

FINAL VERSION

VERSION FINALE

**Digital audio interface –
Part 3: Consumer applications**

**Interface audionumérique –
Partie 3: Applications grand public**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

DIGITAL AUDIO INTERFACE –

Part 3: Consumer applications

FOREWORD

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This Consolidated version is not an official IEC Standard and has been prepared for user convenience. Only the current versions of the standard and its amendment(s) are to be considered the official documents.

This Consolidated version of IEC 60958-3 bears the edition number 3.2. It consists of the third edition (2006-05) [documents 100/1009/CDV and 100/1070/RVC], its amendment 1 (2009-10) [documents 100/1513/CDV and 100/1592/RVC] and its amendment 2 (2015-06) [documents 100/2464/FDIS and 100/2494/RVD]. The technical content is identical to the base edition and its amendments.

This Final version does not show where the technical content is modified by amendments 1 and 2. A separate Redline version with all changes highlighted is available in this publication.

International Standard IEC 60958-3 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

This edition includes the following significant technical changes with respect to the previous edition.

- Electrical and optical requirements are removed from IEC 60958-3; they should be specified in IEC 60958-1. The third edition of IEC 60958-1 will include these.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The list of all the parts of the IEC 60958 series, under the general title *Digital audio interface*, can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendments 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- withdrawn,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 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.

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.

DIGITAL AUDIO INTERFACE –

Part 3: Consumer applications

1 Scope

This part of IEC 60958 specifies the consumer application of the interface for the inter-connection of digital audio equipment defined in IEC 60958-1.

NOTE When used in a consumer digital processing environment, the interface is primarily intended to carry stereophonic programmes, with a resolution of up to 20 bits per sample, an extension to 24 bits per sample being possible.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60841:1988, *Audio recording – PCM encoder/decoder system*

IEC 60908:1999, *Audio recording – Compact disc digital audio system*

IEC 60958-1:2004, *Digital audio interface – Part 1: General*

IEC 61119-1:1992, *Digital audio tape cassette system (DAT) – Part 1: Dimensions and characteristics*

IEC 61119-6:1992, *Digital audio tape cassette system (DAT) – Part 6: Serial copy management system*

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

IEEE 1394:2004, *IEEE standard for high-performance serial bus bridges*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60958-1 apply.

4 Interface format

The interface format as defined in IEC 60958-1 shall be used.

Unless otherwise specified in the annexes, the following specification is applicable.

- Audio sample word has a length of 20 bits/sample. The auxiliary sample bits are an optional expansion of the audio sample, if not used = "0".
- User data is not used, all bits = "0".