized users. Please refer to the corresponding Publication Notices on the Web. For a higher number of authorized users, the price multiplier is available on request. Please note that the minimum price for a publication bought from the Electronic Bookshop is twenty Swiss francs (CHF 20.–) and that there is no discount when using this service.

### ■ Methods of payment

All publications ordered from ITU must be paid for in advance. Payments can be made:

- a) by credit card: American Express, Eurocard/Mastercard, Visa;
- b) by bank transfer to the UBS SA, Geneva, Account ITU Geneva, No. CH 96 0024 0240 C876 5565 0;  
SWIFT UBSWCHZH80A – Clearing No. 240;
- c) by cheque made payable to ITU;
- d) by international postal order;
- e) to the ITU postal cheque account: ITU Geneva, No. 12-50-3 (from within Switzerland);
- f) by UNESCO coupon.

Payments normally should be made in Swiss francs (CHF). Payments may also be made in other currencies freely convertible into CHF, provided that, when converted by the bank, the price of the service in CHF is covered. ITU does not accept letters of credit.

*For faster order processing, we invite you to either pre-pay by credit card or take advantage of a new service by opening an ITU deposit account.*

### ■ Forms of dispatch

The catalogue price includes the cost of dispatch by non-registered economy-class mail or the means of carriage most advantageous to ITU. Dispatch can be requested in other forms: i.e. airmail, DHL, Federal Express, TNT, UPS or diplomatic pouch. If one of these alternative methods is chosen, the dispatch cost will be added to the quote. As from 1 February 2003, the costs of shipping via registered mail have been added to the economy-class costs. You may, if you wish, refuse these conditions but, in this case, ITU will not be held responsible for the replacement of any undelivered orders dispatched by mail that has not been registered. Customs duties and other taxes or dues levied on imported goods are not borne by ITU. ITU **accepts no responsibility** for delay, loss or damage in shipment. Any discrepancy or claim must be communicated to ITU within one year of dispatch of the publication(s).

### ■ Return of publications

Where a publication found to be faulty is returned to ITU, the latter's responsibility shall be limited to replacement of the publication and payment of the costs arising from such replacement. Any publication returned to ITU as unwanted must reach it within one (1) month from the date of its dispatch to the customer, subject to ITU's prior agreement. A minimum charge of fifty Swiss francs (CHF 50.–) will normally be invoiced to the customer by ITU for return of the publication to stock.

No exchange or refund is available for purchases made directly at the ITU Bookshop.

In the case of electronic publications (CD-ROM and online), these general conditions shall apply, subject to the specific derogation provisions contained in the Licence Agreements. The placing of an order implies full acceptance of these general conditions of sale.

None of the provisions of these general conditions of sale shall be interpreted as constituting a derogation or renunciation of the privileges, immunities and facilities enjoyed by ITU in accordance with the international agreement applicable to it, in particular the Headquarters Agreement concluded with the Swiss Federal Council on 22 July 1971, as well as the Swiss law or any other relevant national legislation.

**Please note that orders cannot be taken over the telephone.  
They should be sent by telefax or electronic mail.**

Please contact the ITU Sales and Marketing Division (see below) for any further information concerning prices, availability or purchase of ITU-T Recommendations:

**International Telecommunication Union**

Sales and Marketing Division

Place des Nations

CH-1211 Geneva 20

Switzerland

Telephone: + 41 22 730 61 41 (English)

+ 41 22 730 61 42 (French)

+ 41 22 730 61 43 (Spanish)

Telefax: + 41 22 730 51 94

E-mail: [sales@itu.int](mailto:sales@itu.int)

Web: [www.itu.int/publications](http://www.itu.int/publications)





International  
Telecommunication  
Union

International Telecommunication Union  
Sales and Marketing Division  
Place des Nations  
CH-1211 Geneva 20 - Switzerland  
Telefax: +41 22 730 5194 E-mail: sales@itu.int

**Customer's billing address** (please PRINT or type)

Name of the Company or Institution

Division / Department

Name of Contact Person

Street / Post Office Box

City, State

ZIP / Post Code

Country

Phone number

Telefax number

E-mail

**Preferred form of shipment**

☐ Economy (free of charge)\* ☐ Federal Express (Int. Acc. #)

☐ Economy registered

☐ UPS (Int. Acc. #)

☐ Airmail registered

☐ DHL (Int. Acc. #) ☐ TNT (Int. Acc. #)

**Customer's shipping address** (if different from above)

Name of the Company or Institution

Division / Department

Street / Post Office Box

City, State, ZIP / Post Code

Country

**Method of payment**

☐ Cheque or money order of \_\_\_\_\_ CHF enclosed

☐ Bank transfer of \_\_\_\_\_ CHF  
to UBS SA, Geneva, Account No. CH 96 0024 0240 C876 5565 0  
SWIFT UBSWCHZH80A - Clearing No. 240

☐ Please charge \_\_\_\_\_ CHF to my credit card account

☐ American Express ☐ Eurocard / Mastercard ☐ Visa

Card number

Expiry date  Cardholder \_\_\_\_\_

**Please send me**

Article number	Publication title	Lang. code	Unit price	Quantity	Total CHF

**I confirm this order**

Your order reference

Name of signatory

Date

Signature

\*Please note that ITU will not be held responsible for the replacement of any undelivered orders dispatched **by mail** which has **not been registered**.  
ITU accepts **no responsibility** for loss, delay or damage in shipment.

Order Form

REFPUB CATALOG ORDER

