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Irish Standard  
I.S. EN IEC 62680-1-7:2019

Universal serial bus interfaces for data  
and power - Part 1-7: Common  
components - USB Audio 3.0 device class  
definition data formats

**I.S. EN IEC 62680-1-7:2019**

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*This document is based on:*

EN IEC 62680-1-7:2019

*Published:*

2019-11-15

*This document was published under the authority of the NSAI and comes into effect on:*

2019-12-05

ICS number:

NOTE: If blank see CEN/CENELEC cover page

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## National Foreword

I.S. EN IEC 62680-1-7:2019 is the adopted Irish version of the European Document EN IEC 62680-1-7:2019, Universal serial bus interfaces for data and power - Part 1-7: Common components - USB Audio 3.0 device class definition data formats

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**EN IEC 62680-1-7**

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2019

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ICS 33.160; 35.100.20

English Version

**Universal serial bus interfaces for data and power - Part 1-7:  
Common components - USB Audio 3.0 device class definition  
data formats  
(IEC 62680-1-7:2019)**

Interfaces de bus universel en série pour les données et  
l'alimentation électrique - Partie 1-7: Composants communs  
- Définition de classes de dispositifs USB Audio 3.0 pour  
formats de données  
(IEC 62680-1-7:2019)

Schnittstellen des Universellen Seriellen Busses für Daten  
und Energie - Teil 1-7: Gemeinsame Komponenten - USB  
Audio 3.0 Geräteklassendefinition Datenformate  
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## **EN IEC 62680-1-7:2019 (E)**

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The text of document 100/3159/CDV, future edition 1 of IEC 62680-1-7, prepared by IEC/TC 100 "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62680-1-7:2019.

The following dates are fixed:

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**IEC 62680-1-7**

Edition 1.0 2019-09

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# **NORME INTERNATIONALE**



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Part 1-7: Common components – USB Audio 3.0 device class definition data  
formats**

**Interfaces de bus universel en série pour les données et l'alimentation  
électrique –  
Partie 1-7: Composants communs – Définition de classes de dispositifs USB  
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**IEC 62680-1-7**

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Audio 3.0 pour formats de données**

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ICS 33.160; 35.100.20

ISBN 978-2-8322-7243-5

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USB Audio 3.0 device class definition data formats**

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The text of this standard was prepared by the USB Implementers Forum (USB-IF). The structure and editorial rules used in this publication reflect the practice of the organization which submitted it.

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

CDV	Report on voting
100/3159/CDV	100/3229/RVC

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

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The IEC 62680 series is based on a series of specifications that were originally developed by the USB Implementers Forum (USB-IF). These specifications were submitted to the IEC under the auspices of a special agreement between the IEC and the USB-IF.

This standard is the USB-IF publication USB Device Class Definition for Audio Data Formats Release 3.0.

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# UNIVERSAL SERIAL BUS DEVICE CLASS DEFINITION FOR AUDIO DATA FORMATS

**Release 3.0**

**September 22, 2016**

## SCOPE OF THIS RELEASE

This document is the Release 3.0 of this device class definition.

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## REVISION HISTORY

Revision	Date	Filename	Description
1.0	Mar. 18, 98	Frmmts10.pdf	Release 1.0
2.0	May. 31, 06	Frmmts20 final.pdf	Release 2.0
3.0	Sep. 22, 16	Frmmts30.pdf	Release 3.0

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## 1 INTRODUCTION

The intention of this document is to describe in detail all the Audio Data Formats that are supported by the Audio Device Class. This document is considered an integral part of *the Audio Device Class Specification*, although subsequent revisions of this document are independent of the revision evolution of the main *USB Audio Specification*. This is to easily accommodate the addition of new Audio Data Formats without impeding the core *USB Audio Specification*.

### 1.1 RELATED DOCUMENTS

- *Universal Serial Bus Specification*, Revision 2.0 (referred to in this document as the *USB Specification*). In particular, see Chapter 5, “USB Data Flow Model” and Chapter 9, “USB Device Framework.”
- Universal Serial Bus Device Class Definition for Audio Devices (referred to in this document as USB Audio Device Class).
- Universal Serial Bus Device Class Definition for Terminal Types (referred to in this document as USB Audio Terminal Types).
- ANSI S1.11-1986 standard.
- MPEG-1 standard ISO/IEC 111172-3 1993. (available from <http://www.iso.ch> )
- MPEG-2 standard ISO/IEC 13818-3 Feb. 20, 1997. (available from <http://www.iso.ch>)
- Digital Audio Compression Standard (AC-3), ATSC A/52A Aug. 20, 2001. (available from <http://www.atsc.org> )
- Windows Media Audio (WMA) specification. (available from <http://www.microsoft.com>)
- ANSI/IEEE-754 floating-point standard.
- ISO/IEC 60958 International Standard: *Digital Audio Interface and Annexes*.
- ISO/IEC 61937 standard.
- ITU G.711 standard.
- ETSI Specification TS 102 114, “DTS Coherent Acoustics; Core and Extensions”. (Available from [http://webapp.etsi.org/action%5CPU/20020827/ts\\_102114v010101p.pdf](http://webapp.etsi.org/action%5CPU/20020827/ts_102114v010101p.pdf))

### 1.2 TERMS AND ABBREVIATIONS

This section defines terms used throughout this document. For additional terms that pertain to the Universal Serial Bus, see Chapter 2, “Terms and Abbreviations,” in the *USB Specification*.

<b>AC-3</b>	Audio compression standard from Dolby Labs.
<b>Audio Slot</b>	A collection of audio subslots, each containing a PCM audio sample of a different physical audio channel, taken at the same moment in time.
<b>Audio Stream</b>	A concatenation of a potentially very large number of audio slots ordered according to ascending time.
<b>Audio Subslot</b>	Holds a single PCM audio sample.
<b>DTS</b>	Acronym for Digital Theater Systems.
<b>DVD</b>	Acronym for Digital Versatile Disc.
<b>Encoded Audio Bit Stream</b>	A concatenation of a potentially very large number of encoded audio frames, ordered according to ascending time.

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