SLOVENSKI STANDARD
SIST EN 61603-2:1999

01-april-1999

Transmission of audio and/or video and related signals using infra-red radiation -- Part 2: Transmission systems for audio wide band and related signals (IEC 61603-2:1997)

Transmission of audio and/or video and related signals using infra-red radiation -- Part 2: Transmission systems for audio wide band and related signals

Übertragung von Ton- und/oder Bildsignalen und verwandten Signalen mit Infrarot-Strahlung -- Teil 2: Übertragungssysteme für Breitband-Audio- und verwandte Signale

Transmission de signaux audio et/ou vidéo et de signaux similaires au moyen du rayonnement infrarouge -- Partie 2: Systèmes de transmission audio large bande et signaux similaires

Ta slovenski standard je istoveten z: **EN 61603-2:1997**

ICS:

33.160.99	Druga avdio, video in avdiovizuelna oprema	Other audio, video and audiovisual equipment

SIST EN 61603-2:1999 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61603-2

May 1997

ICS 33.160.99

Supersedes HD 455 S1:1985

Descriptors: Sound transmission, electroacoustic equipment, infrared radiation, household appliances, specification, measurements, characteristics, performance evaluation, electromagnetic compatibility, marking

English version

Transmission of audio and/or video and related signals using infra-red radiation Part 2: Transmission systems for audio wide band and related signals (IEC 61603-2:1997)

Transmission de signaux audio et/ou vidéo et de signaux similaires au moyen du rayonnement infrarouge
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(CEI 61603-2:1997)

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Teil 2: Übertragungssysteme für Breitband-Audio- und verwandte Signale
(IEC 61603-2:1997)

This European Standard was approved by CENELEC on 1997-03-11. 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.

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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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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

Ref. No. EN 61603-2:1997 E

Foreword

The text of document 100C/37/FDIS, future edition 1 of IEC 61603-2, prepared by SC 100C, Audio, video and multimedia subsystems and equipment, 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 61603-2 on 1997-03-11.

This European Standard supersedes HD 455 S1:1985.

This standard is to be used in conjunction with ENV 50185-1:1995.

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) 1997-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1997-12-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61603-2:1997 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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

Publication	Year	Title	EN/HD	Year
IEC 68-2	series	Environmental testing Part 2: Tests	EN 60068-2 HD 323.2	series series
IEC 169-8	1978	Radio-frequency connectors Part 8: R.F. coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with bayonet lock Characteristic impedance 50 ohms (Type BNC)	-	-
IEC 169-24	1991	Part 24: Radio-frequency coaxial connectors with screw coupling, typically for use in 75 ohm cable distribution systems (Type F)	EN 60169-24	1993
IEC 268-15	1996[1)]	Sound system equipment Part 15: Preferred matching values for the interconnection of sound system components	-	-
IEC 315-4	1982	Methods of measurement on radio receivers for various classes of emission Part 4: Radio-frequency measurements on receivers for frequency modulated sound-broadcasting emissions	-	-
IEC 581-2	1986	High fidelity audio equipment and systems Minimum performance requirements Part 2: FM radio tuners	-	-
IEC 581-8	1986	Part 8: Combination equipment	-	-
IEC 933	series	Audio, video and audiovisual systems Interconnections and matching values	EN 60933	series

1) IEC 268-15:1987 + A1:1989 + A2:1990 + A3:1991 are harmonized as HD 483.15 S4:1992.

Publication	Year	Title	EN/HD	Year
IEC 1147	1993	Uses of infra-red transmission and the prevention or control of interference between systems	-	-
IEC 61603-1	1997	Transmission of audio and/or video and related signals using infra-red radiation Part 1: General	EN 61603-1	1997
CISPR 13	1996[2)]	Limits and methods of measurement of radio interference characteristics of sound and television broadcast receivers and associated equipment	-	-
CISPR 20	1996[3)]	Limits and methods of measurement of immunity characteristics of sound and television broadcast receivers and associated equipment	-	-
ITU-R Recommendation 412-6	1994	Planning standards for FM sound broadcasting at VHF	-	-
ITU-R Recommendation 641	1994	Determination of radio-frequency protection ratios for frequency-modulated sound broadcasting	-	-
ITU-R Recommendation 704	1994	Characteristics of FM sound broadcasting reference receivers for planning purposes	-	-

2) EN 55013:1990 (CISPR 13:1975 + A1:1983, mod.) + A12:1994 + A13:1996 applies.
The title of EN 55013 is: *Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment.*

3) Instead of CISPR 20:1996, EN 55020:1994 + corr. Jan. 1996 + A11:1996, *Electromagnetic immunity of broadcast receivers and associated equipment*, applies.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI IEC 61603-2

Première édition
First edition
1997-03

Transmission de signaux audio et/ou vidéo et de signaux similaires au moyen du rayonnement infrarouge –

Partie 2: Systèmes de transmission audio large bande et signaux similaires

Transmission of audio and/or video and related signals using infra-red radiation –

Part 2: Transmission systems for audio wide band and related signals

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

TRANSMISSION OF AUDIO AND/OR VIDEO AND RELATED SIGNALS USING INFRA-RED RADIATION –

Part 2: Transmission systems for audio wide band and related signals

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61603-2 has been prepared by subcommittee 100C: Equipment and systems in the field of audio, video and audiovisual engineering, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

This standard should be read in conjunction with IEC 1147 (technical report).

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

FDIS	Report on voting
100C/37/FDIS	100C/93/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 standard supersedes IEC 764 and consists of six parts:

Part 1: General
Part 2: Transmission systems for audio wide band and related signals
Part 3: Transmission systems for audio signals for conference and similar systems
Part 4: Transmission systems for low speed remote control
Part 5: Transmission systems for high speed data and remote control
Part 6: Transmission systems for video and audiovisual signals of high quality

TRANSMISSION OF AUDIO AND/OR VIDEO AND RELATED SIGNALS USING INFRA-RED RADIATION –

Part 2: Transmission systems for audio wide band and related signals

1 General

1.1 *Scope*

This part of IEC 61603 gives methods for measuring and specifying those characteristics of wide band audio IR transmission systems not covered by part 1 of this standard (see also 3.1). It allows systems which make different economic use of the available bandwidth to be described in order that conclusions regarding interference and compatibility can be drawn. Interface (matching) values and other system characteristics are also covered. This part of IEC 61603 replaces chapter 1 of IEC 764, which covers only two carrier frequencies for analogue audio signals, and which does not cover digital audio.

1.2 *Normative references*

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61603. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 61603 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 68-2: 1990, *Environmental testing – Part 2: Tests*

IEC 169-8: 1978, *Radio-frequency connectors – Part 8: R.F. coaxial connectors with inner diameter of outer conductor 6,5 mm (0,256 in) with bayonet lock – Characteristic impedance 50 ohms (type BNC)*

IEC 169-24: 1991, *Radio-frequency connectors – Part 24: Radio-frequency coaxial connextors with screw coupling, typically for use in 75 ohm cable distribution systems (type F)*

IEC 268-15: 1996, *Sound system equipment – Part 15: Preferred matching values for the interconnection of sound system components*

IEC 315-4: 1982, *Methods of measurement on radio receivers of various classes of emission – Part 4: Radio-frequency measurements on receivers for frequency modulated sound-broadcasting emissions*

IEC 581: *High fidelity audio equipments and systems – Minimum performance requirements*

IEC 581-2: 1986, *High fidelity audio equipments and systems – Minimum performance requirements – Part 2: FM radio tuners*

IEC 581-8: 1986, *High fidelity audio equipments and systems – Minimum performance requirements – Part 8: Combination equipment*

IEC 933: *Audio, video and audiovisual systems – Interconnections and matching values*

IEC 1147: 1993, *Uses of infra-red transmission and the prevention or control of interference between systems*

IEC 61603-1: 1997, *Transmission of audio and/or video or related signals using infra-red radiation – Part 1: General*

CISPR 13: 1996, *Limits and methods of measurement of radio interference characteristics of sound and television broadcast receivers and associated equipment*

CISPR 20: 1996, *Limits and methods of measurement of immunity characteristics of sound and television broadcast receivers and associated equipment*

ITU-R Recommendation 412-6: 1994, *Planning standards for FM sound broadcasting at VHF*

ITU-R Recommendation 641: 1994, *Determination of radio-frequency protection ratios for frequency-modulated sound broadcasting*

ITU-R Recommendation 704: 1994, *Characteristics of FM sound broadcasting reference receivers for planning purposes.*

1.3 *Definitions*

For the purpose of this part of IEC 1603, the definitions given in part 1 of this standard apply, together with the following.

audio wide band: Audio signal whose bandwidth is sufficient for the reproduction to resemble a natural sound.

NOTE – The definition includes the high fidelity specification given in IEC 581, requiring a minimum upper frequency of 12,5 kHz (system response loss ≤ –5 dB, see IEC 581-8). It further includes audio signals of digital origin with upper limit frequencies of about 20 kHz.

2 Explanation of terms and general information

2.1 *Transmitter*

A transmitter (link A-B in figure 1) has an audio signal input (analogue or digital), and a special form of electrical output to feed a radiator.

2.2 *Combined transmitter and radiator*

A combined transmitter and radiator (link A-C in figure 1) does not have an electrical output, and interface values therefore apply only at the input.

2.3 *Radiator*

A radiator (link B-C in figure 1) may be combined with other functions, such as a transmitter. At present, radiators normally consist of a number of IREDs employing different technologies. These devices have peak emissions in the wavelength range 830 nm to 950 nm, and an IR bandwidth of about 100 nm.