



**NSAI**  
Standards

Irish Standard  
I.S. EN 50289-1-1:2017

# Communication cables - Specifications for test methods - Part 1-1: Electrical test methods - General requirements

**I.S. EN 50289-1-1:2017**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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*This document is based on:*

EN 50289-1-1:2017

*Published:*

2017-03-17

*This document was published  
under the authority of the NSAI  
and comes into effect on:*

2017-04-04

ICS number:

33.120.20

NOTE: If blank see CEN/CENELEC cover page

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## National Foreword

I.S. EN 50289-1-1:2017 is the adopted Irish version of the European Document EN 50289-1-1:2017, Communication cables - Specifications for test methods - Part 1-1: Electrical test methods - General requirements

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EUROPEAN STANDARD

**EN 50289-1-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2017

ICS 33.120.20

Supersedes EN 50289-1-1:2001

English Version

## Communication cables - Specifications for test methods - Part 1- 1: Electrical test methods - General requirements

Câbles de communication - Spécifications des méthodes  
d'essai Partie 1-1: Méthodes d'essais électriques -  
Prescriptions générales

Kommunikationskabel - Spezifikationen für Prüfverfahren  
Teil 1-1: Elektrische Prüfverfahren - Allgemeines

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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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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## European foreword

This document [EN 50289-1-1:2017] has been prepared by CLC/TC 46X "Communication cables".

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) 2017-09-16
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2019-12-16

This document supersedes EN 50289-1-1:2001.

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

EN 50289-1, Communication cables — Specifications for test methods, is currently composed with the following parts:

- *Part 1-1: Electrical test methods — General requirements;*
- *Part 1-2: Electrical test methods — DC resistance;*
- *Part 1-3: Electrical test methods — Dielectric strength;*
- *Part 1-4: Electrical test methods — Insulation resistance;*
- *Part 1-5: Electrical test methods — Capacitance;*
- *Part 1-6: Electrical test methods — Electromagnetic performance;*
- *Part 1-7: Electrical test methods — Velocity of propagation;*
- *Part 1-8: Electrical test methods — Attenuation;*
- *Part 1-9: Electrical test methods — Unbalance attenuation (longitudinal conversion loss, longitudinal conversion transfer loss);*
- *Part 1-10: Electrical test methods — Crosstalk;*
- *Part 1-11: Electrical test methods — Characteristic impedance, input impedance, return loss;*
- *Part 1-12: Electrical test methods — Inductance;*
- *Part 1-13: Electrical test methods — Coupling attenuation or screening attenuation of patch cords / coaxial cable assemblies / pre-connectorised cables;*
- *Part 1-14: Electrical test methods — Coupling attenuation or screening attenuation of connecting hardware;*
- *Part 1-15: Electromagnetic performance — Coupling attenuation of links and channels (Laboratory conditions);*
- *Part 1-16: Electromagnetic performance — Coupling attenuation of cable assemblies (Field conditions);*
- *Part 1-17: Electrical test methods — Exogenous Crosstalk ExNEXT and ExFEXT.*

**EN 50289-1-1:2017****1 Scope**

This European Standard specifies the electrical test methods for cables used in analogue and digital communication systems.

Part 1 of EN 50289 consists of the following documents:

- Part 1-1 General requirements
- Part 1-2 DC resistance
- Part 1-3 Dielectric strength
- Part 1-4 Insulation resistance
- Part 1-5 Capacitance
- Part 1-6 Electromagnetic performance
- Part 1-7 Velocity of propagation
- Part 1-8 Attenuation
- Part 1-9 Unbalance attenuation (longitudinal conversion loss, longitudinal conversion transfer loss)
- Part 1-10 Crosstalk
- Part 1-11 Characteristic impedance, input impedance, return loss
- Part 1-12 Inductance
- Part 1-13 Coupling attenuation or screening attenuation of patch cords / coaxial cable assemblies / pre-connectorised cables
- Part 1-14 Coupling attenuation or screening attenuation of connecting hardware
- Part 1-15 Coupling attenuation of links and channels (Laboratory conditions)
- Part 1-16 Coupling attenuation of cable assemblies (Field conditions)
- Part 1-17 Exogenous Crosstalk ExNEXT and ExFEXT

Further test details (e.g. temperature, duration) and/or test requirements are given in the relevant cable standard.

**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 50289-1-9, *Communication cables - Specifications for test methods - Part 1-9: Electrical test methods - Unbalance attenuation (longitudinal conversion loss, longitudinal conversion transfer loss)*

EN 50290-1-2, *Communication cables - Part 1-2: Definitions*

EN 61169-16, *Radio-frequency connectors - Part 16: Sectional specification - RF coaxial connectors with inner diameter of outer conductor 7 mm (0,276 in) with screw coupling - Characteristic impedance 50 ohms (75 ohms) (type N)(IEC61169-16)*



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