



# SLOVENSKI STANDARD

## SIST EN 61606-4:2007

01-marec-2007

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**Avdio in avdiovizualna oprema - Digitalni avdio deli - Osnovne merilne metode zvokovnih karakteristik - 4. del: Osebni računalnik (IEC 60606-4:2005)**

Audio and audiovisual equipment - Digital audio parts - Basic measurement methods of audio characteristics -- Part 4: Personal computer

Audio- und Audiovisuelle Geräte - Digitale Tonteile - Grundlegende Messverfahren der Audio-Eigenschaften -- Teil 4: Personal-Computer

Equipements audio et audiovisuels - Parties audionumériques - Méthodes fondamentales pour la mesure des caractéristiques audio -- Partie 4: Ordinateur personnel

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**Ta slovenski standard je istoveten z: EN 61606-4:2006**

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**ICS:**

33.160.30	Avdio sistemi	Audio systems
35.160	Mikroprocesorski sistemi	Microprocessor systems

**SIST EN 61606-4:2007**

**en,de**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61606-4**

December 2006

ICS 35.020; 33.160.30

English version

**Audio and audiovisual equipment -  
Digital audio parts -  
Basic measurement methods of audio characteristics  
Part 4: Personal computer  
(IEC 61606-4:2005)**

Equipements audio et audiovisuels -  
Parties audionumériques -  
Méthodes fondamentales pour  
la mesure des caractéristiques audio  
Partie 4: Ordinateur personnel  
(CEI 61606-4:2005)

Audio- und Audiovisuelle Geräte -  
Digitale Tonteile -  
Grundlegende Messverfahren der  
Audio-Eigenschaften  
Teil 4: Personal-Computer  
(IEC 61606-4:2005)

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SIST EN 61606-4:2007

This European Standard was approved by CENELEC on 2006-12-01. 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 two official versions (English and 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

**CENELEC**

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of the International Standard IEC 61606-4:2005, prepared by IEC TC 100, Audio, video and multimedia systems and equipment, was submitted to the formal vote and was approved by CENELEC as EN 61606-4 on 2006-12-01 without any modification.

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) 2007-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2009-12-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61606-4:2005 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 60038 (mod)	- <sup>1)</sup>	IEC standard voltages <sup>2)</sup>	HD 472 S1 + corr. February + A11	1989 <sup>3)</sup> 2002 1995
IEC 60268-2	- <sup>1)</sup>	Sound system equipment Part 2: Explanation of general terms and calculation methods	HD 483.2 S2	1993 <sup>3)</sup>
IEC 61606-1	- <sup>1)</sup>	Audio and audiovisual equipment - Digital audio parts - Basic measurement methods of audio characteristics Part 1: General	EN 61606-1	2004 <sup>3)</sup>
IEC 61606-2	- <sup>1)</sup>	Audio and audiovisual equipment - Digital audio parts - Basic measurement methods of audio characteristics Part 2: Consumer use	EN 61606-2	2004 <sup>3)</sup>
IEC 61672-1	- <sup>1)</sup>	Electroacoustics - Sound level meters Part 1: Specifications	EN 61672-1	2003 <sup>3)</sup>

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

<sup>2)</sup> The title of HD 472 S1 is: Nominal voltages for low voltage public electricity supply systems.

<sup>3)</sup> Valid edition at date of issue.

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# INTERNATIONAL STANDARD

**IEC**  
**61606-4**

First edition  
2005-12

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## Audio and audiovisual equipment – Digital audio parts – Basic measurement methods of audio characteristics –

### Part 4: Personal computer

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**AUDIO AND AUDIOVISUAL EQUIPMENT –  
DIGITAL AUDIO PARTS –  
BASIC MEASUREMENT METHODS  
OF AUDIO CHARACTERISTICS –**

**Part 4: Personal computer**

**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 61606-4 has been prepared by IEC technical committee 100: Audio, video and multimedia equipment and systems.

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

CDV	Report on voting
100/952/CDV	100/1030/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.

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

IEC 61606 consists of the following parts under the general title *Audio and audiovisual equipment – Digital audio parts – Basic measurement methods of audio characteristics*:

Part 1: General

Part 2: Consumer use

Part 3: Professional use<sup>1</sup>

Part 4: Personal computer

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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<sup>1</sup> Under consideration.

# AUDIO AND AUDIOVISUAL EQUIPMENT – DIGITAL AUDIO PARTS – BASIC MEASUREMENT METHODS OF AUDIO CHARACTERISTICS –

## Part 4: Personal computer

### 1 Scope

This part of IEC 61606 specifies the basic measurement methods of a linear PCM signal for an audio part of personal computers (PCs) and applies to both desktop and portable computers. The common measuring conditions and methods are described in IEC 61606-1. Specific conditions and methods of measurement for PCs are given in this standard.

NOTE 1 The methods described are mostly based on sampling frequencies from 8 kHz to 192 kHz and bit length from 8 bit to 24 bit.

NOTE 2 This standard describes tests for equipment which has digital input with analogue output and analogue input with digital output. Digital input data are provided from an internal HDD or other memory media and output digital data are recorded to an internal HDD or main memories.

NOTE 3 The methods specified in this standard are not applicable to systems incorporating bit-rate reduced digital audio signals that have data loss or to 1-bit signals. This part does not apply to analogue input with analogue output and digital input with digital output as described in IEC 61606-1.

NOTE 4 When a CPU in a PC is overloaded by tasks other than those for audio input/output, the PC may fail to record/reproduce the whole audio data. This standard applies only to the measurement in which input/output data are recorded/reproduced without such missing data. The performance of a PC with missing audio data may be evaluated by the short-term distortion measurement although such evaluation is not within the scope of this standard.

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### 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 60038, *IEC standard voltages*

IEC 60268-2, *Sound system equipment – Part 2: Explanation of general terms and calculation methods*

IEC 61606-1, *Audio and audiovisual equipment – Digital audio parts – Basic measurement methods of audio characteristics – Part 1: General*

IEC 61606-2, *Audio and audiovisual equipment – Digital audio parts – Basic measurement methods of audio characteristics – Part 2: Consumer use*

IEC 61672-1, *Electroacoustics – Sound level meters – Part 1: Specifications*

### 3 Terms, definitions and abbreviated terms

#### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61606-1, as well as the following, apply.