Irish Standard
I.S. EN 50476:2008

Product standard to demonstrate the compliance of broadcast station transmitters with the reference levels and the basic restrictions related to public exposure to radio frequency electromagnetic fields (3 MHz - 30 MHz)

I.S. EN 50476:2008

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

EN 50476

June 2008

ICS 13.280

English version

Product standard to demonstrate the compliance of broadcast station transmitters with the reference levels and the basic restrictions related to public exposure to radio frequency electromagnetic fields (3 MHz - 30 MHz)

Norme produit pour démontrer
la conformité des émetteurs de service
de radiodiffusion, aux niveaux
de référence et aux restrictions de base
pour l'exposition du public,
dans les bandes HF (3 MHz à 30 MHz)

Produktnorm zum Nachweis
der Übereinstimmung von
Rundfunksendern mit den Referenzwerten
und den Basisgrenzwerten bezüglich
der Exposition der Allgemeinbevölkerung
gegenüber hochfrequenten
elektromagnetischen Feldern
(3 MHz bis 30 MHz)

This European Standard was approved by CENELEC on 2008-04-01. 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, 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

Ref. No. EN 50476:2008 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 formal vote and was approved by CENELEC as EN 50476 on 2008-04-01.

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)	2009-04-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2011-04-01

Contents

1 Scope

This standard applies to short wave broadcast transmitters operating in the frequency range 3 MHz to 30 MHz.

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

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.

EN 50475 , *Basic standard for the calculation and the measurement of human exposure to electromagnetic fields from broadcasting service transmitters in the HF bands (3 MHz - 30 MHz)*

3 Terms and definitions

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

3.1
antenna
device that serves as a transducer between a guided wave (e.g. coaxial cable) and a free space wave, or vice versa

3.2
basic restriction
restrictions of 1999/519/EC [1] on exposure to time-varying electric, magnetic, and electromagnetic fields that are based directly on established health effects

3.3
broadcasting service
radio communication service in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, television transmissions or other types of transmission

3.4
compliance distance
minimum distance from the antenna to a point of investigation where field level is deemed to be compliant to the limits

3.5
compliance boundary
surface around the antenna outside of which all field levels are deemed to be compliant to the limits

3.6
contact current (IC)
contact current between a person and an object exposed to the field, is expressed in amperes (A). A conductive object in an electric field can be charged by the field