SLOVENSKI STANDARD
SIST EN 61834-6:2005

01-januar-2005

Snemanje - Digitalni videokasetni snemalni sistem z zapisovanjem s poševnimi sledmi na magnetnem traku, širokem 6,35 mm, za splošno uporabo (sistemi 525-60, 625-50, 1125-60 in 1250-50) – 6. del: Format SDL (IEC 61834-6:2000)

Recording - Helical-scan digital video cassette recording system using 6,35 mm magnetic tape for consumer use (525-60, 625-50, 1125-60 and 1250-50 systems) -- Part 6: SDL format

Aufzeichnung - Videokassettensystem mit digitaler Schrägspuraufzeichnung auf Magnetband 6,35 mm für den Heimgebrauch (Systeme 525-60, 625-50, 1125-60 und 1250-50) -- Teil 6: SDL-Format

Enregistrement - Systèmes de magnétoscopes numériques à cassette à balayage hélicoïdal sur bande magnétique de 6,35 mm, pour usage grand public (systèmes 525-60, 625-50, 1125-60 et 1250-50) -- Partie 6: Format SDL

Ta slovenski standard je istoveten z: **EN 61834-6:2000**

ICS:

33.160.40 Video sistemi Video systems

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EUROPEAN STANDARD

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English version

Recording - Helical-scan digital video cassette recording system using 6,35 mm magnetic tape for consumer use (525-60, 625-50, 1125-60 and 1250-50 systems) Part 6: SDL format

(IEC 61834-6:2000)

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This European Standard was approved by CENELEC on 2000-09-01. 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 three official versions (English, French, 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 document 100B/263/FDIS, future edition 1 of IEC 61834-6, prepared by SC 100B, Audio, video and multimedia information storage systems, of 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 61834-6 on 2000-09-01.

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) 2001-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2003-09-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annexes A, B and ZA are normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61834-6:2000 was approved by CENELEC as a European Standard without any modification.

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.

Publication	Year	Title	EN/HD	Year
IEC 61834-1	1998	Recording - Helical-scan digital video cassette recording system using 6,35 mm magnetic tape for consumer use (525-60, 625-50, 1125-60 and 1250-50 systems) Part 1: General specifications	EN 61834-1	1998
A1	[1)]		-	-
IEC 61834-2	1998	Part 2: SD format for 525-60 and 625-50 systems	EN 61834-2	1998
IEC 61834-3	1999	Part 3: HD format for 1125-60 and 1250-50 systems	EN 61834-3	2000
IEC 61883-1	1998	Consumer audio/video equipment - Digital interface Part 1: General	EN 61883-1	1998
IEC 61883-5	1998	Part 5: SDL-DVCR data transmission	EN 61883-5	1998
ITU-R Recommendation 601-2		Encoding parameters of digital television for studios	-	-
ITU-R Report 624-4	1990	Characteristics of television systems	-	-

1) To be published

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Enregistrement –

Systèmes de magnétoscopes numériques à cassette à balayage hélicoïdal sur bande magnétique de 6,35 mm, pour usage grand public (systèmes 525-60, 625-50, 1125-60 et 1250-50) –

Partie 6: Format SDL

Recording –

Helical-scan digital video cassette recording system using 6,35 mm magnetic tape for consumer use (525-60, 625-50, 1125-60 and 1250-50 systems) –

Part 6: SDL format

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RECORDING –

HELICAL-SCAN DIGITAL VIDEO CASSETTE RECORDING SYSTEM USING 6,35 mm MAGNETIC TAPE FOR CONSUMER USE (525-60, 625-50, 1125-60 and 1250-50 systems) –

Part 6: SDL format

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 61834-6 has been prepared by subcommittee 100B: Audio, video and multimedia information storage systems, of 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
100B/263/FDIS	100B/273/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.

IEC 61834 consists of the following parts, under the general title: *Recording – Helical-scan digital video cassette recording system using 6,35 mm magnetic tape for consumer use (525-60, 625-50, 1125-60 and 1250-50 systems)*

Part 1: General specifications;
Part 2: SD format for 525-60 and 625-50 systems;
Part 3: HD format for 1125-60 and 1250-50 systems;
Part 4: The pack header table and contents;
Part 5: The character information system;
Part 6: SDL format;
Part 7: EDTV2 format;
Part 8: PALplus format for 625-50 system;
Part 9: DVB format;
Part 10: DTV format.

This part 6 describes the specifications for an extended application of the SD format involving the coding and recording of the SDL format.

Part 1 describes specifications which are common to all versions of the helical-scan digital video cassette recording system, including: cassettes, helical recording method, modulation method, magnetization and basic system data.

Part 2 describes specifications for 525-60 and 625-50 systems not included in part 1.

Part 3 describes specifications for 1125-60 and 1250-50 systems not included in parts 1 and 2.

Part 4 describes the pack header table and the contents of packs which are applicable to all versions of the helical-scan digital video cassette system.

Part 5 describes the character information system which is applicable to all versions of the helical-scan digital video cassette system.

Part 7 describes the specifications for an extended implementation of the SD format capable of recording an EDTV2 signal.

Part 8 describes the specifications for an extended implementation of the SD format capable of recording a PALplus TV signal.

Part 9 describes the specifications for an extended implementation of the SD format capable of coding and recording a DVB bit stream.

Part 10 describes the specifications for an extended implementation of the SD format capable of coding and recording a DTV bit stream.

Those interested in the manufacture of SDL format digital video cassette recording systems, are advised to refer to parts 1, 2, 3, 4, 5, and 6.

Annexes A and B form an integral part of this standard.

The committee has decided that the contents of this publication will remain unchanged until 2008-08. At this date, the publication will be

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

RECORDING –

HELICAL-SCAN DIGITAL VIDEO CASSETTE RECORDING SYSTEM USING 6,35 mm MAGNETIC TAPE FOR CONSUMER USE (525-60, 625-50, 1125-60 and 1250-50 systems) –

Part 6: SDL format

1 General

1.1 Scope

This part of IEC 61834 describes the format extension, using higher compression to increase recording time and reduce running cost.

While all DVCRs must have the capability of recording and/or playback in SD (SP) mode, this extension is optional.

For this part of IEC 61834, the track data structure is defined by APT = 000b which consists of four areas as described in IEC 61834-1, 4.3.2 and AP1 = AP2 = AP3 = 000b. The data structure of MIC is as clause 10 in IEC 61834-2.

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61834. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 61834 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.

IEC 61834-1:1998, *Recording – Helical-scan digital video cassette recording system using 6,35 mm magnetic tape for consumer use (525-60, 625-50, 1125-60 and 1250-50 systems) – Part 1: General specifications*
Amendment 1 [1)]

IEC 61834-2:1998, *Recording – Helical-scan digital video cassette recording system using 6,35 mm magnetic tape for consumer use (525-60, 625-50, 1125-60 and 1250-50 systems) – Part 2: SD format for 525-60 and 625-50 systems*

IEC 61834-3, *Recording – Helical-scan digital video cassette recording system using 6,35 mm magnetic tape for consumer use (525-60, 625-50, 1125-60 and 1250-50 systems) – Part 3: HD format for 1125-60 and 1250-50 systems*

IEC 61883-1:1998, *Consumer audio/video equipment – Digital interface – Part 1: General*

IEC 61883-5:1998, *Consumer audio/video equipment – Digital interface – Part 5: SDL-DVCR data transmission*

ITU-R Recommendation 601-2, *Encoding parameters of digital television for studios*

ITU-R Report 624-4, *Characteristics of television systems*

[1)] To be published.

1.3 Definitions, symbols and abbreviations

For the purpose of this part of IEC 61834, the following definitions or abbreviations apply.

AAUX:	Audio auxiliary data
BCH code:	Bose-Chaudhuri-Hocquenghem code, one of the well-known error correction codes
CGMS:	Copy generation management system
DCT:	Discrete cosine transform
EOB:	End of block
MIC:	Memory in cassette
NABTS:	North American broadcasting teletext specifications
OETM events:	Optional events except text and maker's optional events
TOC:	Table of contents
VAUX:	Video auxiliary data
VLC:	Variable length coding

1.4 Environment and test conditions

Same as IEC 61834-2.

2 Helical recordings

2.1 Tape speed

The tape speed is 9,424/1,001 mm/s (525-60 system) or 9,424 mm/s (625-50 system).

The tape speed tolerance is ±0,5 %.

2.2 Record location and dimensions

Record location and dimensions for continuous recording shall be as specified in figure 1 of IEC 61834-2. The values are listed in table 1. For recording, helical tracks shall be contained within the tolerance specified in table 1.

Each sector location from the start of the SSA shall be as specified in figure 2 of IEC 61834-2 and table 2 (525-60 system) or table 3 (625-50 system). The physical tape pattern shall be specified by the centre line of each track.

The effective area upper edge, record and playback guarantee, overwrite margin (OM) and switching margin for recording amplifiers are as in IEC 61834-2.

2.2.1 Scanner example

Scanner dimensions in table 4 are one possible configuration. Other mechanical configurations are permitted, provided the same footprint of recorded information is produced on tape.

3 Programme track data arrangement

3.1 Introduction

Each television frame is recorded on 5 tracks for the 525-60 system and 6 tracks for the 625-50 system.

The helical tracks are recorded with video, audio and system data as for the SD format in IEC 61834-2. The arrangement of a track is as shown in IEC 61834-2 for each system.

Each track is numbered from the beginning track of the television frame in order. A track which has track number i (i = 0 to 4 for the 525-60 system or i = 0 to 5 for the 625-50 system) is referred to as track i.

The pilot frame is performed over two television frame periods for both systems. Placement of F0, F1 and F2 tracks is shown in figure 1 for the 525-60 system, and figure 2 for the 625-50 system. In the 525-60 system, pilot frame 0 and pilot frame 1 alternate with each other. In the 625-50 system, pilot frame 0 repeats.

3.2 Labelling convention

Same as IEC 61834-2.

3.3 Audio sector

As IEC 61834-2 except for track pair number. The track pairs for two fields are numbered sequentially as shown in tables 5 and 6.

3.4 Video sector

As IEC 61834-2 except for track pair number. The track pairs for two fields are numbered sequentially as shown in tables 5 and 6.

3.5 Subcode sector

Same as IEC 61834-2.

4 Audio interface

Same as IEC 61834-2.

5 Video interface

Same as IEC 61834-2.

6 Audio signal processing

6.1 Introduction

The audio signal is recorded in one audio block. The audio block is composed of five audio sectors in five consecutive tracks for the 525-60 system, or six audio sectors in six consecutive tracks for the 625-50 system. Audio signal processing in the audio block is as in IEC 61834-2.