Väikesevõimsuseliste elektroonika- ja elektriseadmete hindamine nende vastavuse järgi inimesele toimivate elektromagnetväljade (10 MHz kuni 300 GHz) lubatavatele piirväärtustele

Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 62479:2010 sisaldab Euroopa standardi EN 62479:2010 ingliskeelset teksti.	This Estonian standard EVS-EN 62479:2010 consists of the English text of the European standard EN 62479:2010.
Standard on kinnitatud Eesti Standardikeskuse 31.10.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.10.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 17.09.2010.	Date of Availability of the European standard text 17.09.2010.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 17.220.20, 35.020

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62479

September 2010

ICS 17.220.20; 35.020

Supersedes EN 50371:2002

English version

Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)

(IEC 62479:2010, modified)

Evaluation de la conformité des appareils électriques et électroniques de faible puissance aux restrictions de base concernant l'exposition des personnes aux champs électromagnétiques (10 MHz à 300 GHz)
(CEI 62479:2010, modifiée)

Beurteilung der Übereinstimmung von elektronischen und elektrischen Geräten kleiner Leistung mit den Basisgrenzwerten für die Sicherheit von Personen in elektromagnetischen Feldern (10 MHz bis 300 GHz)
(IEC 62479:2010, modifiziert)

This European Standard was approved by CENELEC on 2010-09-01. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, 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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 62479:2010 E

Foreword

The text of document 106/198/FDIS, future edition 1 of IEC 62479, prepared by IEC TC 106, Methods for the assessment of electric, magnetic and electromagnetic fields associated with human exposure, was submitted to the IEC-CENELEC parallel vote.

A draft amendment to the European Standard was prepared by the Technical Committee CENELEC TC 106X, Electromagnetic fields in the human environment. It was submitted to the Unique Acceptance Procedure.

The combined texts were approved by CENELEC as EN 62479 on 2010-09-01.

This European Standard supersedes EN 50371:2002.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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)	2011-09-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2013-09-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62479:2010 was approved by CENELEC as a European Standard with agreed common modifications as given below.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

ISO/IEC 17025:2005 NOTE Harmonized as EN ISO/IEC 17025:2005 (not modified).

COMMON MODIFICATIONS

2 Normative references

Add:

Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz), Official Journal L 199 of 30 July 1999.

3 Terms and definitions

3.4
basic restriction

Add the following note:

NOTE Basic restrictions can be found in Annex II (Table 1) of the Council Recommendation 1999/519/EC.

4 Conformity assessment methods

4.1 General considerations

Add before the first paragraph:

The electronic and electro technical apparatus shall comply with the basic restriction as specified in Annex II of Council Recommendation 1999/519/EC.

NOTE 1 The Council Recommendation 1999/519/EC is based on the ICNIRP guidelines [1] with some additional restrictions.

NOTE 2 The time averaging in the EU-Recommendation applies.

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.

Publication	Year	Title	EN/HD	Year
IEC 62311 (mod)	-	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)	EN 62311	-

CONTENTS

ASSESMENT OF THE COMPLIANCE OF LOW-POWER ELECTRONIC AND ELECTRICAL EQUIPMENT WITH THE BASIC RESTRICTIONS RELATED TO HUMAN EXPOSURE TO ELECTROMAGNETIC FIELDS (10 MHz to 300 GHz)

1 Scope

This International Standard provides simple conformity assessment methods for low-power electronic and electrical equipment to an exposure limit relevant to electromagnetic fields (EMF). If such equipment cannot be shown to comply with the applicable EMF exposure requirements using the methods included in this standard for EMF assessment, then other standards, including IEC 62311 or other (EMF) product standards, may be used for conformity assessment.

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 62311, *Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz – 300 GHz)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
available antenna power
the maximum power, averaged over a time interval equal to the averaging time, supplied to the antenna feed line that can be theoretically delivered by a source having an impedance of positive real part to a directly connected load when the impedance of the load is widely varied

NOTE 1 The available antenna power is obtained when the resistance of the load is equal to that of the source and its reactance is equal in magnitude but of opposite sign. However, other scenarios are possible e.g. if the PA monitors the current rather than the actual power, a changing antenna impedance (when DUT is operated close to the body) might actually cause a higher output power than the matched load. Then, a push-pull analysis with varied realistic loads (according to antenna impedance in the vicinity of the body) should be performed.

NOTE 2 In some cases, conditions such as overheating or overvoltage prevent the available antenna power from being obtained.

NOTE 3 Time average shall be taken during continuous or maximum duty cycle transmission at maximum power to the extent possible for a given technology.

NOTE 4 Adapted from IEC 60050-702:1992 [11][1)], 702-07-10.

NOTE 5 Antenna feed line is defined by IEC 60050-712:1992 [12], 712-06-01.

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1) Figures in square brackets refer to the Bibliography.