

# SLOVENSKI STANDARD

## SIST EN 61834-1:2003/A1:2003

01-december-2003

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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, 1250-50 systems) - Part 1: General specifications (IEC 61834-1:1988/A1:2000)**

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 1: General specifications

Aufzeichnungstechnik - Videokassettensystem mit digitaler Schrägspuraufzeichnung auf Magnetband 6,35 mm für den Heimgebrauch (Systeme 525-60, 625-50, 1125-60, 1250-50) -- Teil 1: Allgemeine Festlegungen

[SIST EN 61834-1:2003/A1:2003](https://standards.iteh.ai/catalog/standards/sist/ac47fc3a-bf8b-4bc3-8beb-30a912420000/iec-61834-1-1988-a1-2000)

Enregistrement - Système de magnétoscope numérique à cassette à balayage hélicoïdal utilisant la bande magnétique de 6,35 mm, destiné au grand public (Systèmes 525-60, 625-50, 1125-60 et 1250-50) -- Partie 1: Spécifications générales

**Ta slovenski standard je istoveten z: EN 61834-1:1998/A1:2001**

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**ICS:**

33.160.40      Video sistemi                      Video systems

**SIST EN 61834-1:2003/A1:2003                      en**

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EUROPEAN STANDARD

**EN 61834-1/A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2001

ICS 33.160.40

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 1: General specifications  
(IEC 61834-1:1998/A1:2001)**

Enregistrement –  
Système de magnétoscope numérique  
à cassette à balayage hélicoïdal utilisant  
la bande magnétique de 6,35 mm,  
destiné au grand public (Systèmes  
525-60, 625-50, 1125-60 et 1250-50)  
Partie 1: Spécifications générales  
(CEI 61834-1:1998/A1:2001)

Aufzeichnungstechnik -  
Videokassettensystem mit digitaler  
Schrägspuraufzeichnung auf Magnetband  
6,35 mm für den Heimgebrauch (Systeme  
525-60, 625-50, 1125-60, 1250-50)  
Teil 1: Allgemeine Festlegungen  
(IEC 61834-1:1998/A1:2001)

[SIST EN 61834-1:2003/A1:2003](https://standards.iteh.ai/catalog/standards/sist/ac47fc3a-bf8b-4bc3-8beb-62d96e2f2ac7/sist-en-61834-1-2003-a1-2003)

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[62d96e2f2ac7/sist-en-61834-1-2003-a1-2003](https://standards.iteh.ai/catalog/standards/sist/ac47fc3a-bf8b-4bc3-8beb-62d96e2f2ac7/sist-en-61834-1-2003-a1-2003)

This amendment A1 modifies the European Standard EN 61834-1:1998; it was approved by CENELEC on 2001-05-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

# 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/285/FDIS, future amendment 1 to IEC 61834-1:1998, 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 amendment A1 to EN 61834-1:1998 on 2001-05-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2002-02-01
- latest date by which the national standards conflicting  
with the amendment have to be withdrawn (dow) 2004-05-01

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## Endorsement notice

The text of amendment 1:2001 to the International Standard IEC 61834-1:1998 was approved by CENELEC as an amendment to the European Standard without any modification.

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**NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD**

**CEI  
IEC**

**61834-1**

1998

AMENDEMENT 1  
AMENDMENT 1  
2001-03

Amendement 1

**Enregistrement – Système de magnétoscope numérique à cassette à balayage hélicoïdal utilisant la bande magnétique de 6,35 mm, destiné au grand public (systèmes 525-60, 625-50, 1125-60 et 1250-50) –**

**STANDARD PREVIEW**

**Partie 1:  
Spécifications générales**

[SIST EN 61834-1:2003/A1:2003](https://standards.iteh.ai/catalog/standards/sist/ac47fc3a-bf8b-4bc3-8beb-61834-1-2003-a1-2003)

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**Amendment 1**

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

**Part 1:  
General specifications**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

CODE PRIX  
PRICE CODE

**E**

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

## FOREWORD

This amendment 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 amendment is based on the following documents:

FDIS	Report on voting
100B/285/FDIS	100B/291/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

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

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

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https://standards.iteh.ai/catalog/standards/sist/ac47fc3a-bf8b-4bc3-8beb-62d96e2f2ac7/sist-en-61834-1-2003-a1-2003](https://standards.iteh.ai/catalog/standards/sist/ac47fc3a-bf8b-4bc3-8beb-62d96e2f2ac7/sist-en-61834-1-2003-a1-2003)

Add the following annex A:

### **Annex A** (normative)

#### **LP mode (long play mode with narrow track pitch)**

This annex is concerned with the LP mode option for SD use of consumer-digital VCRs.

The purpose of the LP format extension is to offer long recording times and reduce running costs by narrow track pitch (LP mode). While all DVCRs shall have the capability of recording and/or playback in SP mode, the ability to record and playback in LP mode shall be optional.

#### **A.1 Tape speed**

The tape speed for LP mode is 12,568/1,001 mm/s (525-60 system) or 12,568 mm/s (625-50 system).

The tape speed tolerance is  $\pm 0,5$  %.

## A.2 Record location and dimensions

The footprint on tape for continuous recording shall be as specified in figure 23. The dimensions are listed in table A.1. For recording, helical tracks shall be recorded within the tolerances specified in table A.1. Each sector location from start of the SSA shall be as specified in figure 2 in IEC 61834-2 and table A.3 (525-60 system) or table A.4 (625-50 system). The physical tape pattern shall be specified by the centre line of each track.

The ITI sector location from start of the SSA shall be as specified in figure 24 and in table A.2. For recording successive tracks, the lag between each pair of successive tracks at the beginning of the SSA shall be specified in figure A.1.

## A.3 Absolute track numbering

For LP mode, the absolute track numbering shall be as shown in figure A.2. Note that for even numbered tracks, the same track number shall be assigned to two consecutive physical tracks, whereas for odd numbers the number shall be assigned to one track only.

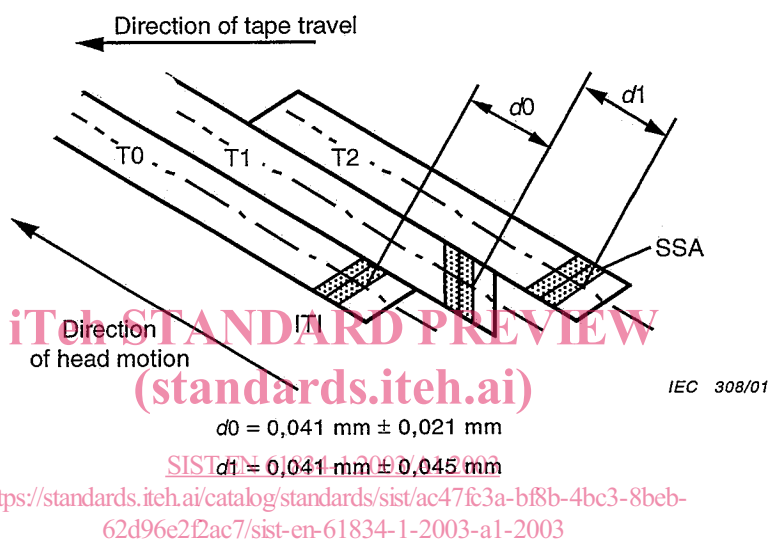
Table A. 1 – Record location and dimensions

Dimensions	Nominal	Tolerance
$T_p$ Track pitch	6,67 $\mu\text{m}$	Reference
$T_s$ Tape speed	$A^a$	$\pm 0,5\%$
$\theta_r$ Track angle	9,1612°	Reference
$L_r$ Effective track length	32,910 mm	$\pm 0,122$ mm
$W_t$ Tape width	6,350 mm	$\pm 0,005$ mm
$H_e$ Effective area lower edge	0,560 mm	$\pm 0,025$ mm
$H_o$ Effective area upper edge	5,800 mm	$\pm 0,045$ mm
$W_e$ Effective area width	5,240 mm	Derived
$H_1$ Optional track 1 upper edge	0,490 mm	Maximum
$H_2$ Optional track 2 lower edge	5,920 mm	Minimum
$\alpha_0$ Azimuth angle (T0)	-20°	$\pm 0,15^\circ$
$\alpha_1$ Azimuth angle (T1)	+20°	$\pm 0,15^\circ$
<sup>a</sup> where $A = 12,568 / 1,001$ mm/s for 525-60 system; where $A = 12,568$ mm/s for 625-50 system.		
NOTE 1 Tolerances should be satisfied under all guaranteed operating conditions of the recorder. These tolerances should be measured in the tape's standard environment.		
NOTE 2 This table shows the values for recording the standard video signal.		

Table A.2 – ITI sector location with respect to SSA

Dimensions		Nominal	Tolerance
$Hx$	Length of ITI preamble	0,341 mm	Derived
$X0$	Beginning of SSA	0 mm	—
$M1$	Length of ITI sector	$B^a$	Derived

<sup>a</sup> where  $B = 0,878$  mm for 525-60 system;  
where  $B = 0,879$  mm for 625-50 system.



- NOTE 1  $d0$ : Lag between  $T(2n)$  and  $T(2n + 1)$  at the starting line of the SSA  
 $d1$ : Lag between  $T(2n + 1)$  and  $T(2n + 2)$  at the starting line of the SSA  
where  $n = 0, 1, 2$
- NOTE 2  $T0, T1, T2$  and  $T( )$  are track numbers.
- NOTE 3 Tracks are viewed on magnetic coating side.

Figure A.1 – Lag between each pair of successive tracks at the beginning of the SSA

Table A.3 – Sector location from SSA (525-60 system)

Dimensions in millimetres			
Dimensions		Nominal	Tolerance
$Hx$	Length of ITI preamble	0.341	Derived
$X0$	Beginning of SSA	0	—
$X1$	Beginning of audio sync blocks	0.811	Derived
$X2$	Beginning of video sync blocks	3.797	Derived
$X3$	Beginning of subcode sync blocks	31.951	Derived
$M1$	Length of ITI sector	0.878	Derived
$M2$	Length of audio sector	2.816	Derived
$M3$	Length of video sector	27.605	Derived
$M4$	Length of subcode sector	0.908	Derived
$Em$	Length of overwrite margin	0.305	Derived



Table A.4 – Sector location from SSA (625-50 system)

Dimensions in millimetres			
Dimensions		Nominal	Tolerance
<i>Hx</i>	Length of ITI preamble	0,342	Derived
<i>X0</i>	Beginning of SSA	0	—
<i>X1</i>	Beginning of audio sync blocks	0,811	Derived
<i>X2</i>	Beginning of video sync blocks	3,801	Derived
<i>X3</i>	Beginning of subcode sync blocks	31,983	Derived
<i>M1</i>	Length of ITI sector	0,879	Derived
<i>M2</i>	Length of audio sector	2,819	Derived
<i>M3</i>	Length of video sector	27,633	Derived
<i>M4</i>	Length of subcode sector	0,879	Derived
<i>Em</i>	Length of overwrite margin	0,305	Derived

LP mode

0	0	1	2	2	3	4	4	5	6	6	7	8	8	9	10	10	11	12	12	13	14	14	15	16	16	17	18	18	19	20	20	21	22	22	23	24	24	25	26	26	27
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IEC 309/01

Figure A.2 – Absolute track numbering for LP mode

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