### SVENSK STANDARD SS-EN 55016-2-3



Fastställd 2010-08-23

Utgåva 3 Sida 1 (1+89) Ansvarig kommitté SEK TK EMC

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## EMC – Utrustning och metoder för mätning av radiostörningar och immunitet – Del 2-3: Mätning av utstrålade störningar

Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-3: Methods of measurement of disturbances and immunity – Radiated disturbance measurements

Som svensk standard gäller europastandarden EN 55016-2-3:2010. Den svenska standarden innehåller den officiella engelska språkversionen av EN 55016-2-3:2010.

#### Nationellt förord

Europastandarden EN 55016-2-3:2010

består av:

- europastandardens ikraftsättningsdokument, utarbetat inom CENELEC
- CISPR 16-2-3, Third edition, 2010 Specification for radio disturbance and immunity measuring apparatus and methods Part 2-3: Methods of measurement of disturbances and immunity Radiated disturbance measurements

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 55016-2-3, utgåva 2, 2007, gäller ej fr o m 2013-06-01.

ICS 33.100.10; 33.100.20

### Standarder underlättar utvecklingen och höjer elsäkerheten

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SEK Svensk Elstandard

Box 1284 164 29 Kista Tel 08-444 14 00 www.elstandard.se

### **EUROPEAN STANDARD**

## EN 55016-2-3

## NORME EUROPÉENNE EUROPÄISCHE NORM

June 2010

ICS 33.100.10; 33.100.20

Supersedes EN 55016-2-3:2006

English version

# Specification for radio disturbance and immunity measuring apparatus and methods -

# Part 2-3: Methods of measurement of disturbances and immunity - Radiated disturbance measurements

(CISPR 16-2-3:2010)

Spécifications des méthodes et des appareils de mesure des perturbations radioélectriques et de l'immunité aux perturbations radioélectriques -Partie 2-3: Méthodes de mesure des perturbations et de l'immunité -Mesures des perturbations rayonnées (CISPR 16-2-3:2010)

Anforderungen an Geräte und Einrichtungen sowie Festlegung der Verfahren zur Messung der hochfrequenten Störaussendung (Funkstörungen) und Störfestigkeit - Teil 2-3: Verfahren zur Messung der hochfrequenten Störaussendung (Funkstörungen) und Störfestigkeit - Messung der gestrahlten Störaussendung (CISPR 16-2-3:2010)

This European Standard was approved by CENELEC on 2010-06-01. 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, Croatia, 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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

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Ref. No. EN 55016-2-3:2010 E

### Foreword

The text of document CISPR/A/886/FDIS, future edition 3 of CISPR 16-2-3, prepared by CISPR SC A, Radio-interference measurements and statistical methods, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 55016-2-3 on 2010-06-01.

This European Standard supersedes EN 55016-2-3:2006.

This EN 55016-2-3:2010 includes the following significant technical changes with respect to EN 55016-2-3:2006: addition of the measurand for radiated emissions measurements in an OATS and a SAC in the range of 30 MHz to 1 000 MHz, and addition of a new normative annex on the determination of suitability of spectrum analysers for compliance tests. Also, numerous maintenance items are addressed to make the standard current with respect to other parts of the EN 55016 series.

It has the status of a basic EMC publication in accordance with IEC Guide 107, *Electromagnetic compatibility – Guide to the drafting of electromagnetic compatibility publications*.

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

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) 2011-03-01

 latest date by which the national standards conflicting with the EN have to be withdrawn

(dow) 2013-06-01

Annex ZA has been added by CENELEC.

### **Endorsement notice**

The text of the International Standard CISPR 16-2-3:2010 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

 [1] CISPR 11:2009
 NOTE
 Harmonized as EN 55011:2009 (modified).

 [3] CISPR 22:2008
 NOTE
 Harmonized as EN 55022:200X 1) (modified).

 [4] IEC 61140:2001
 NOTE
 Harmonized as EN 61140:2002 (not modified).

 [6] ISO/IEC 17000:2004
 NOTE
 Harmonized as EN ISO/IEC 17000:2004 (not modified).

 [7] IEC 61000-4-21
 NOTE
 Harmonized as EN 61000-4-21.

-

<sup>1)</sup> At draft stage.

# Annex ZA (normative)

# Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
CISPR 14-1	2005	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission	EN 55014-1	2006
CISPR 16-1-1	-	Specification for radio disturbance and immunity measuring apparatus and methods Part 1-1: Radio disturbance and immunity measuring apparatus - Measuring apparatus	EN 55016-1-1 -	-
CISPR 16-1-2	2003	Specification for radio disturbance and immunity measuring apparatus and methods Part 1-2: Radio disturbance and immunity measuring apparatus - Ancillary equipment - Conducted disturbances	EN 55016-1-2 -	2004
CISPR 16-1-4	2010	Specification for radio disturbance and immunity measuring apparatus and methods Part 1-4: Radio disturbance and immunity measuring apparatus - Antennas and test sites for radiated disturbance measurements	EN 55016-1-4 -	2010
CISPR 16-2-1	2008	Specification for radio disturbance and immunity measuring apparatus and methods Part 2-1: Methods of measurement of disturbances and immunity - Conducted disturbance measurements	EN 55016-2-1 -	2009
CISPR 16-4-1	-	Specification for radio disturbance and immunity measuring apparatus and methods Part 4-1: Uncertainties, statistics and limit modelling - Uncertainties in standardized EM0 tests		-
CISPR 16-4-2	-	Specification for radio disturbance and immunity measuring apparatus and methods Part 4-2: Uncertainties, statistics and limit modelling - Uncertainty in EMC measurements	EN 55016-4-2 -	-
CISPR/TR 16-4-5	-	Specification for radio disturbance and immunity measuring apparatus and methods Part 4-5: Uncertainties, statistics and limit modelling - Conditions for the use of alternative test methods	- -	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60050-161	1990	International Electrotechnical Vocabulary (IEV) - Chapter 161: Electromagnetic compatibility	-	-
IEC 61000-4-3	2006	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3	2006
IEC 61000-4-20	-	Electromagnetic compatibility (EMC) - Part 4-20: Testing and measurement techniques - Emission and immunity testing ir transverse electromagnetic (TEM) waveguides	EN 61000-4-20	-

## CONTENTS

1	Scop	cope				
2	Norn	mative references				
3	Term	ms and definitions				
4	Type	Types of disturbance to be measured				
	4.1		ral			
	4.2		of disturbance			
	4.3	٠.	tor functions			
5			of measuring equipment			
6		General measurement requirements and conditions				
	6.1	·				
	6.2	Disturbance not produced by the equipment under test				
	0.2	6.2.1	General			
		6.2.2	Compliance (conformity assessment) testing			
	6.3	-	urement of continuous disturbance			
	0.0	6.3.1	Narrowband continuous disturbance			
		6.3.2	Broadband continuous disturbance			
		6.3.3	Use of spectrum analyzers and scanning receivers			
	6.4		ting conditions of the EUT			
	• • •	6.4.1	Normal load conditions			
		6.4.2	The time of operation			
		6.4.3	Running-in time			
		6.4.4	Supply			
		6.4.5	Mode of operation			
	6.5	Interp	retation of measuring results			
		6.5.1	Continuous disturbance			
		6.5.2	Discontinuous disturbance			
	6.6	Measu	urement times and scan rates for continuous disturbance			
		6.6.1	General			
		6.6.2	Minimum measurement times			
		6.6.3	Scan rates for scanning receivers and spectrum analyzers	17		
		6.6.4	Scan times for stepping receivers	18		
		6.6.5	Strategies for obtaining a spectrum overview using the peak detector	19		
7	Meas	sureme	nt of radiated disturbances	22		
	7.1	7.1 Introductory remarks				
	7.2		antenna system measurements (9 kHz to 30 MHz)			
		7.2.1	General			
		7.2.2	General measurement method	23		
		7.2.3	Test environment	24		
		7.2.4	Configuration of the equipment under test	24		
		7.2.5	Measurement uncertainty for LAS	25		
	7.3	•				
			<u>'</u> )	25		
		7.3.1	Measurand	25		
		7.3.2	Test site requirements			
		7.3.3	General measurement method	26		

	7.3.4	Measurement distance	27
	7.3.5	Antenna height variation	27
	7.3.6	Product specification details	27
	7.3.7	Measurement instrumentation	29
	7.3.8	Field-strength measurements on other outdoor sites	29
	7.3.9	Measurement uncertainty for OATS and SAC	29
7.4	Fully-a	anechoic room measurements (30 MHz to 1 GHz)	30
	7.4.1	Test set-up and site geometry	30
	7.4.2	EUT position	32
	7.4.3	Cable layout and termination	
	7.4.4	Measurement uncertainty for FAR	34
7.5	7.5 Radiated emission measurement method (30 MHz to 1 GHz) and radia immunity test method (80 MHz to 1 GHz) with common test set-up in anechoic chamber		34
	7.5.1	Applicability	
	7.5.2	EUT perimeter definition and antenna-to-EUT separation distance	
	7.5.3	Uniform test volume	
	7.5.4	Specifications for EUT set-up in common emissions/immunity test setup	36
	7.5.5	Measurement uncertainty for common emission/immunity set-up and method	41
7.6		anechoic room and absorber-lined OATS/SAC measurements (1 GHz GHz)	
	7.6.1	Quantity to measure	
	7.6.2	Measurement distance	
	7.6.3	Set-up and operating conditions of the equipment under test (EUT)	
	7.6.4	Measurement site	
	7.6.5	Measurement instrumentation	
	7.6.6	Measurement procedure	
	7.6.7	Measurement uncertainty for FAR	
7.7		measurements (9 kHz to 18 GHz)	
	7.7.1	Applicability of and preparation for <i>in situ</i> measurements	49
	7.7.2	Field-strength measurements <i>in situ</i> in the frequency range 9 kHz to 30 MHz	50
	7.7.3	Field-strength measurements <i>in situ</i> in the frequency range above 30 MHz	51
	7.7.4	In situ measurement of the disturbance effective radiated power using the substitution method	
	7.7.5	Documentation of the measurement results	
	7.7.6	Measurement uncertainty for in situ method	
7.8		tution measurements (30 MHz to 18 GHz)	
	7.8.1	General	
	7.8.2	Test site	
	7.8.3	Test antennas	
	7.8.4	EUT configuration	
	7.8.5	Test procedure	
	7.8.6	Measurement uncertainty for substitution method	
7.9		beration chamber measurements (80 MHz to 18 GHz)	
7.10		vaveguide measurements (30 MHz to 18 GHz)	
Auto	mated r	neasurement of emissions	58

8.1	Introduction	n – precautions for automated measurements	58
8.2	Generic me	asurement procedure	59
8.3	Pre-scan m	easurements	59
	8.3.1 Gen	neral	59
	8.3.2 Dete	ermination of the required measurement time	59
	8.3.3 Pre-	-scan requirements for different types of measurements	60
8.4		ion	
8.5		aximization and final measurement	
8.6		ssing and reporting	63
	` ,	Measurement of disturbances in the presence of ambient	64
		Use of spectrum analyzers and scanning receivers	
		Scan rates and measurement times for use with the average	7 0
			81
Annex D	(informative)	Explanation of APD measurement method applying to the	
Annex E	(normative)	Determination of suitability of spectrum analyzers for compliance	
Dibliogra	piry		
		ent of a combination of a CW signal (NB) and an impulsive signal weeps with maximum hold	19
Figure 2	– Example o	f a timing analysis	20
		nd spectrum measured with a stepped receiver	
		t narrowband disturbances measured using fast short repetitive n hold function to obtain an overview of the emission spectrum	22
		f magnetic field induced current measurements made with the	24
site (OA7	S) or semi-a	f electric field strength measurements made on an open-area test anechoic chamber (SAC) showing the direct and reflected raysing antenna	26
		R site geometry, where a, b, c, e depend upon the room	30
		et set-up for table-top equipment within the test volume of a FAR	
Figure 9	– Typical tes	t set-up for floor-standing equipment within the test volume of a	
		of reference planes for uniform field calibration (top-view)	
•		up for table-top equipment	
		up for table-top equipment – Top view	
•		up for floor-standing equipment	
		up for floor-standing equipment – Top view	40
		ment method above 1 GHz, receive antenna in vertical	43
Figure 16	6 – Illustratio	n of height scan requirements for two different categories of	
		ation of the transition distance	
		on method set-up geometries for: a) measurement, b) calibration	
•		o give reduction of measurement time	

Figure A.1 – Flow diagram for the selection of bandwidths and detectors and the estimated measurement errors due to that selection	66
Figure A.2 – Relative difference in adjacent emission amplitudes during preliminary testing	68
Figure A.3 – Disturbance by an unmodulated signal (dotted line)	
Figure A.4 – Disturbance by an amplitude-modulated signal (dotted line)	69
Figure A.5 – Indication of an amplitude-modulated signal as a function of modulation frequency with the QP detector in CISPR bands B, C and D	70
Figure A.6 – Indication of a pulse-modulated signal (pulse width 50 $\mu$ s) as a function of pulse repetition frequency with peak, QP and average detectors	71
Figure A.7 – Disturbance by a broadband signal (dotted line)	71
Figure A.8 – Unmodulated EUT disturbance (dotted line)	72
Figure A.9 – Amplitude-modulated EUT disturbance (dotted line)	73
Figure A.10 – Increase of peak value with superposition of two unmodulated signals	74
Figure A.11 – Determination of the amplitude of the disturbance signal by means of the amplitude ratio $d$ and the factor $i$ [see Equation (A.3) and Equation (A.6)]	75
Figure A.12 – Increase of average indication measured with a real receiver and calculated from Equation (A.8)	76
Figure C.1 – Weighting function of a 10 ms pulse for peak (PK) and average detections with (CISPR AV) and without (AV) peak reading: meter time constant 160 ms	83
Figure C.2 – Weighting functions of a 10 ms pulse for peak (PK) and average detections with (CISPR AV) and without (AV) peak reading: meter time constant 100 ms	83
Figure C.3 – Example of weighting functions (of a 1 Hz pulse) for peak (PK) and average detections as a function of pulse width: meter time constant 160 ms	
Figure C.4 – Example of weighting functions (of a 1 Hz pulse) for peak (PK) and average detections as a function of pulse width: meter time constant 100 ms	84
Figure D.1 – Example of APD measurement Method 1 for fluctuating disturbances	85
Figure D.2 – Example of APD measurement Method 2 for fluctuating disturbances	86
Table 1 – Minimum scan times for the three CISPR bands with peak and quasi-peak detectors	17
Table 2 – Applicable frequency ranges and document references for CISPR radiated emission test sites and test methods	23
Table 3 – Minimum dimension of $w$ ( $w_{min}$ )	44
Table 4 – Example values of w for three antenna types	
Table 5 – Horizontal polarization correction factors as a function of frequency	54
Table 6 – Recommended antenna heights to guarantee signal interception (for prescan) in the frequency range 30 MHz to 1 000 MHz	61
Table A.1 – Combinations of EUT disturbance and ambient emissions	65
Table A.2 – Measurement error depending on the detector type and on the combination of ambient and disturbing signal spectra	77
Table C.1 – Pulse suppression factors and scan rates for a 100 Hz video bandwidth	82
Table C.2 – Meter time constants and the corresponding video bandwidths and maximum scan rates	82
Table E.1 – Maximum amplitude difference between peak and quasi-peak detected	07

# SPECIFICATION FOR RADIO DISTURBANCE AND IMMUNITY MEASURING APPARATUS AND METHODS –

# Part 2-3: Methods of measurement of disturbances and immunity – Radiated disturbance measurements

### 1 Scope

This part of CISPR 16 specifies the methods of measurement of radiated disturbance phenomena in the frequency range of 9 kHz to 18 GHz. The aspects of measurement uncertainty are specified in CISPR 16-4-1 and CISPR 16-4-2.

NOTE In accordance with IEC Guide 107, CISPR 16-2-3 is a basic EMC publication for use by product committees of the IEC. As stated in Guide 107, product committees are responsible for determining the applicability of the EMC standard. CISPR and its sub-committees are prepared to co-operate with product committees in the evaluation of the value of particular EMC tests for specific products.

#### 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.

CISPR 14-1:2005, Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission

CISPR 16-1-1, Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-1: Radio disturbance and immunity measuring apparatus – Measuring apparatus

CISPR 16-1-2:2003, Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-2: Radio disturbance and immunity measuring apparatus – Ancillary equipment – Conducted disturbances

Amendment 1 (2004)

Amendment 2 (2006)

CISPR 16-1-4:2010, Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Ancillary equipment – Radiated disturbances

CISPR 16-2-1:2008, Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-1: Methods of measurement of disturbances and immunity – Conducted disturbance measurements

CISPR 16-4-1, Specification for radio disturbance and immunity measuring apparatus and methods — Part 4-1: Uncertainties, statistics and limit modelling — Uncertainties in standardized EMC tests

CISPR 16-4-2, Specification for radio disturbance and immunity measuring apparatus and methods — Part 4-2: Uncertainties, statistics and limit modelling — Uncertainty in EMC measurements

CISPR 16-4-5, Specification for radio disturbance and immunity measuring apparatus and methods – Part 4-5: Uncertainties, statistics and limit modelling – Conditions for the use of alternative test methods

IEC 60050-161:1990, International Electrotechnical Vocabulary (IEV) – Chapter 161: Electromagnetic compatibility
Amendment 1 (1997)
Amendment 2 (1998)

IEC 61000-4-3:2006, Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test Amendment 1 (2007)

IEC 61000-4-20, Electromagnetic compatibility (EMC) – Part 4-20: Testing and measurement techniques – Emission and immunity testing in transverse electromagnetic (TEM) waveguides

