# RECOMMENDATION ITU-R BT.1667

## Terrestrial return channel for interactive broadcasting services operating in the VHF/UHF broadcast band based on Recommendation ITU-R BT.1306

(Question ITU-R 16/6)

(2003)

The ITU Radiocommunication Assembly,

*considering*

a) that substantial progress in digital broadcasting technologies has resulted in the implementation of operating digital broadcasting services;

b) that Recommendation ITU-R BT.1306 specifies systems for digital terrestrial television broadcasting that are already widely used;

c) that interactivity is recognised to be a desirable feature for broadcast services, the need for suitable systems being addressed by Question ITU-R 16/6;

d) that, for that purpose a terrestrial return channel is particularly attractive for broadcast services operating in the VHF or UHF bands as it does not require any physical connection to a separate network;

e) that terrestrial interaction channels using enhanced cordless telecommunications and a global system for mobile communications are available in Recommendations ITU-R BT.1507 and ITU-R BT.1508 respectively;

f) that, for the time being, comprehensive developments on return channels operating in the existing broadcast band to augment terrestrial DTV systems have been carried out by several organizations, in particular the Digital Video Broadcasting (DVB) Consortium, and have resulted in an ETSI Standard;

g) that Question 16/6 states that protocols and modulation techniques for interactive broadcasting should preferably be selected from among those already standardised,

*recommends*

**1** that, when a terrestrial return channel is operated in the VHF/UHF broadcast band in association with System B of Recommendation ITU-R BT.1306 for digital terrestrial television broadcasting, the system specified in ETSI EN 301 958 V1.1.1 (2002-03) as shown in Annex 1 should be used.

NOTE 1 – Interactive digital television systems are expected to evolve in the next few years and therefore other return channel technologies, for use with systems defined in Recommendation ITU-R BT.1306, are likely to be developed. Proposals for return channel technologies for the other systems in Recommendation ITU-R BT.1306 are encouraged for inclusion in this Recommendation.

# Annex 1

## ETSI Standard EN 301 958 V1.1.1

ETSI Standard EN 301 958 Version 1.1.1 is available in electronic form from the ITU website at: http://web/ITU-R/study-groups/rsg6/index.asp.

ETSI Standard EN 301 958 V1.1.1 and its summary refer to the 2002/03 version only which is the version approved by administrations of Member States of ITU in application of Resolution ITU-R 1-4 on 11 December 2003. By agreement between ITU and ETSI, this version was authorised for use by ETSI and accepted by ITU-R for inclusion in this Recommendation. Any subsequent version of EN 301 958 which has not been accepted and approved by ITU-R is not part of this Recommendation. For subsequent versions of ETSI documents, the reader should consult the ETSI website: http://www.etsi.org.

Appendix 1 gives an executive summary of the ETSI Standard EN 301 958 Version 1.1.1.

Appendix 2 contains the text of this ETSI Standard.

# Appendix 1
# to Annex 1

## ETSI Standard EN 301 958 V1.1.1

**Executive summary**

**(ETSI EN 301 958 – Digital Video Broadcasting (DVB); Interaction channel for Digital Terrestrial Television (RCT) incorporating Multiple Access OFDM)**

This document is the baseline specification for the provision of the interaction channel for digital terrestrial television broadcasting system, DVB-T, defined in the EN 300 744 Standard.

The specification:

– gives a general description of the baseline system for interactive digital terrestrial TV;

– specifies the channel coding/modulation;

– specifies the medium access control (MAC) protocol;

– provides guidelines on the radio-frequency spectrum management.

The purpose of the MAC section is to redefine a set of MAC messages based on the DVB-RCCL MAC message set, adapted to suit the specific characteristics of the physical layer of the DVB-RCT specification.

The solution provided in the document for return channels through terrestrial broadcast systems is part of a wider set of alternatives for implementing interactive services for DVB systems.

# Appendix 2
# to Annex 1

ETSI Standard EN 301 958 V1.1.1.