



# SLOVENSKI STANDARD

## SIST EN 62071-1:2007

01-januar-2007

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**Digitalni videokasetni snemalni sistem z zapisovanjem s poševnimi sledmi na magnetnem traku, širokem 6,35 mm, in komprimiranjem – Format D-7 – 1. del: VTR -specifikacije (IEC 62071-1:2005)**

Helical-scan compressed digital video cassette system using 6,35 mm magnetic tape - Format D-7 -- Part 1: VTR specifications (IEC 62071-1:2005)

iTeh STANDARD PREVIEW

Videokassetensystem mit komprimierter digitaler Schrägspuraufzeichnung auf Magnetband 6,35 mm - Format D-7 -- Teil 1: VTR-Festlegungen (IEC 62071-1:2005)

[SIST EN 62071-1:2007](https://standards.iteh.ai/catalog/standards/sist/3998e68f-86f1-48b9-a7c6-0c1891407aa/sist-en-62071-1-2007)

Systeme de magnéscope numérique a cassette a balayage hélicoidal a signal compressé utilisant une bande magnétique de 6,35 mm - Format D-7 -- Partie 1: Spécifications VTR (IEC 62071-1:2005)

**Ta slovenski standard je istoveten z: EN 62071-1:2006**

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**ICS:**

33.160.40      Video sistemi                                      Video systems

**SIST EN 62071-1:2007**                                      en,de

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 62071-1**

July 2006

ICS 33.160.40

English version

**Helical-scan compressed digital video cassette system  
using 6,35 mm magnetic tape -  
Format D-7  
Part 1: VTR specifications  
(IEC 62071-1:2005)**

Système de magnétoscope numérique à  
cassette à balayage hélicoïdal à  
signal compressé utilisant une bande  
magnétique de 6,35 mm -  
Format D-7  
Partie 1: Spécifications VTR  
(CEI 62071-1:2005)

Videokassettensystem mit komprimierter  
digitaler Schrägspuraufzeichnung auf  
Magnetband 6,35 mm -  
Format D-7  
Teil 1: VTR-Festlegungen  
(IEC 62071-1:2005)

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This European Standard was approved by CENELEC on 2006-06-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in two official versions (English and German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of the International Standard IEC 62071-1:2005, prepared by IEC TC 100, Audio, video and multimedia systems and equipment, was submitted to the formal vote and was approved by CENELEC as EN 62071-1 on 2006-06-01 without any modification.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2007-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2009-06-01

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## Endorsement notice

The text of the International Standard IEC 62071-1:2005 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60735	NOTE	Harmonized as EN 60735:1991 (not modified).
IEC 61834-1	NOTE	Harmonized as EN 61834-1:1998 (not modified).

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
AES3	2003	AES Recommended practice for digital audio engineering - Serial transmission format for two-channel linearly represented digital audio data	-	-
SMPTE 12M	1999	Television, audio and film - Time and control code	-	-
SMPTE 259M	1997	Television - 10-Bit 4:2:2 Component and 4fsc - Composite Digital Signals - Serial Digital Interface	-	-

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# INTERNATIONAL STANDARD

# IEC 62071-1

First edition  
2005-10

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## Helical-scan compressed digital video cassette system using 6,35 mm magnetic tape – Format D-7 –

### Part 1: VTR specifications

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International Electrotechnical Commission  
Международная Электротехническая Комиссия

PRICE CODE

**XD**

*For price, see current catalogue*

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## HELICAL-SCAN COMPRESSED DIGITAL VIDEO CASSETTE SYSTEM USING 6,35 mm MAGNETIC TAPE – FORMAT D-7 –

### Part 1: VTR specifications

#### FOREWORD

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International Standard IEC 62071-1 has been prepared by technical area 6: Higher data rate storage media, data structures and equipment of IEC technical committee 100: Audio, video and multimedia systems and equipment.

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

CDV	Report on voting
100/900/CDV	100/984/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.

IEC 62071 consists of the following parts, under the general title *Helical-scan compressed digital video cassette system using 6,35 mm magnetic tape – Format D-7*:

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 video compressed data.

Part 2 describes the specifications for encoding process and data format for 525i and 625i systems.

Part 3 describes the specifications for transmission of DV-based compressed video and audio data stream over 270 Mb/s and 360 Mb/s serial digital interface.

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.

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A bilingual version of this publication may be issued at a later date.

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# HELICAL-SCAN COMPRESSED DIGITAL VIDEO CASSETTE SYSTEM USING 6,35 mm MAGNETIC TAPE – FORMAT D-7 –

## Part 1: VTR specifications

### 1 Scope

This part of IEC 62071 specifies the content, format and recording method of the data blocks containing video, audio, and associated data which form the helical records on 6,35 mm tape contained in cassettes as specified in SMPTE 307M.

In addition, this standard specifies the content, format, and recording method for longitudinal cue and control tracks.

One video channel and two independent audio channels are recorded in the digital format for 25 Mb/s VTRs and one video channel and four independent audio channels for 50 Mb/s VTRs. Each of these channels is designed to be capable of independent editing.

The video channel records and reproduces a component television signal in the 525-line system with a frame frequency of 29,97 Hz (hereinafter referred to as the 525/60 system) and the 625-line system with a frame frequency of 25,00 Hz (hereinafter referred to as the 625/50 system).

Prior to recording, the digital signal is compressed to a DV-based 25 Mb/s bit stream with 4:1:1 sampling or a DV-based 50 Mb/s bit stream with 4:2:2 sampling.

The standard includes the process required to decode the DV-based 25 Mb/s bit stream and 50 Mb/s bit stream into output video, audio, and 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.

AES3:2003, *AES Recommended Practice for Digital Audio Engineering – Serial transmission format for two-channel linearly represented digital audio data*

SMPTE 12M: 1999, *Television, Audio and Film – Time and Control Code*

SMPTE 259M: 1997, *Television – 10-Bit 4:2:2 Component and 4fsc NTSC Composite Digital Signals – Serial Digital Interface*

### 3 Abbreviations and acronyms

AAUX	Audio auxiliary data
AP1	Audio application ID
AP2	Video application ID
AP3	Subcode application ID
APT	Track application ID

Arb	Arbitrary
AS	AAUX source pack
ASC	AAUX source control pack
B/W	Black and white flag
CGMS	Copy generation management system
DBN	DIF block number
DCT	Discrete cosine transform
DIF	Digital interface
DSF	DIF sequence flag
ECC	Error correction code
EFC	Emphasis channel flag
EOB	End of block
ID	Identification
IDP	ID parity
ITI	Insert and track information
LF	Locked mode flag
PF	Pilot frame
QNO	Quantization number
QU	Quantization
Res	Reserved for future use
SMP	Sampling frequency
SSA	Start sync area
SSYB	Subcode sync block number
STA	Status of the compressed macro block
Syb	Sync block number
TF	Transmitting flag
TIA	Track information area
Trp	Track pair number
VAUX	Video auxiliary data
VLC	Variable length coding
VS	VAUX source pack
VSC	VAUX source control pack
VSM	Vibrating sample magnetometer

## 4 Environment and test conditions

### 4.1 Environment

Tests and measurements made on the system to check the requirements of this standard shall be carried out under the following conditions:

- Temperature: 20 °C ± 1 °C
- Relative humidity: (50 ± 2) %
- Barometric pressure: from 86 kPa to 106 kPa
- Tape conditioning: not less than 24 h
- Centre tape tension: 0,09 N ± 0,02 N (see Annex A)