IEC 60958-3

Edition 3.0 2015-06

INTERNATIONAL STANDARD

AMENDMENT 2

Digital audio interface – Part 3: Consumer applications

IEC 60958-3:2006-05/AMD2:2015-06(en)

IEC Central Office
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

About the IEC
The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications
The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

IEC Catalogue - webstore.iec.ch/catalogue
The stand-alone application for consulting the entire bibliographical information on IEC International Standards, Technical Specifications, Technical Reports and other documents. Available for PC, Mac OS, Android Tablets and iPad.

IEC publications search - www.iec.ch/searchpub
The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,…). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished
Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and also once a month by email.

Electropedia - www.electropedia.org
The world's leading online dictionary of electronic and electrical terms containing more than 30 000 terms and definitions in English and French, with equivalent terms in 15 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC Glossary - std.iec.ch/glossary
More than 60 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

IEC Customer Service Centre - webstore.iec.ch/csc
If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: csc@iec.ch.

IEC 60958-3

Edition 3.0 2015-06

INTERNATIONAL STANDARD

AMENDMENT 2

Digital audio interface – Part 3: Consumer applications

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ICS 33.160.01

ISBN 978-2-8322-2680-3

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:

FDIS	Report on voting
100/2464/FDIS	100/2494/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 this amendment and the base publication will remain unchanged until the stability 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.

INTRODUCTION to Amendment 2

The revision of IEC 60958-3:2006 has become necessary to document the protocol for transmitting the audio signal and its information in current improved audio formats and systems.

To apply IEC 60958-3 and its IEC 60958 conformant data format transmitting as part or whole of the multichannel audio data, a general channel assignment number specified in IEC 62574 is added to the C-bit.

Loudness information is added to the U-bit to enable loudness control.

2 Normative references

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

IEC 62574:2011, *Audio, video and multimedia systems – General channel assignment of multichannel audio*

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 rows of byte 6 and byte 7, by the following rows:

	bit	40	41	42	43	44	45	46	47
6		**Information hidden in PCM signal**	**General channel assignment channel number for A channel**						**General channel assignment channel number for B channel**
	bit	48	49	50	51	52	53	54	55
7		**General channel assignment channel number for B channel**							

Byte 6: Information hidden in PCM signal

Replace the existing title of byte 6 of Amendment 1 by the following new title:

Byte 6 and byte 7: Information hidden in PCM and general channel assignment channel number

Replace, after the line "Additional information in LSB"*, the existing text defining bits 49 to 55, by the following:*

Bits 49 to 53	General channel assignment channel number for A channel	
Bit	49 50 51 52 53 54	
State	“0 0 0 0 0 0”	Channel number 1
	“1 0 0 0 0 0”	Channel number 2
	⋮	
	“1 1 1 1 1 0”	Channel number 32
Bit 54 to 58	General channel assignment channel number for B channel	
Bit	55 56 57 58 59 60	
State	“0 0 0 0 0 0”	Channel number 1
	“1 0 0 0 0 0”	Channel number 2
	⋮	
	“1 1 1 1 1 0”	Channel number 32

Add, after the existing NOTE 8, the following new paragraph:

IEC 62574 specifies the general channel assignment. The channel number 1 to 32 assignments are specified in Table 1 of IEC 62574:2011

6.2.4.1 General user data format

The bits R, S, T, U, V, W have the following meaning:

Insert in the existing text defining "Mode" *and* "RST" *a new row after* "110 Latency" *as follows:*

111 Loudness

Add, after the existing Figure 10, the following new subclause:

6.3.3 Loudness information

Loudness information is aligned to information units, as shown in Figure 11.

Mode RSTUVW

111000 Loudness

Figure 11 – Loudness information

The second information unit is specified as follows.

0001111b

Loudness information is aligned to 16 IUs of the user information area, as shown in Figure 12.

1 (Start)	Q	LoudnessValue					
1 (Start)	Q	LoudnessValue					
1 (Start)	Q	LoudnessValue				LoudnessRange	
1 (Start)	Q	LoudnessRange					
1 (Start)	Q	LoudnessRange					
1 (Start)	Q	LoudnessRange		MaxTruePeakLevel			
1 (Start)	Q	MaxTruePeakLevel					
1 (Start)	Q	MaxTruePeakLevel					
1 (Start)	Q	MaxMomentaryLoudness					
1 (Start)	Q	MaxMomentaryLoudness					
1 (Start)	Q	MaxMomentaryLoudness				MaxShortTermLoudness	
1 (Start)	Q	MaxShortTermLoudness					
1 (Start)	Q	MaxShortTermLoudness					
1 (Start)	Q	MaxShortTermLoudness		0	0	0	0
1 (Start)	Q	0	0	0	0	0	0
1 (Start)	Q	0	0	0	0	0	0

NOTE Loudness information is defined in EBU Tech 3285.

Figure 12 – Loudness information alignment