INTERNATIONAL STANDARD

IEC 62330-1

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

Part 1: VTR specifications

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 1: VTR specifications

FOREWORD

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International Standard IEC 62330-1 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
100/504/CDV	100/603/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- withdrawn;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

This 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.

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.

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

Part 1: VTR specifications

1 Scope

This part of IEC 62330 specifies the content, format, and recording method of the data blocks containing HD compressed video data defined in part 2, audio, and associated data which form the helical records on 12,65 mm (0,5 in) tape in cassettes as specified in IEC 61835.

In addition, this standard specifies the content, format, and recording method of the longitudinal record containing tracking information for the scanning head associated with the helical records, and also the longitudinal cue audio, and time and control code.

One video channel of HD compressed video data and four independent audio channels are recorded in the digital format. Each of these channels is designed to be capable of independent editing.

The HD compressed video data are derived from the following HD video signal:

- 1080 line / 59,94 Hz field frequency interlace system
- 720 line / 59,94 Hz frame frequency progressive system

Figure 1 and Figure 2 show block diagrams of the processes involved in the recorder.

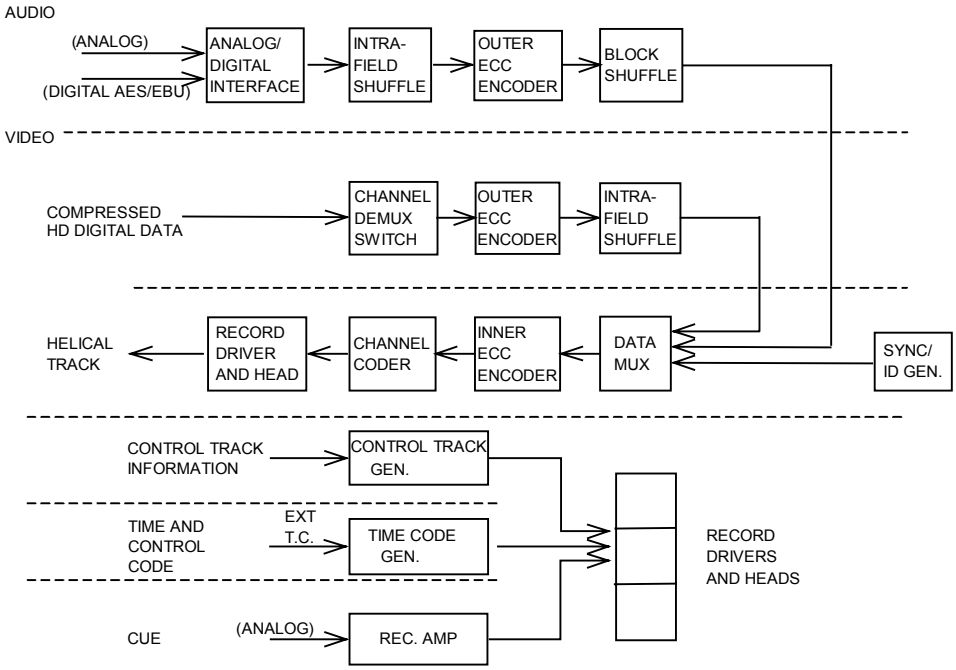


Figure 1 – Record block diagram

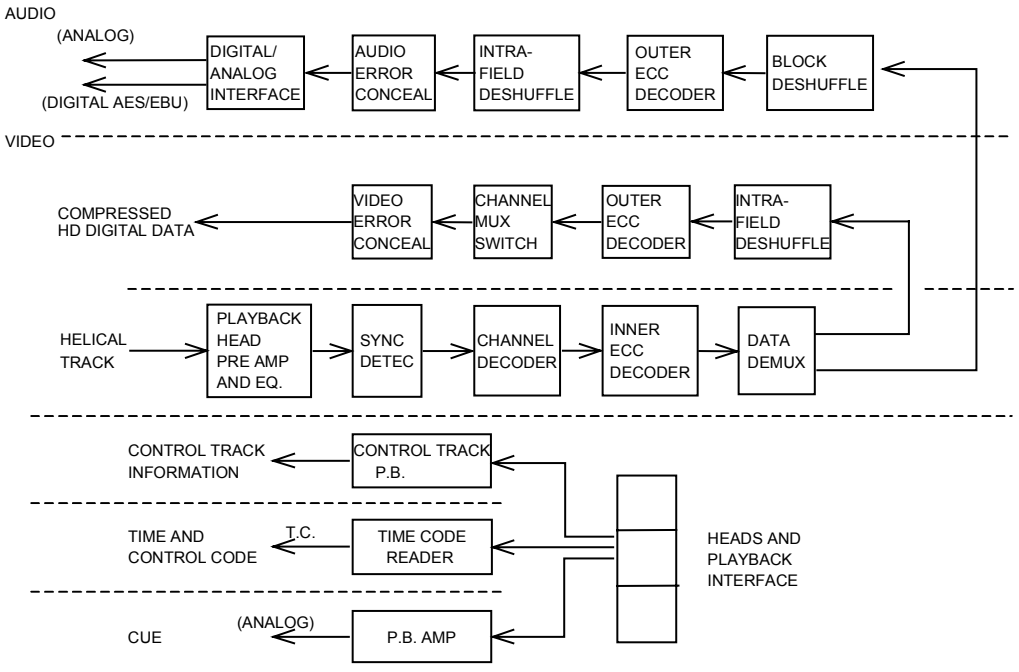


Figure 2 – Playback block diagram

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 60461:2001, *Time and control code for video tape recorders*

IEC 60958, *Digital audio interface*

IEC 61835, *Helical-scan digital component video cassette recording system using 12,65 mm (0,5 in) magnet tape – Format D-5*

ITU-R BS. 647 *A digital audio interface for broadcasting studios*

SMPTE RP 155:1995, *Audio levels and Indicators for Digital Audio Records on Digital Television Tape Recorders*