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Baseline specifications of satellite and terrestrial receivers for ISDB (Integrated Services Digital Broadcasting)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

BASELINE SPECIFICATIONS OF SATELLITE AND TERRESTRIAL RECEIVERS FOR ISDB (INTEGRATED SERVICES DIGITAL BROADCASTING)

FOREWORD

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International Standard IEC 62360 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 2004 and constitutes a technical revision.

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

– The non-volatile memory size for terrestrial, BS and CS receiver has been specified.
– Desirable reception channel range of the receiver for VHF and MID band has been specified.
– DVI interface and HDMI interface have been specified as digital interface.
– Down mixing formula from multi-channel to 2-channel stereo has been changed.

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

CDV	Report on voting
100/1323/CDV	100/1423/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.

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- withdrawn;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.

INTRODUCTION

This International Standard is based on, and is the subset of ARIB[1] STD-B21 Version 4.5 which is established with regard to digital broadcasting receivers. It contains baseline specifications of receivers for satellite and terrestrial ISDB systems. It does not contain EPG (Electronic Program Guide), CA (Conditional Access), bi-directional communication function, data decoder function and high speed digital interface connector specification which were covered by the ARIB STD-B21.

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[1] The Association of Radio Industries and Businesses establishes ARIB standards for the basic technical requirements such as various radio-equipment specifications for various radio signal utilization systems, with the participation of broadcasting-equipment manufacturers, broadcasting service providers, radio-equipment manufacturers, telecommunication companies, and their users.

ARIB standards are private standards established by compiling private and voluntary standards that have been developed to increase convenience for broadcasting-equipment manufacturers, broadcasting service providers, radio-equipment manufacturers, telecommunication companies, and their users, such as by ensuring the appropriate quality of and compatibility between broadcasting and radio facilities. These standards are intended to be used in conjunction with national technical standards established to ensure the efficient use of available frequencies and to avoid radio interference between users.

In order to ensure fairness and transparency in the establishment process, the standard was determined by consensus of all participants in our standard meeting, selected without bias from a broad range of interested parties – foreign and domestic, firms and individuals – including broadcasting-equipment manufacturers, broadcasting service providers, radio equipment manufacturers, common carriers, and their users.

BASELINE SPECIFICATIONS OF SATELLITE AND TERRESTRIAL RECEIVERS FOR ISDB (INTEGRATED SERVICES DIGITAL BROADCASTING)

1 Scope

This International Standard specifies the basic functions, ratings, and performance of receivers for the Integrated Services Digital Broadcasting (ISDB) system. It applies to: receivers for standard digital television broadcasting, high-definition television broadcasting, and radio broadcasting from satellite broadcasting stations in the frequency band of 11,7 GHz to 12,2 GHz (hereinafter referred to as “BS digital broadcasting”); receivers for standard digital television broadcasting with a bandwidth of 34,5 MHz from satellite broadcasting stations in the frequency band of 12,2 GHz to 12,75 GHz (hereinafter referred to as “broadband CS digital broadcasting”); and receivers for the standard digital television broadcasting and high-definition television broadcasting from terrestrial broadcasting stations (hereinafter referred to as “digital terrestrial television broadcasting”).

With regard to the receiver, it may be designed for receiving only one broadcast service from the above-mentioned digital broadcasting or for receiving multiple broadcast services. Various types of receivers for receiving digital terrestrial television broadcasts may be designed, that is, receivers intended for fixed, for mobile and for portable reception.

This standard defines the BS digital-broadcasting receiver, the dual-purpose receiver for BS digital broadcasting and broadband CS digital-broadcasting (hereinafter referred to as a “BS and broadband CS digital broadcasting dual-purpose receiver”), as well as the receiver for digital terrestrial television broadcasting using an outdoor fixed receiving antenna and with a large display. For a small-sized simple receiver, a vehicle-mounted receiver, a portable receiver, and the like, this standard should be applied as far as practical.

In this standard, the BS digital-broadcasting receiver and the BS and broadband CS digital-broadcasting dual-purpose receiver are generically described as digital satellite broadcasting receivers.

In addition, when it is necessary to distinguish between the BS digital-broadcasting receiver and the BS and broadband CS digital-broadcasting dual-purpose receiver, [BS] is additionally used to specify a BS digital-broadcasting receiver, and [BS • CS] is used likewise to specify a BS and broadband CS digital-broadcasting dual-purpose receiver.

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.

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 13818-7, *Information technology – Generic coding of moving pictures and associated audio information – Part 7: Advanced Audio Coding (AAC)*

ITU-R BT.419-3, *Directivity and polarization discrimination of antennas in the reception of television broadcasting*

ITU-R BT.709, *Parameter values for the HDTV standards for production and international programme exchang*e

ITU-R BT.1361, *Worldwide unified colorimetry and related characteristics of future television and imaging systems*

IETF Standard: RFC2046, *Multipurpose Internet Mail Extension (MIME) Part Two: Types*