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NSAI Standards

Irish Standard
I.S. EN 60958-4-2:2016

Digital audio interface - Part 4-2: Professional applications - Metadata and subcode

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I.S. EN 60958-4-2:2016 is the adopted Irish version of the European Document EN 60958-4-2:2016, Digital audio interface - Part 4-2: Professional applications - Metadata and subcode

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NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60958-4-2

July 2016

ICS 33.160.30

Supersedes EN 60958-4:2003 (partially)

English Version

Digital audio interface - Part 4-2: Professional applications - Metadata and subcode (IEC 60958-4-2:2016)

Interface audionumérique - Partie 4-2: Applications professionnelles - Métadonnées et sous-code (IEC 60958-4-2:2016)

Digitalton-Schnittstelle - Teil 4-2: Professioneller Gebrauch - Metadaten und Subcode (IEC 60958-4-2:2016)

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European foreword

The text of document 100/2453/CDV, future edition 1 of IEC 60958-4-2, prepared by Technical Area 4 "Digital system interfaces and protocols", of IEC/TC 100 "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60958-4-2:2016.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2017-01-28
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IEC 60958	NOTE	Harmonized in EN 60958 series.
IEC 62365:2009	NOTE	Harmonized as EN 62365:2009 (not modified).
IEC 62537	NOTE	Harmonized as EN 62537.

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60958-1	2008	Digital audio interface - Part 1: General	EN 60958-1	2008
+ A1	2014		+ A1	2014
IEC 60958-3	-	Digital audio interface - Part 3: Consumer applications	EN 60958-3	-
IEC 60958-4-1	-	Digital audio interface - Part 4-1: Professional applications - Audio content	EN 60958-4-1	-
IEC 60958-4-4	-	Digital audio interface - Part 4-4: Professional applications - Physical and electrical parameters	EN 60958-4-4	-
ISO/IEC 646	-	Information technology - ISO 7-bit coded character set for information interchange	-	-
ITU-R Recommendation BS.450-3	-	Transmission standards for FM sound broadcasting at VHF	-	-
ITU-T Recommendation J.17	-	Pre-emphasis used on sound-programme circuits	-	-

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IEC 60958-4-2

Edition 1.0 2016-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Digital audio interface – Part 4-2: Professional applications – Metadata and subcode

Interface audionumérique – Partie 4-2: Applications professionnelles – Métadonnées et sous-code

IEC 60958-4-2:2016-03(en-fr)

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IEC 60958-4-2

Edition 1.0 2016-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Digital audio interface – Part 4-2: Professional applications – Metadata and subcode

Interface audionumérique – Partie 4-2: Applications professionnelles – Métadonnées et sous-code

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DIGITAL AUDIO INTERFACE –

Part 4-2: Professional applications – Metadata and subcode

FOREWORD

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International Standard IEC 60958-4-2 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 first edition, together with IEC 60958-4-1 and IEC 60958-4-4, cancels and replaces IEC 60958-4 published in 2003 and its Amendment 1:2008 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 60958-4:2003 with its Amendment 1:2008:

a) support for a wider range of physical media;

b) support for a wider range of audio sampling frequencies;

c) deprecation of "minimum implementation" of channel status data.

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

CDV	Report on voting
100/2453/CDV	100/2582/RVC

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

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

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

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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
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INTRODUCTION

The two-channel digital audio interface has been widely used in a variety of professional audio applications that have reached beyond the vision of the original standard. In particular, applications using increased sampling frequencies and alternative physical media.

Separating the standard into independently-maintainable parts allows, for example, additional transmission media to be introduced in the future by revising IEC 60958-4-4 without affecting the other parts of the IEC 60958-4 series. The parts comprise:

Part 4-1: Audio content: defines the format for coding audio used for the audio content. It specifies the semantics of the audio data, including the "validity" flag. It also specifies the sampling frequency by reference to AES5.

Part 4-2: Metadata and subcode: specifies the format for information, metadata, or subcode transmitted with the audio data: principally the "channel status" but also user data and the auxiliary bits. Implementors will note that the current implementation options ("Standard" and "Enhanced") both require that status data be implemented correctly in compliant equipment.

Part 4-4: Physical and electrical parameters: specifies the physical signals that convey the bit stream specified in IEC 60958-1. The transport format is intended for use with shielded twisted-pair cable of conventional design over distances of up to 100 m at frame rates of up to 50 kHz. Longer cable lengths and higher frame rates may be used, but with a rapidly increasing requirement for care in cable selection and possible receiver equalization, or the use of active repeaters. Provision is made in this standard for adapting the balanced terminals to use 75 Ω coaxial cable. Transmission by fibre-optic cable is under consideration.

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DIGITAL AUDIO INTERFACE –

Part 4-2: Professional applications – Metadata and subcode

1 Scope

This part of IEC 60958 specifies the format for coding metadata, or subcode, that relates to the audio content and is carried with it. This part of IEC 60958, together with IEC 60958-1, IEC 60958-4-1, and IEC 60958-4-4, specifies an interface for serial digital transmission of two channels of periodically sampled and linearly represented digital audio data from one transmitter to one receiver.

2 Normative references

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

IEC 60958-1:2008, *Digital audio interface – Part 1: General*
IEC 60958-1:2008/AMD1:2014

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

IEC 60958-4-1, *Digital audio interface – Part 4-1: Professional applications – Audio content*

IEC 60958-4-4, *Digital audio interface – Part 4-4: Professional applications – Physical and electrical parameters*

ISO 646, *Information technology – ISO 7-bit coded character set for information interchange*

ITU-R Recommendation BS.450, *Transmission standards for FM sound broadcasting at VHF*[1]

ITU-T Recommendation J.17, *Pre-emphasis used on sound program circuits*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

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

3.1.1
channel status
bits carrying, in a fixed format aligned with the block, specified in IEC 60958-1, information associated with each audio channel which is decodable by any interface user

---

[1] Previously CCIR Recommendation 450-1.

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