

Determination of workers' exposure to electromagnetic fields and assessment of risk at a broadcast site

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 50496:2018 sisaldab Euroopa standardi EN 50496:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 50496:2018 consists of the English text of the European standard EN 50496:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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## English Version

**Determination of workers' exposure to electromagnetic fields and  
assessment of risk at a broadcast site**

Détermination de l'exposition des travailleurs aux champs  
électromagnétiques et évaluation des risques sur un site de  
radiodiffusion

Ermittlung der Exposition von Arbeitnehmern gegenüber  
elektromagnetischen Feldern und Bewertung des Risikos  
am Standort eines Rundfunksenders

This European Standard was approved by CENELEC on 2017-12-25. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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## European foreword

This document (EN 50496:2018) has been prepared by CLC/TC 106X "Electromagnetic fields in the human environment".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2018-12-25
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2020-12-25

This document supersedes EN 50496:2008.

The main changes included in the EN 50496:2018 with respect to EN 50496:2008 are consequential to the replacement of Directive 2004/40/EC by Directive 2013/35/EU.

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

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

## 1 Scope

This European Standard provides methods for assessing compliance with the requirements of the Directive 2013/35/EU at a site operating one or more broadcast transmitters.

This standard covers the frequency range up to 40 GHz.

Users of this standard are invited to consult the national legislation in order to identify the national regulations and requirements. These national regulations and requirements can have additional requirements that are not covered by this standard.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 50413, *Basic standard on measurement and calculation procedures for human exposure to electric, magnetic and electromagnetic fields (0 Hz - 300 GHz)*

EN 50420, *Basic standard for the evaluation of human exposure to electromagnetic fields from a stand alone broadcast transmitter (30 MHz - 40 GHz)*

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)*

EN 62226-2-1, *Exposure to electric or magnetic fields in the low and intermediate frequency range - Methods for calculating the current density and internal electric field induced in the human body - Part 2-1: Exposure to magnetic fields - 2D models (IEC 62226-2-1)*

EN 50527-1, *Procedure for the assessment of the exposure to electromagnetic fields of workers bearing active implantable medical devices — Part 1: General*

EN 50527-2-1, *Procedure for the assessment of the exposure to electromagnetic fields of workers bearing active implantable medical devices — Part 2-1: Specific assessment for workers with cardiac pacemakers*

EN 50647, *Basic standard for the evaluation of workers' exposure to electric and magnetic fields from equipment and installations for the production, transmission and distribution of electricity*

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)

Directive 2013/35/EU of the European parliament and of the council of 26 June 2013 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields) (20th individual Directive within the meaning of Article 16 of Directive 89/391/EEC)