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INTERNATIONAL STANDARD

Digital terrestrial television receivers for the DTMB system

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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CONTENTS

FOREWORD.....	7
INTRODUCTION.....	9
1 Scope.....	10
2 Normative references.....	10
3 Abbreviations and symbols	10
4 Summary of DTMB transmission system.....	12
4.1 General.....	12
4.2 Processing of DTMB transmitter	12
4.3 Processing of DTMB receiver	13
5 Receiver capabilities.....	13
5.1 Frequency spectrum.....	13
5.1.1 Frequency range.....	13
5.1.2 Channel bandwidth	13
5.1.3 Frequency acquisition range.....	13
5.2 Power supply requirements	13
5.3 Interface requirements	13
5.4 Working modes	14
5.5 Program search and tuning.....	14
5.5.1 General	14
5.5.2 Receive quality display.....	14
5.5.3 Automatic search	15
5.5.4 Manual search	15
5.5.5 Modulation parameters change.....	15
5.6 Demultiplex characteristics.....	15
5.6.1 General	15
5.6.2 TS data rate.....	15
5.6.3 STC recovery.....	15
5.6.4 Error control.....	15
5.6.5 PID filters	15
5.6.6 Multi-component programs	15
5.7 Transport stream decoding characteristics.....	16
5.7.1 Service and program information	16
5.7.2 EPG	18
5.7.3 Presentation of subtitle	18
5.8 Function requirements.....	18
5.8.1 General	18
5.8.2 Software version update.....	19
5.8.3 Chinese graphical operation interface.....	19
5.8.4 Service list.....	19
5.8.5 Status bar	20
5.8.6 User parameter settings and storage	20
5.8.7 Power failure memory	20
5.8.8 Restore factory settings	21
5.8.9 Real time clock	21
6 Video and audio system characteristics.....	21

6.1	Video system characteristics	21
6.1.1	General	21
6.1.2	Fast acquisition.....	21
6.1.3	Still images.....	21
6.1.4	Baseband video input format	21
6.2	Audio system characteristics	22
7	RF part and channel decoder	22
7.1	RF port	22
7.1.1	RF input port.....	22
7.1.2	RF loop output port	22
7.2	Performance	23
7.2.1	Failure point criteria	23
7.2.2	Carrier to noise ratio threshold	23
7.2.3	Minimum signal input levels.....	23
7.2.4	Maximum signal input level	23
7.2.5	Immunity to analogue signals in an adjacent channel	23
7.2.6	Immunity to co-channel analogue signals.....	24
7.2.7	Immunity to digital signals in an adjacent channel.....	24
7.2.8	Immunity to co-channel digital signals	25
7.2.9	Resistance to 0 dB echo.....	25
7.2.10	Resistance to dynamic multipath channel	26
7.2.11	Resistance to pulse noise interference	26
8	Test method	26
8.1	RF demodulation and channel decoding.....	26
8.1.1	General	26
8.1.2	Frequency range.....	27
8.1.3	Frequency acquisition range.....	27
8.1.4	Program search and tuning	27
8.1.5	Return loss of RF input port.....	28
8.1.6	C/N threshold of Gaussian	29
8.1.7	Signal input level range.....	29
8.1.8	Immunity to analogue signals in adjacent channels	30
8.1.9	Immunity to analogue signals in a co-channel	30
8.1.10	Immunity to digital signals in adjacent channels	31
8.1.11	Immunity to digital signals in a co-channel.....	31
8.1.12	Resistance to 0 dB echo.....	32
8.1.13	Resistance to a dynamic multipath channel.....	32
8.1.14	Resistance to pulse noise interference	33
8.2	Demultiplex characteristics.....	33
8.2.1	TS data rate.....	33
8.2.2	STC recovery.....	34
8.2.3	Error control.....	34
8.2.4	PID filters	35
8.2.5	Multi-component programs processing.....	35
8.3	Transport stream decoding.....	35
8.3.1	Service and program information	35
8.3.2	EPG	36
8.3.3	Presentation of text.....	36
8.4	Power endurance	36

8.4.1	Power voltage endurance	36
8.4.2	Power frequency endurance	37
Annex A (normative)	Acceptable error free	38
Annex B (normative)	Multipath channel models	39
B.1	Rayleigh channel model	39
B.2	Rice channel model	39
B.3	Dynamic multipath channel model	40
Annex C (informative)	Guide to the implementing of a DRA audio decoder in a DTMB receiver	41
C.1	General	41
C.2	Outline, terms and definitions	41
C.2.1	Outline	41
C.2.2	Terms and definitions	43
C.3	DRA syntax structure	45
C.3.1	General	45
C.3.2	DRA bit stream	45
C.3.3	Frame	45
C.3.4	Frame header	46
C.4	Semantic	47
C.4.1	General	47
C.4.2	Bit stream	47
C.4.3	Frame	47
C.4.4	Frame header	48
C.4.5	Unpacking window sequence bits	52
C.4.6	Unpacking Huffman code book selection and application range bits	54
C.4.7	Unpacking quantization index bits of subband samples	54
C.4.8	Unpacking quantization stepsize index bits	54
C.4.9	Unpacking sum/difference coding decision bits	54
C.4.10	Unpacking joint intensity coding scale factor bits	55
C.4.11	Unpacking padding bits	55
C.4.12	Unpacking auxiliary data	55
C.5	Decoding	55
C.5.1	Channel arranging and configuration	55
C.5.2	Downmixing	57
C.5.3	De-interleaving	58
C.5.4	Reconstruction of the number of quantification units	59
C.5.5	Dequantizer	59
C.5.6	Joint intensity decoding	60
C.5.7	Sum/difference decoding	60
C.5.8	Variable resolution synthesis filter bank	60
C.5.9	Reconstruction of the short/brief window function sequence	63
Bibliography	64
Figure 1	– Diagram of DTMB transmitter processing	12
Figure 2	– Diagram of DTMB receiver processing	13
Figure 3	– Test set-up for frequency range	27
Figure 4	– Test set-up for program search and tuning	28
Figure 5	– Test set-up for return loss	29

Figure 6 – Test set-up for C/N threshold of Gaussian.....	29
Figure 7 – Test set-up for signal input level range	29
Figure 8 – Test set-up for immunity to analogue signals in adjacent channels	30
Figure 9 – Test set-up for immunity to digital signals in adjacent channels	31
Figure 10 – Test set-up for resistance to 0 dB echo	32
Figure 11 – Test set-up for immunity to pulse noise interference	33
Figure 12 – Test set-up for TS data rate	33
Figure 13 – Test set-up for STC recovery	34
Figure 14 – Test set-up for power voltage and frequency endurance	36
Figure C.1 – Decoder.....	42
Table 1 – Power supply requirements.....	13
Table 2 – Requirements of interface.....	14
Table 3 – Required working modes	14
Table 4 – Requirements of EPG supporting	18
Table 5 – Supporting functions.....	19
Table 6 – Video parameters	21
Table 7 – Video format.....	22
Table 8 – C/N for reference AEF	23
Table 9 – Minimum received signal level	23
Table 10 – Immunity to analogue signals in a $N - 1$ adjacent channel	24
Table 11 – Immunity to analogue signals in a $N + 1$ adjacent channel	24
Table 12 – Immunity to co-channel analogue signals	24
Table 13 – Immunity to digital signals in an adjacent channel	25
Table 14 – Immunity to co-channel digital signals	25
Table 15 – Requirements of delay to 0 dB echo.....	25
Table 16 – Requirements of C/N thresholds to 30 μ s echo	26
Table 17 – Resistance to dynamic multipath channel	26
Table 18 – Requirements of pulse noise interference length	26
Table B.1 – Rayleigh channel model (static).....	39
Table B.2 – Rice channel model (static)	40
Table B.3 – Dynamic multipath channel model.....	40
Table C.1 – Frame structure.....	47
Table C.2 – Data structure of a normal channel.....	48
Table C.3 – Data structure of LFE channel	48
Table C.4 – Frame header type.....	49
Table C.5 – Difference between two types of frame headers	49
Table C.6 – Number of bits used for decoding the length of audio data frame.....	49
Table C.7 – Sampling frequency supported by this annex	50
Table C.8 – Number of bits used for decoding the number of normal channels	50
Table C.9 – Number of bits used for decoding the number of LFE channels	51
Table C.10 – Channel configuration auxiliary information decision	51
Table C.11 – Sum/difference coding decision	51

Table C.12 – Intensity joint coding decision	51
Table C.13 – Window function index.....	52
Table C.14 – Number of transient clusters	53
Table C.15 – Implicit length of a transient cluster of a stationary frame	53
Table C.16 – Starting location of the first transient cluster and the location where the first transient occurs	53
Table C.17 – Variables used to decode sum/difference coding decision	54
Table C.18 – All unused sum/difference coding decision.....	55
Table C.19 – Sum/difference coding decision	55
Table C.20 – Default normal channel configuration	56
Table C.21 –Presentation of a normal channel configuration	56
Table C.22 – Audio data arranging the order of each channel in the audio frame.....	56
Table C.23 – Arranging the order of audio data for 5.1 channel surround sound in the audio frame	57
Table C.24 – Subband samples arranged in a natural order	58
Table C.25 – Subband samples arranged in interleaving order.....	59
Table C.26 – Optional window function around the transient location	63

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**DIGITAL TERRESTRIAL TELEVISION RECEIVERS
FOR THE DTMB SYSTEM**
FOREWORD

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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*