Erialastandard väikevõimsusliku elektroonilise ja elektrilise aparatuuri vastavusest põhipiirangutele seoses inimese viibimisega elektromagnetiliste väljade (10 MHz – 300 GHz) toime all. Üldavalik

Generic standard to demonstrate the compliance of low power electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (10 MHz - 300 GHz) - General public

EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 50371:2002 sisaldab Euroopa standardi EN 50371:2002 ingliskeelset teksti. Käesolev dokument on jõustatud 18.12.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 50371:2002 consists of the English text of the European standard EN 50371:2002. This document is endorsed on 18.12.2002 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This generic standard applies to low power electronic and electrical apparatus for which no dedicated product- or product family standard regarding human exposure to electromagnetic fields applies. The frequency range covered is 10 MHz to 300 GHz.The object of this standard is to demonstrate the compliance of such apparatus with the basic restrictions on exposure of the general public to electric, magnetic and electromagnetic fields and contact current.	**Scope:** This generic standard applies to low power electronic and electrical apparatus for which no dedicated product- or product family standard regarding human exposure to electromagnetic fields applies. The frequency range covered is 10 MHz to 300 GHz.The object of this standard is to demonstrate the compliance of such apparatus with the basic restrictions on exposure of the general public to electric, magnetic and electromagnetic fields and contact current.

ICS 13.280

Võtmesõnad: electromagnetic fields, electroni, exposure, generic specification, limits (mathematics), low voltage equipment, magnetic fields, mathematics, persons, protection of persons, safety, safety requirements, specification (approval), specifications, telecommunication

EUROPEAN STANDARD **EN 50371**

NORME EUROPÉENNE

EUROPÄISCHE NORM March 2002

ICS 13.280

English version

Generic standard to demonstrate the compliance of low power electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (10 MHz - 300 GHz) - General public

Norme générique pour démontrer la conformité des appareils électriques et électroniques de faible puissance aux restrictions de base concernant l'exposition des personnes aux champs électromagnétiques (10 MHz - 300 GHz) - Public

Fachgrundnorm zum Nachweis 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) - Allgemeine Öffentlichkeit

This European Standard was approved by CENELEC on 2001-11-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, 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 50371:2002 E

Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 106X, Electromagnetic fields in the human environment.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50371 on 2001-11-01.

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)	2002-10-01
- latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2004-10-01

Annexes designated "informative" are given for information only.
In this standard, annex A is informative.

Contents

1 Scope

This generic standard applies to low power electronic and electrical apparatus for which no dedicated product- or product family standard regarding human exposure to electromagnetic fields applies.

The frequency range covered is 10 MHz to 300 GHz.

The object of this standard is to demonstrate the compliance of such apparatus with the basic restrictions on exposure of the general public to electric, magnetic and electromagnetic fields and contact current.

2 Normative references

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).

EN ISO/IEC 17025 1999 General requirements for the competence of testing and calibration laboratories.

Council Recommendation 1999/519/EC of 12 July 1999: 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

For the purposes of this European Standard, the following definitions apply.

3.1
low power apparatus
a low power electronic and electrical apparatus is an apparatus where the average emitted power over the average time defined in 3.2 is equal to or less than 20 mW. The emitted peak power shall be less than 20 Watts. For pulses of duration less than 30 microseconds and frequencies between 300 MHz and 10 GHz, the average power should be less than 20 x prf mW (prf in Hz)

NOTE The term prf is defined in 3.9.

3.2
averaging time (t_{avg})
the appropriate time over which exposure is averaged for purposes of determining compliance. For frequencies where SAR is the relevant basic restriction, this is 6 minutes in the frequency range from 10 MHz to 10 GHz. In the frequency range from 10 GHz to 300 GHz the averaging time is equal to $68/f^{1,05}$ minutes (where f is in GHz)

3.3
basic restriction
restrictions on exposure to time-varying electric, magnetic, and electromagnetic fields which are based directly on established health effects and biological considerations are termed “basic restrictions”. Depending upon the frequency of the field, the physical quantities used to specify these restrictions are specific absorption rate (SAR), and power density

3.4
reference levels
levels of field strength and currents that can be compared with corresponding measured or calculated values. The reference levels are derived from the basic restrictions using worst-case assumptions about exposure. If the reference levels are met, then the basic restrictions will be complied with, but if the reference levels are exceeded, it does not necessarily mean that the basic restrictions will not be met