

INTERNATIONAL STANDARD

NORME INTERNATIONALE



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

Évaluation des équipements électroniques et électriques en relation avec les restrictions d'exposition humaine aux champs électromagnétiques (0 Hz à 300 GHz)



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CONTENTS

FOREWORD	4
1 Scope	6
2 Normative references	6
3 Terms, definitions and abbreviated terms	6
3.1 Terms and definitions	6
3.2 Abbreviated terms	10
4 Compliance criteria	10
5 Performance of assessments	11
5.1 Assessment methods	11
5.2 Frequency range under assessment for unintentional radiation	13
5.3 General procedure for the assessment of equipment	13
6 Uncertainty	17
6.1 General	17
6.2 Consideration of uncertainty for compliance	17
7 Considerations on sources with multiple frequencies and non-uniformity of fields	19
7.1 Sources with multiple frequencies	19
7.2 Exposure to non-uniform fields	19
8 Evaluation of compliance to limits	20
9 Assessment report	20
9.1 General	20
9.2 Items to be recorded in the assessment report	20
9.2.1 Assessment method	20
9.2.2 Presentation of the results	20
9.2.3 Equipment using external antennas	20
10 Product documentation	20
Annex A (informative) Examples for summation regimes	21
A.1 ICNIRP 1998 summation regimes	21
A.1.1 General	21
A.1.2 Frequency range from 1 Hz to 10 MHz (ICNIRP 1998-based)	21
A.1.3 Frequency range from 100 kHz to 300 GHz (ICNIRP 1998-based)	25
A.2 ICNIRP 2010 summation regimes	26
A.2.1 General	26
A.2.2 Frequency domain assessment – ICNIRP 2010 Guidelines	26
A.2.3 Time domain assessment – ICNIRP 2010 Guidelines	29
A.3 IEEE summation regimes	31
A.3.1 General	31
A.3.2 Frequency range from 0 kHz to 5 MHz (IEEE-based)	31
A.3.3 Frequency range from 3 kHz to 300 GHz (IEEE-based)	32
Bibliography	33
Figure 1 – Assessment flowchart	15
Figure A.1 – Schematic of “weighting circuit”	23

Figure A.2 – Dependency on frequency of the reference levels VL plotted with smoothing edges with $VL(f_{c0}) = VL_0$, $VL(f_{c1}) = V_1$ and the slopes $\left(\frac{dVL}{df}\right)_n$	24
Figure A.3 – Transfer function WL	24
Figure A.4 – Amplitude and phase response for the weighting function $WL(f)$ of the magnetic field (reference level for general public exposure)	30
Table 1 – List of possible assessment methods	11
Table 2 – Characteristics and parameters of the equipment to be considered	16

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ASSESSMENT OF ELECTRONIC AND ELECTRICAL EQUIPMENT
RELATED TO HUMAN EXPOSURE RESTRICTIONS
FOR ELECTROMAGNETIC FIELDS (0 Hz to 300 GHz)**

FOREWORD

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International Standard IEC 62311 has been prepared by IEC technical committee 106: Methods for the assessment of electric, magnetic and electromagnetic fields associated with human exposure.

This second edition cancels and replaces the first edition published in 2007. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) a clear distinction between intentional and unintentional radiators has been introduced;
- b) the exposure to non-uniform fields is considered;
- c) the treatment of uncertainty for the assessment procedures has been improved;
- d) various summation regimes are described in Annex A;
- e) the information from meanwhile published basic standards has been used and hence all informative annexes of the previous edition have been removed.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
106/480/FDIS	106/486/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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ASSESSMENT OF ELECTRONIC AND ELECTRICAL EQUIPMENT RELATED TO HUMAN EXPOSURE RESTRICTIONS FOR ELECTROMAGNETIC FIELDS (0 Hz to 300 GHz)

1 Scope

This document applies to electronic and electrical equipment for which no dedicated product standard or product family standard regarding human exposure to electromagnetic fields applies. It covers equipment with intentional or non-intentional radiators as well as a combination thereof.

This document provides assessment methods and criteria to evaluate equipment against limits on exposure of people related to electric, magnetic and electromagnetic fields. The frequency range covered is from 0 Hz to 300 GHz.

NOTE 1 Further guidance concerning the application of this document and its relationship to other EMF standards is given in Figure 1.

This document does not specify limits expressed by means of basic restrictions and/or reference levels. Such limits are subject to the applied assessment scheme, for example by means of regional limits.

NOTE 2 The assessment methods and criteria to evaluate equipment against basic restrictions or reference levels can be used with regard to either general public or occupational exposure.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60050-161:1990, *International Electrotechnical Vocabulary – Chapter 161: Electromagnetic compatibility* (available at <http://www.electropedia.org>)

IEC 62232:2017, *Determination of RF field strength, power density and SAR in the vicinity of radiocommunication base stations for the purpose of evaluating human exposure*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-161 and the following apply.

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