**International Telecommunication Union**

# ITU-T

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# J.222.0
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SERIES J: CABLE NETWORKS AND TRANSMISSION
OF TELEVISION, SOUND PROGRAMME AND OTHER
MULTIMEDIA SIGNALS

Interactive systems for digital television distribution

## Third-generation transmission systems for interactive cable television services – IP cable modems: Overview

ITU-T  Recommendation  J.222.0

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## Third-generation transmission systems for interactive cable television services – IP cable modems: Overview

**Summary**

ITU-T Recommendation J.222.0 identifies the three components of the third generation of transmission systems for interactive cable television services. They are defined in detail in ITU-T Recommendations J.222.1, J.222.2 and J.222.3, respectively.

## FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

## NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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**ITU-T Recommendation J.222.0**

**Third-generation transmission systems for interactive cable television services – IP cable modems: Overview**

## 1    Scope

This Recommendation is an overview of the third generation of transmission systems for interactive cable television systems. It identifies the three components specifying the physical layer interface, the MAC and upper layer protocols interfaces and the security services.

## 2    References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T J.210]      ITU-T Recommendation J.210 (2006), *Downstream RF interface for cable modem termination systems*.

[ITU-T J.222.1]    ITU-T Recommendation J.222.1 (2007), *Third-generation transmission systems for interactive cable television services – IP cable modems: Physical layer specification*.

[ITU-T J.222.2]    ITU-T Recommendation J.222.2 (2007), *Third-generation transmission systems for interactive cable television services – IP cable modems: MAC and upper layer protocols*.

[ITU-T J.222.3]    ITU-T Recommendation J.222.3 (2007), *Third-generation transmission systems for interactive cable television services – IP cable modems: Security services*.

## 3    Definitions

This Recommendation does not define any terms.

## 4    Abbreviations and acronyms

This Recommendation does not define any new abbreviations and acronyms.

## 5    Conventions

This Recommendation does not use any particular notation, style, presentation, etc.

# 6 Overview of the third-generation transmission system

This Recommendation provides an overview over a series of Recommendations that define the third generation of high-speed data-over-cable systems. Specifically, it identifies the Recommendations defining the physical layer interface [ITU-T J.222.1], the MAC and upper layer protocol interfaces [ITU-T J.222.2] and the security services [ITU-T J.222.3]. Additionally, [ITU-T J.210] defines the downstream physical layer transmission specifications, which are applicable to the third generation of high-speed data-over-cable systems. The third-generation transmission system introduces a number of new features that build upon what was present in previous versions (ITU-T Recs J.112 and J.122). A summary of the series of Recommendations is provided in Table 6-1. All Recommendations are required to implement the third-generation transmission system for interactive cable television services.

**Table 6-1 – Series of Recommendations for the third-generation transmission systems**

| Designation | Title |
|---|---|
| J.222.1 | Physical layer specification |
| J.222.2 | Media access control and upper layer protocols interface specification |
| J.222.3 | Security services specification |
| J.210 | Downstream RF interface for cable modem termination systems |

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