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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



## **EESTI STANDARDI EESSÕNA**

### **NATIONAL FOREWORD**

	See Eesti	standard	EVS-EN	50561-2	1:2013	This	Estonian	standard	d EVS-EN	5056	51-1:2013
sisaldab Euroopa standardi EN 50561-1:2013 ja c						consis	sts of the	e Englisł	n text of	the	European
selle paranduse AC:2015 ingliskeelset teksti.						standard EN 50561-1:2013 and its corrigendum					
					AC:2015.						
	Standard o	n jõustu	nud sellek	ohase	teate	This	standard	has b	een endo	orsed	with a
	avaldamisega	a EVS Teata	ijas.			notific	cation pub	lished in	the officia	l bulle	tin of the
						Eston	ian Centre	for Stand	lardisation		
Euroopa standardimisorganisatsioonid on teinud						Date of Availability of the European standard is					
	Euroopa s							J	1		
kättesaadavaks 18.10.2013.											
	Standard	on	kättesaada	av	Eesti	The st	tandard is	available	from the	Estoni	an Centre
	Standardikes	kusest.				for Sta	andardisat	tion.			

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## **EUROPEAN STANDARD**

## EN 50561-1

# NORME EUROPÉENNE EUROPÄISCHE NORM

October 2013

ICS 33.040.60

English version

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels

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   2016-10-09 document have to be withdrawn

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 nc, consi. services 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.

### Introduction

The European Committee for Electrotechnical Standardization (CENELEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent given in EN 50561-1:2013.

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f the ELEC'S Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights other than those identified above. CENELEC shall not be held responsible for identifying any or all such patent rights

### 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 3), "Planning parameters" for digital sound broadcasting at frequencies below 30 MHz

<sup>1)</sup> 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)

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

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