

**ELEKTRILIINSEADMED MADALPINGEPAIGALDISTES.  
RAADIOHÄIRINGUTE TUNNUSSUURUSED.  
PIIRVÄÄRTUSED JA MÕÕTEMEETODID.  
OSA 1: MAJASISENE APARATUUR**

**Power line communication apparatus used in low-  
voltage installations - Radio disturbance characteristics  
- Limits and methods of measurement -- Part 1:  
Apparatus for in-home use**

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ICS 33.040.60

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**Power line communication apparatus used in low-voltage installations -  
Radio disturbance characteristics -  
Limits and methods of measurement -  
Part 1: Apparatus for in-home use**

Appareils de communication par courant porteur utilisés dans les installations basse tension -  
Caractéristiques de perturbations radioélectriques -  
Limites et méthodes de mesure -  
Partie 1: Appareils pour usage intérieur

Kommunikationsgeräte auf elektrischen Niederspannungsnetzen -  
Funkstöreigenschaften -  
Grenzwerte und Messverfahren -  
Teil 1: Geräte für die Verwendung im Heimbereich

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## Foreword

This document (EN 50561-1:2013) has been prepared by CLC/TC 210, "Electromagnetic compatibility (EMC)".

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) 2014-10-09
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2016-10-09

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).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

The scope is extended to the whole radio-frequency range from 9 kHz to 400 GHz, but limits are formulated only in restricted frequency bands, which are considered sufficient to reach adequate emission levels to protect radio broadcast and telecommunication services and to allow other apparatus to operate as intended at reasonable distance.

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## Introduction

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CENELEC takes no position concerning the evidence, validity and scope of this patent right.

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## 1 Scope

This part of EN 50561 specifies limits and methods of measurement of radio disturbance characteristics for in-home communication apparatus that use the low-voltage power installation as the transmission medium. This part of EN 50561 applies to equipment that communicate over this medium in the frequency range 1,606 5 MHz to 30 MHz.

NOTE Similar equipment that communicate outside this frequency range is under study and will be covered by another European Standard.

Procedures are given for the measurement of signals generated by the equipment and limits are specified for the frequency range 9 kHz to 400 GHz. No measurement is required at frequencies where no limit is specified.

## 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 55022:2010 + AC:2011, *Information technology equipment — Radio disturbance characteristics — Limits and methods of measurement (CISPR 22:2008, modified)*

EN 55016-1-1:2010, *Specification for radio disturbance and immunity measuring apparatus and methods — Part 1-1: Radio disturbance and immunity measuring apparatus — Measuring apparatus (CISPR 16-1-1:2010 + corrigendum Oct. 2011)*

EN 55016-1-2:2004, *Specification for radio disturbance and immunity measuring apparatus and methods — Part 1-2: Radio disturbance and immunity measuring apparatus — Ancillary equipment — Conducted disturbances (CISPR 16-1-2:2003)*

EN 55016-4-2:2004<sup>1)</sup>, *Specification for radio disturbance and immunity measuring apparatus and methods — Part 4-2: Uncertainties, statistics and limit modelling — Uncertainty in EMC measurements (CISPR 16-4-2:2003)*

*The Radio Regulations*, ITU, Edition of 2008

ITU-R Recommendation BS.560-3<sup>2)</sup>, *Radio-frequency protection ratios in LF, MF and HF broadcasting*

ITU-R Recommendation BS.703, *Characteristics of AM sound broadcasting reference receivers for planning purposes*

ITU-R Recommendation BS.1615<sup>3)</sup>, *"Planning parameters" for digital sound broadcasting at frequencies below 30 MHz*

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1) EN 55016-4-2:2004 is superseded by EN 55016-4-2:2011, *Specification for radio disturbance and immunity measuring apparatus and methods — Part 4-2: Uncertainties, statistics and limit modelling — Measurement instrumentation uncertainty (CISPR 16-4-2:2011)*

2) BS.560-3 is superseded by BS.560-4, *Radio-frequency protection ratios in LF, MF and HF broadcasting*

3) BS.1615 is superseded by BS.1615-1, *"Planning parameters" for digital sound broadcasting at frequencies below 30 MHz*