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INTERNATIONAL STANDARD



Digital audio interface –
Part 1: General

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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CONTENTS

FOREWORD.....	4
INTRODUCTION to Amendment 1.....	
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions	7
4 Interface format	9
4.1 Structure of format	9
4.1.1 Sub-frame format	9
4.1.2 Frame format	10
4.2 Channel coding	11
4.3 Preambles	11
4.4 Validity bit.....	12
5 Channel status	12
5.1 General.....	12
5.2 Applications	13
5.3 General assignment of the first and second channel status bits	13
5.4 Category code.....	13
6 User data	15
6.1 General.....	15
6.2 Applications	15
6.2.1 Professional use	15
6.2.2 Consumer use.....	15
7 Electrical requirement.....	15
7.1 Consumer application.....	15
7.1.1 General	15
7.1.2 Timing accuracy.....	15
7.1.3 Unbalanced line	16
7.2 Professional application	19
8 Optical requirements.....	19
8.1 Consumer application.....	19
8.1.1 Optical specification Configuration of optical connection	19
8.1.2 Optical connector	19
8.2 Professional applications.....	20
Annex A (informative) The use of the validity bit	21
Annex B (informative) Application documents and specifications.....	22
Annex C (informative) A relationship of the IEC 60958 series families	23
Annex D (informative) Transmission of CD data other than linear PCM audio	25
Annex E (informative) The IEC 60958 series conformant data format	26
Annex F (informative) Stream change.....	27
Annex G (informative) Characteristics of optical connection	29
Bibliography	31
Figure 1 – Sub-frame format (linear PCM application).....	10
Figure 2 – Frame format	11

Figure 3 – Channel coding	11
Figure 4 – Preamble M (shown as 11100010)	12
Figure 5 – Simplified example of the configuration of the circuit (unbalanced)	16
Figure 6 – Rise and fall times	17
Figure 7 – Intrinsic jitter measurement filter	17
Figure 8 – Eye diagram	18
Figure 9 – Receiver jitter tolerance template	18
Figure 10 – Basic optical connection	19
Figure C.1 – Relationships of the IEC 60958 families	23
Figure F.1 – Audio sources and AV receiver model	27
Figure F.2 – Switching from linear PCM to non linear PCM	28
Figure F.3 – Switching from non linear PCM to linear PCM	28
Figure F.4 – Switching from non-linear PCM to non-linear PCM	28
Table 1 – Preamble coding	12
Table 2 – Channel status data format	14
Table B.1 – Application documents and specifications	22
Table C.1 – data_type values and application	24
Table G.1 – Characteristics of standard optical connection (optical interface)	29
Table G.2 – Characteristics of optical transmitter (optical interface)	29
Table G.3 – Characteristics of optical receiver (optical interface)	30
Table G.4 – Characteristics of fibre optic cable	30
Table G.5 – Optical power budget for the link with plastic fibre	30

INTERNATIONAL ELECTROTECHNICAL COMMISSION

DIGITAL AUDIO INTERFACE –

Part 1: General

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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IEC 60958-1 has been prepared by technical area 20: Analogue and digital audio, of IEC technical committee 100: Audio, video and multimedia systems and equipment. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2008, and Amendment 1:2014. This edition constitutes a technical revision.

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

- a) The relevant part of IEC 60958-5 is supported.

The text of this International Standard is based on the following documents:

Draft	Report on voting
100/3544/CDV	100/3593/RVC

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

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

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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INTRODUCTION to Amendment 1

~~The revision of IEC 60958-1:2008 has become necessary in order to revise Annexes B and C, and the Bibliography. Additional information for the use of the IEC 60958 conformant data format has also been included.~~

DIGITAL AUDIO INTERFACE –

Part 1: General

1 Scope

This part of IEC 60958 describes a serial, uni-directional, self-clocking interface for the interconnection of digital audio equipment for consumer and professional applications.

It provides the basic structure of the interface. Separate documents define items specific to particular applications.

The interface is primarily intended to carry monophonic or stereophonic programmes, encoded using linear PCM and with a resolution of up to 24 bits per sample.

When used for other purposes, the interface is able to carry audio data coded other than as linear PCM coded audio samples. Provision is also made to allow the interface to carry data related to computer software, **multimedia technologies**, or signals coded using non-linear PCM. The format specification for these applications is not part of this document.

The interface is intended for operation at audio sampling frequencies of 32 kHz and above. Auxiliary information is transmitted along with the programme.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60268-11:1987, *Sound system equipment – Part 11: Application of connectors for the interconnection of sound system components*

~~IEC 60874-17, Connectors for optical fibres and cables – Part 17: Sectional specification for fibre optic connector Type F-05 (friction lock)~~

IEC 60958-3, *Digital audio interface – Part 3: Consumer applications*

IEC 60958-4 (all parts), *Digital audio interface – Part 4: Professional applications*

IEC 60958-5, *Digital audio interface – Part 5: Consumer application enhancement*

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Digital audio interface –
Part 1: General

Interface audionumérique –
Partie 1: Généralités



CONTENTS

FOREWORD	4
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Interface format	8
4.1 Structure of format	8
4.1.1 Sub-frame format	8
4.1.2 Frame format	9
4.2 Channel coding	10
4.3 Preambles	10
4.4 Validity bit	11
5 Channel status	11
5.1 General	11
5.2 Applications	11
5.3 General assignment of the first and second channel status bits	11
5.4 Category code	12
6 User data	14
6.1 General	14
6.2 Applications	14
6.2.1 Professional use	14
6.2.2 Consumer use	14
7 Electrical requirement	14
7.1 Consumer application	14
7.1.1 General	14
7.1.2 Timing accuracy	14
7.1.3 Unbalanced line	15
7.2 Professional application	18
8 Optical requirements	18
8.1 Consumer application	18
8.1.1 Configuration of optical connection	18
8.1.2 Optical connector	18
8.2 Professional applications	19
Annex A (informative) The use of the validity bit	20
Annex B (informative) Application documents and specifications	21
Annex C (informative) A relationship of the IEC 60958 series families	22
Annex D (informative) Transmission of CD data other than linear PCM audio	24
Annex E (informative) The IEC 60958 series conformant data format	25
Annex F (informative) Stream change	26
Annex G (informative) Characteristics of optical connection	28
Bibliography	30
Figure 1 – Sub-frame format (linear PCM application)	9
Figure 2 – Frame format	9
Figure 3 – Channel coding	10

Figure 4 – Preamble M (shown as 11100010)	11
Figure 5 – Simplified example of the configuration of the circuit (unbalanced).....	15
Figure 6 – Rise and fall times	16
Figure 7 – Intrinsic jitter measurement filter	16
Figure 8 – Eye diagram.....	17
Figure 9 – Receiver jitter tolerance template	17
Figure 10 – Basic optical connection.....	18
Figure C.1 – Relationships of the IEC 60958 families.....	22
Figure F.1 – Audio sources and AV receiver model.....	26
Figure F.2 – Switching from linear PCM to non linear PCM	26
Figure F.3 – Switching from non linear PCM to linear PCM	27
Figure F.4 – Switching from non-linear PCM to non-linear PCM	27
 Table 1 – Preamble coding	10
Table 2 – Channel status data format	13
Table B.1 – Application documents and specifications	21
Table C.1 – data_type values and application	23
Table G.1 – Characteristics of standard optical connection (optical interface)	28
Table G.2 – Characteristics of optical transmitter (optical interface).....	28
Table G.3 – Characteristics of optical receiver (optical interface)	29
Table G.4 – Characteristics of fibre optic cable	29
Table G.5 – Optical power budget for the link with plastic fibre	29

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DIGITAL AUDIO INTERFACE –

Part 1: General

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IEC 60958-4 (all parts), *Digital audio interface – Part 4: Professional applications*

IEC 60958-5, *Digital audio interface – Part 5: Consumer application enhancement*

SOMMAIRE

AVANT-PROPOS	34
1 Domaine d'application	36
2 Références normatives	36
3 Termes et définitions	36
4 Format d'interface.....	38
4.1 Structure du format.....	38
4.1.1 Format des sous-trames	38
4.1.2 Format des trames.....	39
4.2 Codage des voies	40
4.3 Préambules.....	40
4.4 Bit de validité	41
5 Voie de signalisation	42
5.1 Généralités	42
5.2 Applications	42
5.3 Assignation générale des premier et deuxième bits de la voie de signalisation.....	42
5.4 Code de catégorie.....	42
6 Données utilisateur.....	44
6.1 Généralités	44
6.2 Applications	44
6.2.1 Utilisation professionnelle.....	44
6.2.2 Utilisation grand public	44
7 Exigence électrique	44
7.1 Application grand public.....	44
7.1.1 Généralités	44
7.1.2 Précision temporelle	44
7.1.3 Ligne asymétrique	45
7.2 Application professionnelle	48
8 Exigences optiques	48
8.1 Application grand public.....	48
8.1.1 Configuration de la connexion optique	48
8.1.2 Connecteur optique	49
8.2 Applications professionnelles	49
Annexe A (informative) Utilisation du bit de validité.....	50
Annexe B (informative) Documents et spécifications d'application.....	51
Annexe C (informative) Relation entre les familles de la série IEC 60958	52
Annexe D (informative) Transmission de données de CD autres que des données audio MIC linéaires	54
Annexe E (informative) Format de données conforme à la série IEC 60958	55
Annexe F (informative) Changement de flux.....	56
Annexe G (informative) Caractéristiques de la connexion optique	58
Bibliographie.....	60
Figure 1 – Format de la sous-trame (application MIC linéaire)	39

Figure 2 – Format de la trame	40
Figure 3 – Codage de la voie	40
Figure 4 – Préambule M (11100010)	41
Figure 5 – Exemple simplifié de la configuration du circuit (asymétrique)	45
Figure 6 – Temps de montée et de descente	46
Figure 7 – Filtre de mesurage de la gigue intrinsèque	46
Figure 8 – Diagramme de l'œil	47
Figure 9 – Gabarit de tolérance sur la gigue du récepteur	48
Figure 10 – Connexion optique de base	49
Figure C.1 – Relation entre les familles IEC 60958	52
Figure F.1 – Sources audio et modèle de récepteur AV	56
Figure F.2 – Commutation de données MIC linéaires à des données MIC non linéaires	57
Figure F.3 – Commutation de données MIC non linéaires à des données MIC linéaires	57
Figure F.4 – Commutation de données MIC non linéaires à des données MIC non linéaires	57
 Tableau 1 – Codage du préambule	41
Tableau 2 – Format de données de la voie de signalisation	43
Tableau B.1 – Documents et spécifications d'application	51
Tableau C.1 – Valeurs data_type et application	53
Tableau G.1 – Caractéristiques d'une connexion optique normale (interface optique)	58
Tableau G.2 – Caractéristiques de l'émetteur optique (interface optique)	58
Tableau G.3 – Caractéristiques du récepteur optique (interface optique)	59
Tableau G.4 – Caractéristiques du câble fibronique	59
Tableau G.5 – Bilan optique pour la liaison à fibres plastiques	59

COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

INTERFACE AUDIONUMÉRIQUE –

Partie 1: Généralités

AVANT-PROPOS

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L'IEC 60958-1 a été établie par le domaine technique 20: Audio analogique et numérique, du comité d'études 100 de l'IEC: Systèmes et équipements audio, vidéo et services de données. Il s'agit d'une Norme internationale.

Cette quatrième édition annule et remplace la troisième édition parue en 2008, et l'Amendement 1:2014. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

- a) la partie pertinente de l'IEC 60958-5 est prise en compte.

La présente version bilingue (2021-12) correspond à la version anglaise monolingue publiée en 2021-09.

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

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

Une liste de toutes les parties de la série IEC 60958, publiées sous le titre général *Interface audionumérique*, se trouve sur le site web de l'IEC.

Le présent document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous www.iec.ch/members_experts/refdocs. Les principaux types de documents développés par l'IEC sont décrits plus en détail sous www.iec.ch/standardsdev/publications.

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INTERFACE AUDIONUMÉRIQUE –

Partie 1: Généralités

1 Domaine d'application

La présente partie de l'IEC 60958 décrit une interface série unidirectionnelle et autosynchronisante pour l'interconnexion des appareils audionumériques destinés aux applications grand public et professionnelles.

Elle fournit la structure de base de l'interface. Les points spécifiques à des applications particulières sont définis dans des documents distincts.

Cette interface est essentiellement destinée à acheminer des programmes monophoniques ou stéréophoniques, qui utilisent un codage MIC linéaire et une résolution jusqu'à 24 bits par échantillon.

Lorsqu'elle est utilisée à d'autres fins, cette interface est capable d'acheminer des données audio codées autres que des échantillons audio à codage MIC linéaire. Des dispositions ont également été prises pour permettre à l'interface d'acheminer des données relatives à des logiciels, des technologies multimédias ou des signaux à codage MIC non linéaire. La spécification du format de ces applications ne relève pas du présent document.

L'interface est destinée à fonctionner à des fréquences d'échantillonnage audio supérieures ou égales à 32 kHz. Des informations auxiliaires sont transmises avec le programme.

2 Références normatives

Les documents suivants sont cités dans le texte de sorte qu'ils constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 60268-11:1987, *Equipements pour systèmes électroacoustiques – Onzième partie: Application des connecteurs pour l'interconnexion des éléments de systèmes électroacoustiques*

IEC 60958-3, *Interface audionumérique – Partie 3: Applications grand public*

IEC 60958-4 (toutes les parties), *Interface audionumérique – Partie 4: Applications professionnelles*

IEC 60958-5, *Interface audionumérique – Partie 5: Amélioration de l'application grand public*