

# INTERNATIONAL STANDARD

# IEC 61834-4

First edition  
1998-07

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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 4:  
Pack header table and contents  
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*Enregistrement* IEC 61834-4:1998

*Système d'enregistrement grand public vidéo à cassette  
à défilement hélicoïdal pour bande magnétique de 6,35 mm  
(systèmes 525-60, 625-50, 1125-60 et 1250-50)*

*Partie 4:*

*Tableaux des paquets en-tête et leur contenu*



Reference number  
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\* See web site address on title page.

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### Part 4: Pack header table and contents (standards.iteh.ai)

*Enregistrement* IEC 61834-4:1998

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*Partie 4:*

*Tableaux des paquets en-tête et leur contenu*

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**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 4: Pack header table and contents**

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 reports or guides and they are accepted by the National Committees in that sense.
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International Standard IEC 61834-4 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/164/FDIS	100B/174/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.



IEC 61834 consists of the following parts:

- 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: Pack header table and contents;
- Part 5: Character information system.

This document is Part 4 of IEC 61834 and describes the pack header table and the contents of packs which are applicable to the whole recording system of helical-scan digital video cassette.

Part 1 describes the common specifications for the helical-scan digital video cassette recording system using 6,35 mm magnetic tape.

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

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

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

For manufacturing SD digital video cassette recording system, Part 1, Part 2, Part 4 and Part 5 are referred to.

For manufacturing HD digital video cassette recording system, Part 1, Part 2, Part 3, Part 4 and Part 5 are referred to.

[IEC 61834-4:1998](#)

This part of IEC 61834 is to be referred to particularly when the pack header table and the contents are to be checked.

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

# 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 4: Pack header table and contents

### 1 General

#### 1.1 Scope

This part of IEC 61834 specifies the pack headers and the contents of packs which are applicable to the whole recording system of helical-scan digital video cassette using 6,35 mm magnetic tape.

#### 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 61880:1998, *Video systems (525/60) – Video and accompanied data using the vertical blanking interval – Analogue interface*

ISO/IEC 2022:1994, *Information technology – Character code structure and extension techniques* <sup>1)</sup>

ISO 3166:1993, *Codes for the representation of names of countries*

ISO 3901:1986, *Documentation – International Standard Recording Code (ISRC)*

EBU SPB 492:1992, *Teletext Specifications*

EIA 608:1993, *Recommended Practice for Line 21 Data Service*

ETS 300 294:1996, *Television systems; 625 line television Wide Screen Signalling (WSS)*

ITU-R Report 624-4:1990, *Characteristics of television systems*

ITU-R Recommendation BT653-2:1993, *Teletext systems*

#### 1.3 Labelling convention

Byte values are expressed in binary coded decimal notation unless otherwise noted.

An "h" subscript indicates hexadecimal value. A "b" subscript indicates binary value.

<sup>1)</sup> To be published.

## 2 Pack header table

Packs are divided into groups as follows.

CONTROL group	Packs in relation to VCR control
TITLE group	Packs in relation to Title
CHAPTER group	Packs in relation to Chapter
PART group	Packs in relation to Part
PROGRAMME group	Packs in relation to Programme
AAUX group	Packs in relation to AAUX
VAUX group	Packs in relation to VAUX
CAMERA group	Packs in relation to a camera
LINE group	Packs in relation to horizontal lines
SOFT MODE group	Packs in relation to maker's option and no information

The relationship between pack headers and groups is shown in table 1.

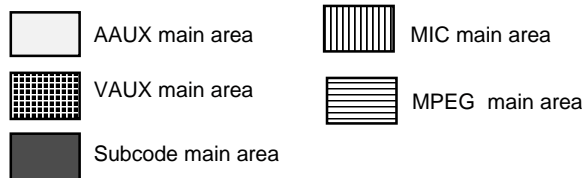
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Table 1 – Pack header table

UPPER LOWER	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010 to 1110	1111 SOFT MODE
	CONTROL	TITLE	CHAPTER	PART	PROGRAM	AAUX	VAUX	CAMERA	LINE	MPEG		
0000	CASSETTE ID	TOTAL TIME	TOTAL TIME	TOTAL TIME	TOTAL TIME	SOURCE	SOURCE	CONSUMER CAMERA 1	LINE HEADER	SOURCE	RSV	MAKER CODE
0001	TAPE LENGTH	REMAIN TIME	REMAIN TIME	REMAIN TIME	REMAIN TIME	SOURCE CONTROL	SOURCE CONTROL	CONSUMER CAMERA 2	Y	SOURCE CONTROL		OPTION
0010	TIMER ACT DATE	CHAPTER TOTAL NO.	CHAPTER NO.	PART NO.	REC DTIME	REC DATE	REC DATE	RSV	CR	REC DATE		OPTION
0011	TIMER ACT S/S	TIME CODE	TIME CODE	TIME CODE	TIME CODE	REC TIME	REC TIME	LENS	CB	REC TIME		OPTION
0100	PR START POINT	BINARY GROUP	BINARY GROUP	BINARY GROUP	BINARY GROUP	BINARY GROUP	BINARY GROUP	GAIN	RSV	BINARY GROUP		OPTION
0101	PR START POINT	CASSETTE NO.	RSV	RSV	RSV	CLOSED CAPTION	CLOSED CAPTION	PEDESTAL	RSV	STREAM		OPTION
0110	TAG ID NO. / GENRE	SOFT ID	RSV	RSV	RSV	TR	TR	GAMMA	RSV	RSV		OPTION
0111	TOPIC /PAGE HEADER	SOFT ID	RSV	RSV	RSV	RSV	TELE TEXT	DETAIL	RSV	RSV		OPTION
1000	TEXT HEADER	TEXT HEADER	TEXT HEADER	TEXT HEADER	TEXT HEADER	TEXT HEADER	TEXT HEADER	TEXT HEADER	TEXT HEADER	TEXT HEADER		OPTION
1001	TEXT	TEXT	TEXT	TEXT	TEXT	TEXT	TEXT	TEXT	TEXT	TEXT		OPTION
1010	TAG	TITLE START	CHAPTER START	PART START	PROGRAM START	AAUX START	VAUX START	RSV	LINE START	SERVICE START		OPTION
1011	TAG	TITLE START	CHAPTER START	PART START	PROGRAM START	AAUX START	VAUX START	CAMERA PRESET	LINE START	SERVICE START		OPTION
1100	TELETEXT INFO	REEL ID	RSV	RSV	RSV	RSV	MARINE/ MOUNTAIN	FLARE	RSV	RSV		OPTION
1101	KEY	REEL ID	RSV	RSV	RSV	RSV	LONGITUDE /LATITUDE	SHADING	RSV	RSV		OPTION
1110	ZONE END	TITLE END	CHAPTER END	PART END	PROGRAM END	AAUX END	VAUX END	KNEE	LINE END	SERVICE END		OPTION
1111	ZONE END	TITLE END	CHAPTER END	PART END	PROGRAM END	AAUX END	VAUX END	SHUTTER	LINE END	SERVICE END		NO INFO



### 3 CONTROL

CONTROL 0

#### 3.1 CASSETTE ID

	MSB				LSB			
PC 0	0	0	0	0	0	0	0	0
PC 1	ME	1	1	MULTI-BYTES			MEM TYPE	
PC 2	MEM SIZE of SPACE 0			MEM SIZE of the LAST BANK in SPACE 1				
PC 3	MEM BANK NO. of SPACE 1							
PC 4	UNITS of TAPE THICKNESS			1/10 of TAPE THICKNESS				

This pack shall be written in the MIC main area.

ME: MIC error

0 = All events in this MIC do not always exist on this tape

1 = All events in this MIC certainly exist on this tape

MULTI-BYTES: Maximum number of words to be written in one cycle of multi-writing operation

0 = 4 bytes

1 = 8 bytes

2 = 16 bytes

3 to 6 = Reserved

7 = Unlimited

Reserved value for MULTI-BYTES will be defined by the power of 2 bytes.

MEM TYPE: Memory type

00b = EEPROM

01b = FeRAM

Others = Reserved

MEM SIZE of SPACE 0:

MEM SIZE of the LAST BANK in SPACE 1:

0 = 256 bytes

4 = 4 kbytes

8 = 64 kbytes

1 = 512 bytes

5 = 8 kbytes

Others = Reserved

2 = 1 kbytes

6 = 16 kbytes

Fh = No information

3 = 2 kbytes

7 = 32 kbytes

MEM BANK NO. of SPACE 1: Total number of memory banks in space 1

If MEM BANK NO. of SPACE 1 = 0, MEM SIZE of the LAST BANK in SPACE 1 shall be Fh.

TAPE THICKNESS:

0,0  $\mu\text{m}$  to 9,9  $\mu\text{m}$

3.2 TAPE LENGTH

	MSB	LSB
PC 0	0 0 0 0 0 0 0 0	1
PC 1	.....▶ LSB	
PC 2	.....TAPE LENGTH.....	
PC 3	◀.....( binary ).....	
PC 4	1 1 1 1 1 1 1 1	

This pack shall be written in the MIC main area.

TAPE LENGTH:

The number of tracks which is given by dividing the total length of magnetic tape by the track pitch 0 for SP mode (10 µm).

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### 3.3 TIMER ACT DATE (Timer activation date)

	MSB						LSB	
PC 0	0	0	0	0	0	0	1	0
PC 1	SR	DAY						
PC 2	RP	TCF	TNMN	UNITS of MONTH				
PC 3	TENS of YEAR			UNITS of YEAR				
PC 4	TEXT	GENRE CATEGORY						

This pack may be written in the MIC common optional area.

SR: SP/RSV

This flag is valid only for recording of track pitch 0 and track pitch 1.

0 = Reserved (track pitch 1 shall be selected)

1 = SP mode (track pitch 0 shall be selected)

This flag should be set 1 for recording of track pitch 2 and track pitch 3.

DAY and TCF: DAY and timer control flag

TCF	Form	DAY
00	Weekly	Sun. Mon. Tue. Wed. Thr. Fri. Sat.
01	Once	Sun. Mon. Tue. Wed. Thr. Fri. Sat.
10	Reserved	
11	Date	01 to 31

For TCF = 00b or 01b, each bit of DAY is set according to negative logic.

RP: Recording protect

0 = Over-recording on the programme, which is recorded by this timer activation, is not allowed

1 = Over-recording on the programme, which is recorded by this timer activation, is allowed

MONTH:

01 to 12 = January to December

1Fh = No information

TNMN: Tens of month

YEAR: Last two figures of year

00 to 99

FFh = No information