

**Digitalno video zapisovanje z video kompresijo 12,65 mm tipa D-9 formata komponent 525/60 in 625/50 (digitalni S) (IEC 62156:2001)**

**(istoveten EN 62156:2001)**

Digital video recording with video compression 12,65 mm type D-9 component format 525/60 and 625/50 (digital S) (IEC 62156:2001)

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EUROPEAN STANDARD

**EN 62156**

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2001

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English version

**Digital video recording with video compression 12,65 mm  
type D-9 component format 525/60 and 625/50 (digital S)  
(IEC 62156:2001)**

Enregistrement vidéo numérique  
avec compression vidéo  
sur bandes de 12,65 mm format  
à composante 525/60 et 625/50  
(numérique S) type D-9  
(CEI 62156:2001)

Digitale Videoaufzeichnung  
mit Videokompression 12,65 mm  
D-9-Komponentenformat  
525-60 und 625-50 (Digital-S)  
(IEC 62156:2001)

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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.

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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 document 100/394/FDIS, future edition 1 of IEC 62156, prepared by IEC TC 100, Audio, video and multimedia systems and equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62156 on 2001-12-01.

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) 2002-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2004-12-01

Annexes designated "normative" are part of the body of the standard.

In this standard, annex ZA is normative.

Annex ZA has been added by CENELEC.

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**Endorsement notice**

The text of the International Standard IEC 62156:2001 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60735      NOTE      Harmonized as EN 60735:1991 (not modified).

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## Annex ZA (normative)

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

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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>
ITU-R BT.470-6	- <sup>1)</sup>	Conventional television systems	-	-
ITU-R BT.601-5	- <sup>1)</sup>	Studio encoding parameters of digital television for standard 4:3 and wide-screen 16:9 aspect ratios	-	-
SMPTE 12M	1999	Television, audio and film - Time and control code	-	-

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1) Undated reference.

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**NORME  
INTERNATIONALE  
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STANDARD**

**CEI  
IEC  
62156**

Première édition  
First edition  
2001-10

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**Enregistrement vidéo numérique avec  
compression vidéo sur bandes de 12,65 mm  
format à composante 525/60 et 625/50  
(numérique S) type D-9**

**iTeh STANDARD PREVIEW**  
**Digital video recording with video compression**  
**12,65 mm type D-9 component format 525/60 and**  
**625/50 (digital S)**

<https://standards.iteh.ai/catalog/standards/sist/e9a10adc-6bcc-43cb-aa0fc2054cf99bf3/sist-en-62156-2007>

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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*Pour prix, voir catalogue en vigueur  
For price, see current catalogue*

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**DIGITAL VIDEO RECORDING WITH VIDEO COMPRESSION  
12,65 mm TYPE D-9 COMPONENT FORMAT  
525/60 AND 625/50 (DIGITAL S)**

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62156 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

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

FDIS	Report on voting
100/394/FDIS	100/425/RVD

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 3.

The committee has decided that the contents of this publication will remain unchanged until 2005. At this date, the publication will be

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

**DIGITAL VIDEO RECORDING WITH VIDEO COMPRESSION  
12,65 mm TYPE D-9 COMPONENT FORMAT  
525/60 AND 625/50 (DIGITAL S)**

## 1 Scope

Intraframe bit rate reduction is applied to video data prior to recording.

This International Standard specifies the content, format and recording method of the data blocks containing video, audio, and associated data that form the helical records on 12,65 mm tape in cassettes.

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

One video channel and four independent audio channels are recorded in the digital format. Each of these channels is 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 in the 625 line system with a frame frequency of 25,00 Hz (hereinafter referred to as the “625/50 system”).

## 2 Normative references

[SIST EN 62156:2007](#)

<http://standards.iteh.ai/catalog/standards/sist/e9a10adc-6bcc-43cb-aa0fc2054cf99bf3/sist-en-62156-2007>

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

ITU-R BT.470-6, *Conventional television systems*

ITU-R BT.601-5, *Studio encoding parameters of digital television for standard 4:3 and wide-screen 16:9 aspect ratios*

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

### 3 Abbreviations

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
FSC:	DIF block set number <i>(standards.iteh.ai)</i>
IDP:	ID parity
ITI:	Initial track information <a href="https://standards.iteh.ai/catalog/standards/sist/e9a10adc-6bcc-43cb-aa0f-54cf99bf3/sist-en-62156-2007">SIST EN 62156:2007 https://standards.iteh.ai/catalog/standards/sist/e9a10adc-6bcc-43cb-aa0f-54cf99bf3/sist-en-62156-2007</a>
LF:	Locked mode flag
MUB:	Main users binary group pack
OM:	Overwrite margin
QNO:	Quantization number
QU:	Quantization
Res:	Reserved for future use. Default value shall be set to “1”
SMP:	Sampling frequency
SSA:	Start sync area
SSYB:	Subcode sync block number
STA:	Status of the compressed macro block
STC:	Sub time code pack
SUB:	Sub users binary group pack
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 magnetometre