Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110 MHz - 40 GHz) Occupational

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EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 50384:2003 sisaldab Euroopa standardi EN 50384:2002 ingliskeelset teksti. Käesolev dokument on jõustatud 05.02.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 50384:2003 consists of the English text of the European standard EN 50384:2002. This document is endorsed on 05.02.2003 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 product standard applies to radio base stations and fixed terminal stations for wireless telecommunication systems as defined in Clause 3, operating in the frequency range 110 MHz to 40 GHz	**Scope:** This product standard applies to radio base stations and fixed terminal stations for wireless telecommunication systems as defined in Clause 3, operating in the frequency range 110 MHz to 40 GHz

ICS 17.220.20, 33.070.01

Võtmesõnad: electromagnetic radia, environments, laboratory t, limits (mathematics), magnetic fields, mathematics, measurement, mobile radio systems, operating stations, probe, product standards, radiation action, radio equipment, telecommunication, wireless, working places

EUROPEAN STANDARD **EN 50384**

NORME EUROPÉENNE

EUROPÄISCHE NORM August 2002

ICS 17.220.20; 33.070.01

English version

Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110 MHz - 40 GHz) – Occupational

Norme produit pour la démonstration de la conformité des stations de base radio et des stations terminales fixes pour les radiotélécommunications, aux restrictions de base et aux niveaux de référence relatifs à l'exposition de l'homme aux champs électromagnétiques (110 MHz - 40 GHz) – Application aux travailleurs

Produktnorm zur Konformitätsüberprüfung von Mobilfunk-Basisstationen und stationären Teilnehmergeräten für schnurlose Telekommunikationsanlagen im Hinblick auf die Basisgrenz- und Referenzwerte bezüglich der Exposition von Personen gegenüber elektromagnetischen Feldern (110 MHz bis 40 GHz) – Berufliche Exposition

This European Standard was approved by CENELEC on 2002-07-02. 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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, 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 50384:2002 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 50384 on 2002-07-02.

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)	2003-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2005-07-01

Contents

1 Scope

This product standard applies to radio base stations and fixed terminal stations for wireless telecommunication systems as defined in Clause 3, operating in the frequency range 110 MHz to 40 GHz.

The object of this standard is to demonstrate the compliance of such product with the basic restrictions (directly or indirectly via compliance with reference levels) related to occupational exposure to radio frequency electromagnetic fields.

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 50383, *Basic standard for the calculation and measurement of human exposure to electromagnetic fields from radio base stations and fixed terminal stations for wireless telecommunication systems (110 MHz – 40 GHz)*

International Commission on Non-Ionizing Radiation Protection (1998), Guidelines for limiting exposure in time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz). Health Physics 74, 494-522.

3 Definitions

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

3.1
basic restrictions
restrictions on exposure to time-varying electric, magnetic, and electromagnetic fields that are based directly on established health effects. In the frequency range from 110 MHz to 10 GHz, the physical quantity used is the specific absorption rate. Between 10 GHz and 40 GHz, the physical quantity is the power density

3.2
base station
in this product standard, the term “base station” (BS) covers radio base stations as well as fixed terminal stations intended for use in wireless telecommunications networks. A base station comprises the hardware, including tranceivers, necessary to transmit and receive radio signals. Base stations with integrated antennas, base stations with connectors for external antennas and base stations intended for use with external antennas not supplied by the same manufacturer are covered

3.3
compliance boundary
a compliance boundary defines a volume outside which any point of investigation is deemed to be compliant

3.4
continuous exposure
exposure for a duration exceeding the averaging time