



# SLOVENSKI STANDARD

## SIST EN 62379-2:2009

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**Skupni krmilni vmesnik za digitalne avdio in video izdelke, vključene v omrežje - 2.**  
**del: Avdio (IEC 62379-2:2008)**

Common control interface for networked digital audio and video products - Part 2: Audio  
(IEC 62379-2:2008)

Gemeinsame Steuerschnittstelle für netzwerkbetriebene digitale Audio- und Videogeräte  
- Teil 2: Audio (IEC 62379-2:2008)

Interface de commande commun destiné aux produits audio et vidéo numériques  
connectés en réseau - Partie 2: Audio (CEI 62379-2:2008)

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**Ta slovenski standard je istoveten z: EN 62379-2:2009**

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**ICS:**

33.160.01	Avdio, video in avdiovizualni sistemi na splošno	Audio, video and audiovisual systems in general
35.200	Vmesniška in povezovalna oprema	Interface and interconnection equipment

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 62379-2**

August 2009

ICS 33.160.01

English version

**Common control interface  
for networked digital audio and video products -  
Part 2: Audio  
(IEC 62379-2:2008)**

Interface de commande commun  
destiné aux produits audio et vidéo  
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für netzwerkbetriebene digitale  
Audio- und Videogeräte -  
Teil 2: Audio  
(IEC 62379-2:2008)

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This European Standard was approved by CENELEC on 2009-07-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 100/1405/FDIS, future edition 1 of IEC 62379-2, 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 was approved by CENELEC as EN 62379-2 on 2009-07-01.

The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2010-04-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2012-07-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 62379-2:2008 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62379-1	2007	Common control interface for networked digital audio and video products - Part 1: General	EN 62379-1	2007
AES3	2003	AES standard for digital audio engineering - Serial transmission format for two-channel linearly represented digital audio data	-	-
AES10	2008	AES recommended practice for digital audio engineering - Serial Multichannel Audio Digital Interface (MADI)	-	-
AES50	2005	AES standard for digital audio engineering - High-resolution multi-channel audio interconnection	-	-
ITU-T Recommendation G.711	<sup>-1)</sup>	Pulse code modulation (PCM) of voice frequencies	-	-
ITU-T Recommendation G.722	<sup>-1)</sup>	7 kHz audio-coding within 64 kbit/s	-	-
ITU-T Recommendation J.41	<sup>-1)</sup>	Characteristics of equipment for the coding of analogue high quality sound programme signals for transmission on 384 kbit/s channels	-	-
ITU-T Recommendation J.57	<sup>-1)</sup>	Transmission of digital studio quality sound signals over H1 channels	-	-

<sup>1)</sup> Undated reference.

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# INTERNATIONAL STANDARD

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Common control interface for networked digital audio and video products –  
Part 2: Audio

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**COMMON CONTROL INTERFACE FOR NETWORKED DIGITAL AUDIO AND VIDEO PRODUCTS –**
**Part 2: Audio****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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International Standard IEC 62379-2 has been prepared technical area 4: Digital system interfaces and protocols, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

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

FDIS	Report on voting
100/1405/FDIS	100/1445/RVD

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

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 maintenance result 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.

A bilingual version of this publication may be issued at a later date.

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## INTRODUCTION

IEC 62379 specifies the common control interface, a protocol for managing equipment which conveys audio and/or video across digital networks.

This part of IEC 62379 specifies those aspects that are specific to audio equipment.

An introduction to the common control interface is given in IEC 62739-1.

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# COMMON CONTROL INTERFACE FOR NETWORKED DIGITAL AUDIO AND VIDEO PRODUCTS –

## Part 2: Audio

### 1 Scope

This part of IEC 62379 specifies aspects of the common control interface of IEC 62379-1 that are specific to audio.

### 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.

AES3-2003, *AES standard for digital audio — Digital input-output interfacing — Serial transmission format for two-channel linearly represented digital audio data*

AES10-2003, *AES recommended practice for digital audio engineering – Serial multichannel audio digital interface (MADI)*

AES50-2005, *AES standard for digital audio engineering – High-resolution multi-channel audio interconnection (HRMAI)*

IEC 62379-1:2007, *Common control interface for networked audio and video products – Part 1: General*

ITU-T Recommendation G.711, *Pulse code modulation (PCM) of voice frequencies*

ITU-T Recommendation G.722, *7kHz audio-coding within 64 kbit/s*

ITU-T Recommendation J.41, *Characteristics of equipment for the coding of analogue high quality sound programme signals for transmission on 384 kbit/s channels*

ITU-T Recommendation J.57, *Transmission of digital studio quality sound signals over H1 channels*

### 3 Terms, definitions and abbreviations

For the purposes of this document, the terms and definitions given in IEC 62379-1 apply along with the following abbreviations.

#### 3.1 Abbreviations

**3.1.1**  
pulse code modulation  
PCM

**3.1.2**  
motion pictures expert group  
MPEG

### 3.1.3 advanced audio coding AAC

## 4 Audio format definitions

### 4.1 Audio signal format definitions

At any point in the audio signal chain, the audio data will be in a particular format. For management purposes, the format shall be identified by an object identifier, either a “common control interface standard” object identifier defined in this standard or an object identifier defined elsewhere.

NOTE Permitting audio format identifiers to be defined outside this standard allows use of proprietary formats within the standard protocol and also allows industry standard formats to emerge that may eventually be incorporated into future revisions of this standard.

#### 4.1.1 Audio parameters

##### 4.1.1.1 General

The definitions in 4.1.2 make reference to parameters which provide additional information about the format. These parameters shall be mapped to sub-identifier values as specified in the other subclauses of 4.1.1. Any parameter may be unspecified.

The sub-identifier values shall be appended to the object identifiers as additional arcs, in the order in which the parameters are listed in the relevant subclause of 4.1.2; except that if a parameter is unspecified and either it is the last parameter or all subsequent parameters are also unspecified, then it shall be omitted.

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NOTE For all parameters, “unspecified” is coded as zero, so this rule ensures that the OID does not end with a zero arc.

EXAMPLE: If the last two parameters are bit depth and sampling frequency, then 16-bit 48kHz would be coded as .16.48000, 16-bit (with sampling frequency unspecified) as .16, and 48kHz (with bit depth unspecified) as .0.48000.

##### 4.1.1.2 Channel arrangement

The sub-identifier for channel arrangement shall be a value of the following type:

```
ChannelArrangement ::= INTEGER {
    unspecified          (0),
    discreteMono        (1),
    stereo               (2),
    jointStereo         (3),
    surround             (4),
    surroundWithDownmix (5)
} (unspecified.. surroundWithDownmix)
```

`discreteMono` shall indicate that each channel (if there is more than one) is a separate audio signal.

`stereo` should only be used with an even number of channels, and shall indicate that each pair of channels (if there is more than one pair) is a separate stereo audio signal, with the first channel of the pair being the left channel.

`jointStereo` should only be used with an even number of channels, and shall indicate that each pair of channels (if there is more than one pair) is a separate stereo audio signal, with the first channel of the pair being the M channel and the second the S channel.

`surround` and `surroundWithDownmix` should only be used with 3 to 8 channels (inclusive). Each shall indicate that the first six channels contain left, right, centre, low frequency effects, left surround, and right surround respectively. `surround` shall indicate that the next two channels contain left and right channels (respectively) of a stereo signal suitable for matrix decoding. `surroundWithDownmix` shall indicate that the next two channels contain left and right channels (respectively) of a stereo downmix.

Where more than one arrangement can be used to describe a format, the smallest applicable value should be used.

EXAMPLE 1 A single stereo pair (2 channels) could be described by values `stereo` (2), `surround` (4), or `surroundWithDownmix` (5). The smallest of these values, i.e. 2, should be used.

EXAMPLE 2 Surround sound with no accompanying stereo signal (6 channels) could be described by values `surround` (4), or `surroundWithDownmix` (5). The smaller of these values, i.e. 4, should be used.

#### 4.1.1.3 Number of channels

The sub-identifier for number of channels shall be a value of the following type:

```
NumberChannels ::= INTEGER
-- An integer representing the number of audio channels
-- A value of zero shall indicate unspecified.
```

#### 4.1.1.4 Bit depth

The sub-identifier for bit depth shall be a value of the following type:

```
BitDepth ::= INTEGER
-- An integer representing the audio bit depth in bits per sample.
-- A value of zero shall indicate unspecified.
```

#### 4.1.1.5 Sampling frequency

The sub-identifier for sampling frequency shall be a value of the following type:

```
SamplingFrequency ::= INTEGER
-- An integer representing the audio sampling frequency in Hz
-- A value of zero shall indicate unspecified.
```

#### 4.1.1.6 Bit rate

The sub-identifier for bit rate shall be a value of the following type:

```
BitRate ::= INTEGER
-- An integer representing the bit rate of the encoded signal in bits per
-- second.
-- A value of zero shall indicate unspecified.
```

### 4.1.2 Audio signal formats

Audio signal formats shall be rooted at the following location in the MIB tree:

```
iec62379          OBJECT IDENTIFIER ::= { iso(1) standard(0) 62379 }
audioFormat      OBJECT IDENTIFIER ::= { iec62379 audio(2) format(2) }
audioSignalFormat OBJECT IDENTIFIER ::= { audioFormat signal(1) }
```

The following definitions shall be used to identify the specified formats.