INTERNATIONAL STANDARD

IEC 62330-2

First edition
2003-05

Helical-scan digital video cassette recording system using 12,65 mm (0,5 in) magnetic tape – Format HD-D5 –

Part 2: Compression format

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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HELICAL-SCAN DIGITAL VIDEO CASSETTE RECORDING SYSTEM USING 12,65 mm (0,5 in) MAGNETIC TAPE – FORMAT HD-D5 –

Part 2: Compression format

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FOREWORD

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International Standard IEC 62330-2 has been prepared by Technical Area 6: Higher data rate storage media and equipment of IEC technical committee 100: Audio, video and multimedia systems and equipment.

It was submitted to the national committees for voting under the Fast Track Procedure as the following documents:

CDV	Report on voting
100/505/CDV	100/604/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 2008. At this date, the publication will be

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- withdrawn;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

IEC 62330 consists of the following parts, under the general title *Helical-scan digital video cassette recording system using 12,65 mm (0,5 in) magnetic tape – Format HD-D5*.

Part 1: VTR specifications

Part 2: Compression format

Part 3: Data stream format

Part 1 describes the VTR specifications which are tape, magnetization, helical recording, modulation method and basic system data for high definition video compressed data on 29,97 or 59,94 frame rate.

This part 2 describes the specifications for encoding process and data format for 1080i and 720p systems.

Part 3 describes the specifications for transmission of HD-D5 compressed video and audio data stream over 360 Mb/s serial digital interface.

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1 Scope

This part of IEC 62330 defines the encoding process of the HD-D5 video compression and its data format for the 1 080/59,94i system (hereinafter referred to as the 1 080i system) and the 720/59,94p system (hereinafter referred to as the 720p system).

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.

ITU-R BT.1543, *1 280 × 720, 16 × 9 progressively-captured image format for production and international programme exchange in the 60 Hz*

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

3 Acronyms

BUF	Buffer memory
C	Colour difference signal
C3RMB	Compressed data of 3 RMBs
C(t, u)	The value of the DCT coefficient at frequency (t, u)
C_B/C_R	Colour difference signal
CC0 ~ CC2	Categories for C DCT block
Ccoef( )	C DCT CG
CG	Coefficient group
CGNR	CG number of one Y/C DCT coefficient block in one RMB
CGNS	CG number of one Y/C DCT coefficient block in one SMB
CN	C3RMB number in one RMBG
CRcoef( )	Rearranged C DCT CG
CS	C DCT block number in one SMB
CY0 ~ CY3	Categories for Y DCT block
DCT	Discrete cosine transform
DIF	Digital interface
DIF(n)	DIF block numbered n
DN	DIF block number
EOB	“End of block” code
EOM	“End of 3 RMBs” code