

Information technology equipment — Immunity characteristics — Limits and methods of measurement

ICS 33.100

National foreword

This British Standard is the UK implementation of EN 55024:1998+A2:2003. It is derived from CISPR 24:1997, incorporating amendments 1:2001 and 2:2002.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by A1 A1.

The CENELEC common modifications have been implemented at the appropriate places in the text. The start and finish of each common modification is indicated in the text by tags C C.

The UK participation in its preparation was entrusted by Technical Committee GEL/210, Electromagnetic compatibility, to Subcommittee GEL/210/7, Interference characteristics of ITE.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

CENELEC Interpretation Sheet 1 (August 2007) is applicable to Annex A. The content of this interpretation sheet is reproduced in National Annex NA (informative).

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Committee and comes into effect on 15 December 1998

© BSI 2008

ISBN 978 0 580 60884 1

Amendments issued since publication

Amd. No.	Date	Comments
13564	28 August 2002	See national foreword
14388	9 June 2003	See national foreword
	29 February 2008	Addition of CENELEC Interpretation Sheet 1 in National Annex NA

ICS 33.100

Descriptors: Data processing equipment, telecommunication terminals, facsimile equipment, photocopying machines, printers cash registers, vending machines, local area networks, electromagnetic immunity, radio disturbances, electrostatic discharge tests, characteristics, measurements, limits

English version

Information technology equipment — Immunity characteristics — Limits and methods of measurement (CISPR 24:1997, modified)

Appareils de traitement de l'information —
Caractéristiques d'immunité —
Limites et méthodes de mesure
(CISPR 24:1997, modifiée)

Einrichtungen der Informationstechnik —
Störfestigkeitseigenschaften —
Grenzwerte und Prüfverfahren
(CISPR 24:1997, modifiziert)

This European Standard was approved by CENELEC on 1998-08-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B-1050 Brussels

Foreword

The text of the International Standard CISPR 24:1997, prepared by CISPR SC G, Interference relating to information technology equipment, together with common modifications prepared by SC 210A, EMC Products, of Technical Committee CENELEC TC 210, EMC, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 55024 on 1998-08-01.

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) 1999-02-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2001-07-01

Annexes designated “normative” are part of the body of the standard.

In this standard, Annex A, Annex B, Annex C, Annex D, Annex E, Annex F, Annex G and Annex ZA are normative. Annex ZA has been added by CENELEC.

Foreword to amendment A1

The text of document CISPR/G/211/FDIS, future amendment 1 to CISPR 24:1997, prepared by CISPR SC G, Interference relating to information technology equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 55024:1998 on 2001-10-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2002-07-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2004-10-01

Foreword to amendment A2

The text of document CISPR/I/42/FDIS, future amendment 2 to CISPR 24:1997, prepared by CISPR SC I, Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A2 to EN 55024:1998 on 2001-12-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2003-09-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2005-12-01

Annexes designated “normative” are part of the body of the standard.

In this standard, Annex ZA is normative.

Annex ZA has been added by CENELEC.

Contents

	Page	Page
Foreword	2	
Introduction	5	
1 Scope and object	5	
2 Normative references	5	
3 Definitions	6	
4 Immunity test requirements	8	
5 Applicability	10	
6 Conditions during testing	10	
7 Performance criteria	11	
8 Product documentation	12	
Annex A (normative) Telecommunications terminal equipment	14	Figure A.7 — Sound coupling set-up between the acoustic device of a telephone and an artificial ear for detecting demodulated sound pressure level 26
Annex B (normative) Data processing equipment	27	Figure A.8 — Test set-up for measuring the reference sound pressure level from the acoustic receiving device of a telephone (relating to measurement method 2 of Annex A) 27
Annex C (normative) Local area networks (LAN)	30	Table 1 — Immunity, enclosure port 12
Annex D (normative) Printers	31	Table 2 — Immunity, signal ports and telecommunication ports 12
Annex E (normative) Copying machines	31	Table 3 — Immunity, input d.c. power port (excluding equipment marketed with an a.c./d.c. power converter) 13
Annex F (normative) Automatic teller machines (ATM)	32	Table 4 — Immunity, input a.c. power ports (including equipment marketed with a separate a.c./d.c. power converter) 13
Annex G (normative) Point of sale terminals (POST)	33	Table A.1 — Maximum acoustic demodulated levels at the telecommunications port and at the acoustic receiving device (measurement method 1) 15
Annex ZA (normative) Normative references to international publications with their corresponding European publications	35	Table A.2 — Maximum demodulated differential mode noise levels at the telecommunications port (measurement method 2) 16
National Annex NA (informative)		Table A.3 — Maximum demodulated differential mode noise and acoustic sound pressure levels at the telecommunications port and at the acoustic receiving device (measurement method 1) 17
CENELEC Interpretation Sheet 1	36	Table A.4 — Maximum demodulated differential mode noise levels (measurement method 2) 18
Figure 1 — Description of ports	7	
Figure A.1 — Test set-up for RF continuous conducted immunity testing (EUT: key telephone system; port under test: subscriber line)	20	
Figure A.2 — Test set-up for RF continuous conducted immunity testing (EUT: key telephone system; port under test: M-EUT side extension line)	21	
Figure A.3 — Test set-up for RF continuous conducted immunity testing (EUT: key telephone system; port under test: S-EUT side extension line)	22	
Figure A.4 — Test set-up for RF continuous conducted immunity testing (EUT: key telephone system; port under test: AC mains)	23	
Figure A.5 — Test set-up for RF electromagnetic field immunity testing (EUT: M-EUT key telephone system; port under test: enclosure)	24	
Figure A.6 — Test set-up for RF electromagnetic field immunity testing (EUT: S-EUT of key telephone system; port under test: enclosure)	25	

