# IEC 62516-1

Edition 1.0 2009-02

# INTERNATIONAL STANDARD

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## Terrestrial digital multimedia broadcasting (T-DMB) receivers – Part 1: Basic requirement

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CONTENTS



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

# TERRESTRIAL DIGITAL MULTIMEDIA BROADCASTING (T-DMB) RECEIVERS –

## Part 1: Basic requirement

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International Standard IEC 62516-1 has been prepared by 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.

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

| FDIS | Report on voting |
|---|---|
| 100/1490/FDIS | 100/1521/RVD |

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 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

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# TERRESTRIAL DIGITAL MULTIMEDIA BROADCASTING (T-DMB) RECEIVERS –

## Part 1: Basic requirement

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## 1 Scope

This part of IEC 62516 specifies the characteristics and minimum required performance for terrestrial digital multimedia broadcasting (T-DMB) receivers. The contents of this standard include T-DMB system information, video, audio, and MPEG-4 BIFS data.

## 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.

IEC 62104:2003, *Characteristics of DAB receivers*

ISO/IEC 10918-1, *Information technology – Digital compression and coding of continuous-tone still images: Requirements and guidelines*

ISO/IEC 11172-3, *Information technology – Coding of moving pictures and associated audio for digital storage media at up to about 1,5 Mbit/s – Part 3: Audio*

ISO/IEC 13818-1:2000, *Information technology – Generic coding of moving pictures and associated audio information: Systems*

ISO/IEC 13818-3:1998 *Information technology – Generic coding of moving pictures and associated audio information – Part 3: Audio*

ISO/IEC 14496-1:2001, *Information technology – Coding of audio-visual objects – Part 1: Systems*
Amendment 3 (2003)

ISO/IEC 14496-3, *Information technology – Coding of audio-visual objects – Part 3: Audio*

ISO/IEC 14496-10, *Information technology – Coding of audio-visual objects – Part 10: Advanced Video Coding*

ISO/IEC 14496-11:2005, *Information technology – Coding of audio-visual objects – Part 11: Scene description and application engine*

ISO/IEC 15444-1, *Information technology – JPEG 2000 image coding system: Core coding system*

ITU-T Recommendation H.264, *Advanced video coding for generic audiovisual services*

ETSI TR 101 496-2, *Digital Audio Broadcasting (DAB); Guidelines and rules for implementation and operation – Part 2: System features*

ETSI TS 102 427 V1.1.1, *Digital Audio Broadcasting (DAB); Data Broadcasting –MPEG-2 TS streaming*

ETSI TS 102 428 V1.1.1, *Digital Audio Broadcasting (DAB); DMB video service; User Application Specification*

ETSI EN 300 401 V1.3.3, *Radio Broadcasting Systems; Digital Audio Broadcasting (DAB) to mobile, portable and fixed receivers*

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## 3 Terms, definitions and abbreviations

### 3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

**3.1.1**
**T-DMB receiver**
terminal that can receive and process the programs transmitted following this T-DMB receiver standard

**3.1.2**
**minimum required performance**
lowest performance level allowed for a receiver in order to be called a T-DMB receiver

### 3.2 Abbreviations

| | |
|---|---|
| **AAC** | Advanced Audio Coding |
| **ASO** | Arbitrary Slice Order |
| **AU** | Access Unit |
| **AV** | Audio/Video |
| **AVC** | Advanced Video Coding |
| **BIFS** | BInary Format for Scene |
| **BSAC** | Bit-Sliced Arithmetic Coding |
| **CAVLC** | Context Adaptive Variable Length Coding |
| **CTS** | Composition Time Stamp |
| **CIF** | Common Interchange Format |
| **DAB** | Digital Audio Broadcasting |
| **DP** | Data Partitioning |
| **ES** | Elementary Stream |
| **FIC** | Fast Information Channel |
| **FMO** | Flexible Macroblock Ordering |
| **IMDCT** | Inverse Modified Discrete Cosine Transform |
| **IDR** | Instantaneous Decoder Refresh |
| **IOD** | Initial Object Descriptor |
| **IP** | Internet Protocol |
| **JPEG** | Joint Photographic Experts Group |
| **MCI** | Multiplex Configuration Information |
| **MOT** | Multimedia Object Transfer |
| **MPEG-2** | Motion Picture Experts Groups-2 |
| **MPEG-4** | Motion Picture Experts Groups-4 |
| **MS** | Mid/Side |
| **MSC** | Main Service Channel |
| **NAL** | Network Abstraction Layer |
| **OCR** | Object Clock Reference |
| **OD** | Object Descriptor |
| **OFDM** | Orthogonal Frequency Division Multiplexing |
| **OTB** | Object Time Base |
| **OTC** | Object Time Clock |
| **PAT** | Program Association Table |
| **PCR** | Program Clock Reference |
| **PCM** | Pulse Code Modulation |
| **PES** | Packetized Elementary Stream |