

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 2
AMENDEMENT 2

Digital audio interface –
Part 3: Consumer applications

Interface audionumérique –
Partie 3: Applications grand public

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IEC 60958-3:2006/AMD2:2015
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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.

This bilingual version (2019-10) corresponds to the monolingual English version, published in 2015-06.

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 French version of this standard has not been voted upon.

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- withdrawn,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.

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 | | | | | | | |

ITeh STANDARD PREVIEW

Byte 6: Information hidden in PCM signal (standards.iteh.ai)

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

<https://standards.iteh.ai/catalog/standards/sist/78f74131-6d41-4b76-85c4-1b131e91141c/iec-60958-3-2006-amd2-2015>

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" | | | | | Channel number 1 |
| | "1 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" | | | | | Channel number 1 |
| | "1 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

IEC 60958-3:2006/AMD2:2015

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 | |
| 1 (Start) | Q | 0 | 0 | 0 | 0 | 0 | |

NOTE Loudness information is defined in EBU Tech 3285.

Figure 12 – Loudness information alignment

Bibliography

Add the following entry:

EBU TECH 3285 Version 2.0, *Specification of the Broadcast Wave Format (BWF)*

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AVANT-PROPOS

Le présent amendement a été établi par le domaine technique 4: Interfaces et protocoles pour les systèmes numériques, du comité d'études 100 de l'IEC: Systèmes et équipements audio, vidéo et services de données

La présente version bilingue 2019-10 correspond à la version anglaise monolingue publiée en 2015-06.

Le texte anglais de cette norme est issu des documents 100/2464/FDIS et 100/2494/RVD.

Le rapport de vote 100/2494/RVD donne toute information sur le vote ayant abouti à l'approbation de cette norme.

La version française de cette norme n'a pas été soumise au vote.

Le comité a décidé que le contenu de cet amendement et de la publication de base ne sera pas modifié avant la date de stabilité indiquée sur le site web de l'IEC sous "http://webstore.iec.ch" dans les données relatives à la publication recherchée. À cette date, la publication sera:

- reconduite,
- supprimée,
- remplacée par une édition révisée, ou
- amendée.

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INTRODUCTION à l'Amendement 2

La révision de l'IEC 60958-3:2006 est devenue nécessaire pour documenter le protocole lié à la transmission du signal audio et de ses informations dans les formats et systèmes audio actuels améliorés.

Pour appliquer l'IEC 60958-3 et son format de données conforme IEC 60958 transmettant partiellement ou en totalité les données audio à voies multiples, un numéro d'affectation générale des voies figurant dans l'IEC 62574 est ajouté au bit C.

Les informations se rapportant à la sonie sont ajoutées au bit U pour permettre le contrôle de la sonie.

