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INTERNATIONAL STANDARD

Digital terrestrial television receivers for the DTMB system

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

DIGITAL TERRESTRIAL TELEVISION RECEIVERS FOR THE DTMB SYSTEM

FOREWORD

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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.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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- withdrawn,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.

INTRODUCTION

This International Standard contains baseline specifications and test methods of receivers for the DTMB system. The DTMB (Digital Terrestrial/Television Multimedia Broadcasting) is the digital television terrestrial broadcasting standard of China published in August 2006. The main technologies adopted in this standard are: frame header design and guard interval padding with pseudo-random noise sequences, which can be used for fast synchronization and high-efficiency channel estimation/equalization, low-density parity-check channel coding, spread spectrum transmission of system information. This standard can support payload data rate ranging from 4,813 Mbit/s to 32,486 Mbit/s, standard-definition TV and high-definition TV services, mobile and stationary receptions, multiple frequency network and single frequency network.

- Digital television, as a new generation of TV technology, can improve the transmission quality and make it possible to provide more services. With the worldwide transition from the analogue TV to digital TV, the developing prospect of the DTMB system can be expected in the future.

DIGITAL TERRESTRIAL TELEVISION RECEIVERS FOR THE DTMB SYSTEM

1 Scope

This International Standard specifies the basic functions, interfaces, performance requirements and test methods of the receivers for the Digital Terrestrial/Television Multimedia Broadcasting (DTMB) system. This standard can be applied to digital television terrestrial receivers carrying multiple SDTV programs or HDTV programs for both mobile and stationary receptions.

2 Normative references

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

IEC 61937-12, *Digital audio –Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 – Part 12: Non-linear PCM bitstreams according to the DRA formats*

ISO/IEC 13818-1, *Information technology – Generic coding of moving pictures and associated audio information: Systems*

ISO/IEC 13818-2, *Information technology – Generic coding of moving pictures and associated audio information: Video*

ISO/IEC 13818-3, *Information technology – Generic coding of moving pictures and associated audio information –Part 3: Audio*

ETSI ETR 154, *Digital Video Broadcasting (DVB); Implementation guidelines for the use of MPEG-2 Systems, Video and Audio in satellite, cable and terrestrial broadcasting applications*

ETSI TS 102 366, *Digital Audio Compression (AC-3, Enhanced AC-3) Standard*