IEC 60958-3

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INTERNATIONAL STANDARD

AMENDMENT 1

Digital audio interface –
Part 3: Consumer applications

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

FOREWORD

This amendment has been prepared by technical area 4: Digital system interfaces and protocols of IEC technical committee 100: Audio, video and multimedia systems and equipment.

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

CDV	Report on voting
100/1513/CDV	100/1592/RVC

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 this amendment and the base 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- withdrawn,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.

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

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INTRODUCTION to Amendment 1

The revision of IEC 60958-3 (2006) has become necessary to transmit the audio signal and its information of the current improved audio formats and systems. The revised items apply to the small parts of IEC 60958-3.

Additional sampling frequencies have been defined for the use of audio transmission of IEC 60958 conformant data format for the new formats of the IEC 61937 series.

CGMS-A validity is added to clarify the use of CGMS-A information.

The identification of the embedded MPEG Surround information to LPCM and its normative Annex U are added.

Table 2 includes the new additions and Table 3 has been clarified.

2   Normative references

Insert, in the list of normative references, the following new publication:

ISO/IEC 23003-1, *Information technology – MPEG audio technologies – Part 1: MPEG Surround*

5.2.2 Mode 0 channel status format for digital audio equipment for consumer use

Table 2   Mode 0 channel status format for consumer use

Replace the entire existing Table 2 by the following new Table 2:

Byte								
0	a = "0"	b = "0"	c		d		Mode = "0 0"	
bit	0	1	2	3	4	5	6	7
1	Category code							
bit	8	9	10	11	12	13	14	15
2	Source number				Channel number			
bit	16	17	18	19	20	21	22	23
3	Sampling frequency				Clock accuracy		Sampling frequency extension	
bit	24	25	26	27	28	29	30	31
4	Word length				Original sampling frequency			
bit	32	33	34	35	36	37	38	39
5	CGMS-A		CGMS-A validity		Audio sampling frequency coefficient			
bit	40	41	42	43	44	45	46	47
6	Information hidden in PCM signal							
bit	48	49	50	51	52	53	54	55
7								
bit	56	57	58	59	60	61	62	63
8								
bit	64	65	66	67	68	69	70	71
9								
bit	72	73	74	75	76	77	78	79
10								
bit	80	81	82	83	84	85	86	87
11								
bit	88	89	90	91	92	93	94	95
12								
bit	96	97	98	99	100	101	102	103
13								
bit	104	105	106	107	108	109	110	111
14								
bit	112	113	114	115	116	117	118	119
15								
bit	120	121	122	123	124	125	126	127
16								
bit	128	129	130	131	132	133	134	135
17								
bit	136	137	138	139	140	141	142	143
18								
bit	144	145	146	147	148	149	150	151
19								
bit	152	153	154	155	156	157	158	159
20								
bit	160	161	162	163	164	165	166	167
21								
bit	168	169	170	171	172	173	174	175
22								
bit	176	177	178	179	180	181	182	183
23								
bit	184	185	186	187	188	189	190	191

a: use of channel status block. c: copyright information.
b: linear PCM identification. d: additional format information.

Byte 3: Sampling frequency and clock accuracy

Add, after the existing text defining Bits 28 to 29 and before NOTE 2, the following:

Bits 30 to 31	Sampling frequency extension with sampling frequency bits 24 to 27
Bit	24 25 26 27 30 31 Sampling frequency
State	"1 0 1 0 0 0" 384 kHz
	"1 0 1 0 1 0" 1 536 kHz
	"1 0 1 0 1 1" 1 024 kHz
	"1 0 1 1 0 0" 352,8 kHz
	"1 0 1 1 0 1" 705,6 kHz
	"1 0 1 1 1 0" 1 411,2 kHz
	"1 1 0 1 0 0" 64 kHz
	"1 1 0 1 0 1" 128 kHz
	"1 1 0 1 1 0" 256 kHz
	"1 1 0 1 1 1" 512 kHz

Replace the entire existing NOTE 2 by the following new NOTE 2:

NOTE 2   The sampling frequency over 192 kHz is not actual. It represents frame rate for compressed audio transmission, and it is used for high bit rate transmission using IEC 60958 protocol. For example, IEC 61883-6 can transmit a high bit rate of IEC 61937 using IEC 60958 conformant format defined in IEC 61883-6.

Byte 4: Word length and original sampling frequency:

Replace the existing text defining Bits 36 to 39 by the following:

Bits 36 to 39	Original sampling frequency
Bit	36 37 38 39
State	"1 1 1 1" 44,1 kHz
	"1 1 1 0" 88,2 kHz
	"1 1 0 1" 22,05 kHz
	"1 1 0 0" 176,4 kHz
	"1 0 1 1" 48 kHz
	"1 0 1 0" 96 kHz
	"1 0 0 1" 24 kHz
	"1 0 0 0" 192 kHz
	"0 1 1 1" 128 kHz
	"0 1 1 0" 8 kHz
	"0 1 0 1" 11,025 kHz
	"0 1 0 0" 12 kHz
	"0 0 1 1" 32 kHz
	"0 0 1 0" 64 kHz
	"0 0 0 1" 16 kHz
	"0 0 0 0" Original sampling frequency not indicated (default)

Notes 4 and 5 remain applicable.