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Mobile and portable DVB-T/H radio access – Part 1: Interface specification

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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CONTENTS

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FOREWORD

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International Standard IEC 62002-1 has been prepared by technical area 1: Terminals for audio, video and data services and content, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

This second edition cancels and replaces the first edition, published in 2005 and constitutes a technical revision.

The main changes with respect to the previous edition are listed below.

- DVB-H has been included as a part of the main specification.
- All the performance figures have bee revised as new simulation results have been made available as well as new reference receivers for DVB-H have been developed.
- DVB-H now includes all the different MPE-FEC code rates.
- New portable indoor and portable outdoor channel models have been included as well as performance figures for those.
- A new 2x TU-6 mobile SFN test channel has been included.

- A new L4 linearity pattern has been added.
- Dedicated performance figures for DVB-H for S1, S2, L1 to L4 interference patterns have been included.
- A new GSM-interference measurement method has been added.

The text of this standard is based on the following documents:

CDV	Report on voting
100/1289/CDV	100/1381/RVC

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 62002 series, under the general title *Mobile and portable DVB-T/H radio access*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

The contents of the corrigendum of July 2008 have been included in this copy.

MOBILE AND PORTABLE DVB-T/H RADIO ACCESS –

Part 1: Interface specification

1 Scope

This part of IEC 62002 is a radio access specification for mobile, portable and hand-held portable devices capable of receiving DVB-T/H services. It includes informative system aspects as well as specifications for minimum RF-performance. It covers terminals in three main classes, namely integrated car terminals, portable digital TV sets and hand-held portable convergence terminals. Interoperability with integrated cellular radios is also considered. The specification covers the following areas.

- Frequency ranges
- Supported modes
- Definition of receiving conditions
- Definition of the receiver RF-reference model
- Definition of degradation criteria
- Antenna characteristics
- Channel models
- C/N-performance with different channels
- Minimum and maximum input levels
- Immunity to interfering signals
- Definition of an ensemble of interference patterns
- Tolerance to impulse interference
- SFN-performance
- Transmitter minimum performance
- Interoperability of cellular radios
- EMC aspects

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CISPR 13, *Sound and television broadcast receivers and associated equipment – Radio disturbance characteristics – Limits and methods of measurement*

CISPR 20, *Sound and television broadcast receivers and associated equipment – Immunity characteristics – Limits and methods of measurement*

IEC 60169-2, *Radio-frequency connectors – Part 2: Coaxial unmatched connector*

ETSI EN 300 744:2007, *Digital Video Broadcasting (DVB); Framing structure, Channel coding and modulation for digital terrestrial television, V1.5.2*

ETSI ETS 300 342-1, *Radio Equipment and Systems (RES); ElectroMagnetic Compatibility (EMC) for European digital cellular telecommunications system (GSM 900 MHz and DCS 1 800 MHz); Part 1: Mobile and portable radio and ancillary equipment*

ETSI EN 300 607-1, *Digital cellular telecommunications system (Phase 2+) (GSM) – Mobile Station (MS) conformance specification – Part 1: Conformance specification*

ETSI EN 302 304:2004, *Digital Video Broadcasting (DVB); Transmission System for Handheld Terminals (DVB-H), V1.1.1*

ETSI TR 101 190 V1.2.2, *Digital Video Broadcasting (DVB); Implementation guidelines for DVB terrestrial services; Transmission aspects*

ITU-R BT.1701-1, *Characteristics of radiated signals of conventional analogue television systems*