

## **Information technology - Cabling installation - Testing of installed cabling**

Information technology - Cabling installation -  
Testing of installed cabling

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 50346:2003 sisaldab Euroopa standardi EN 50346:2002 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.03.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 50346:2003 consists of the English text of the European standard EN 50346:2002.</p> <p>This document is endorsed on 12.03.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>This standard specifies procedures for testing the transmission performance of installed information technology cabling in premises. These procedures apply to both balanced copper and optical fibre cabling. These test procedures may be used for acceptance testing against agreed cabling performance limits, verification of specific application support, the investigation of faults. These test procedures are not suitable for components or cable assemblies such as patch cords and equipment cords</p>	<p><b>Scope:</b></p> <p>This standard specifies procedures for testing the transmission performance of installed information technology cabling in premises. These procedures apply to both balanced copper and optical fibre cabling. These test procedures may be used for acceptance testing against agreed cabling performance limits, verification of specific application support, the investigation of faults. These test procedures are not suitable for components or cable assemblies such as patch cords and equipment cords</p>
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ICS 35.110

Võtmesõnad:

English version

**Information technology -  
Cabling installation -  
Testing of installed cabling**

Technologies de l'information -  
Installation de câblage -  
Essai des câblages installés

Informationstechnik -  
Installation von  
Kommunikationsverkabelung -  
Prüfen installierter Verkabelung

This European Standard was approved by CENELEC on 2002-11-01. 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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, 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

This European Standard has been prepared by Technical Committee CENELEC TC 215, *Electrotechnical aspects of telecommunication equipment*.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50346 on 2002-11-01.

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) 2003-11-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2005-11-01

Annexes designated “normative” are part of the body of the standard.  
In this standard, Annex A is normative.

This standard covers the testing of installed balanced and optical fibre cabling conforming to either series EN 50173 (generic cabling) or installed cabling conforming to dedicated, application-specific specifications such as series EN 50098. Thus EN 50346 covers a broader scope than EN 61935-1, which is restricted to the testing of installed balanced cabling according to EN 50173-1.

## Contents

<b>Introduction.....</b>	<b>5</b>
<b>1 Scope.....</b>	<b>5</b>
<b>2 Normative references.....</b>	<b>6</b>
<b>3 Definitions, abbreviations and symbols .....</b>	<b>7</b>
3.1 Definitions .....	7
3.2 Abbreviations .....	8
3.3 Symbols .....	9
<b>4 General requirements .....</b>	<b>9</b>
4.1 Location of measurement (test) interfaces .....	9
4.2 Safety requirements for test procedures .....	11
4.3 Test system .....	11
4.4 Normalisation and calibration .....	13
4.5 Environmental conditions .....	13
4.6 Test results .....	13
4.7 Documentation .....	14
<b>5 Test parameters for balanced copper cabling .....</b>	<b>15</b>
5.1 Wire map .....	15
5.2 Length.....	15
5.3 Propagation delay.....	15
5.4 Delay skew .....	15
5.5 Attenuation (insertion loss).....	15
5.6 Attenuation (insertion loss) deviation .....	16
5.7 Near end crosstalk loss (NEXT, pair-to-pair and power sum).....	16
5.8 Equal level far end crosstalk loss (ELFEXT, pair-to-pair and power sum).....	16
5.9 Attenuation to crosstalk ratio (ACR, pair-to-pair and power sum).....	17
5.10 Return loss .....	17
5.11 Unbalance attenuation, near end (LCL) .....	18
5.12 Coupling attenuation.....	18
5.13 Direct current (d.c.) loop resistance .....	18
5.14 Resistance unbalance .....	18

<b>6 Test parameters for optical fibre cabling</b>	<b>19</b>
6.1 Propagation delay	19
6.2 Length	20
6.3 Inter-component distance	20
6.4 Attenuation	21
6.5 Return loss	22

<b>Annex A (normative) Test procedures for multimode optical fibre cabling attenuation measurement</b>	<b>24</b>
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<b>Bibliography</b>	<b>29</b>
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## Figures

Figure 1 - Example of a cabling channel	9
Figure 2 - Example of a cabling link	9
Figure 3 - Reference planes for link and channels (point-to-point)	10
Figure 4 - Reference planes for link and channels (bus configuration)	11
Figure 5 - The test system and the cabling under test	12
Figure A.1 - Reference power measurement for method 1	25
Figure A.2 - Reference power measurement for method 2	26
Figure A.3 - Cable plant measurement for methods 1 and 2	26

## Tables

Table 1 - Attenuation test methods	22
Table A.1- Light source characteristics	24
Table A.2 - Light source categorization by CPR value (850 nm wavelength)	28
Table A.3 - Light source categorization by CPR value (1 300 nm wavelength)	28

## Introduction

Within premises, the importance of the information technology cabling infrastructure is similar to that of other fundamental building utilities such as heating, lighting and mains power supplies. As with other utilities, interruptions to service can have serious impact. Poor quality of service due to lack of planning, use of inappropriate components, incorrect installation, poor administration or inadequate support can threaten an organisation's effectiveness.

A series of European Standards have been prepared to support the successful installation of information technology cabling. These are

- for design – EN 50173-1 and relevant application standards (for example, EN 50098-1 and EN 50098-2),
- for specification, implementation and operation – EN 50174-1, EN 50174-2 and EN 50174-3.

This European Standard specifies the requirements for the testing of installed balanced copper and optical fibre cabling. Such testing is commonly undertaken at contract interfaces and the requirements of this standard take the form of defined test procedures ensuring that results obtained are relevant, repeatable and credible.

These test procedures may be

- a) referenced within the installation specification,
- b) used during the implementation phase of the installation,
- c) used during the operational phase to diagnose application failures at the cabling level.

This standard does not define which tests should be applied or the quantity or percentage of installed cabling to be tested. The test parameters to be measured and the sampling levels to be applied for a particular installation should be defined in the installation specification and quality plans for that installation prepared in accordance with EN 50174-1.

## 1 Scope

This standard specifies procedures for testing the transmission performance of installed information technology cabling in premises. These procedures apply to both balanced copper and optical fibre cabling.

These test procedures may be used for

- acceptance testing against agreed cabling performance limits,
- verification of specific application support,
- the investigation of faults.

These test procedures are not suitable for components or cable assemblies such as patch cords and equipment cords.

For each test procedure this standard specifies

- a) test parameter,
- b) the test method(s),
- c) test system,
- d) test equipment,
- e) cabling interface adaptor,
- f) measurement procedure,
- g) calibration,
- h) interpretation of test results,
- i) documentation.

Limits for the parameters under test are specified in relevant cabling and application standards.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 50289-1-6, *Communication cables - Specifications for test methods – Part 1-6: Electrical test methods – Electromagnetic performance*

EN 60825-1, *Safety of laser products - Part 1: Equipment classification, requirements and user's guide (IEC 60825-1:1993)*

EN 61280-4-2:1999, *Fibre optic communication subsystem basic test procedures – Part 4-2: Fibre optic cable plant - Single-mode fibre optic cable plant attenuation (IEC 61280-4-2:1999)*

EN 61300-3-4, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-4: Examinations and measurements – Attenuation (IEC 61300-3-4:2001)*

EN 61300-3-6:1997, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures – Part 3-6: Examinations and measurements – Return loss (IEC 61300-3-6:1997)*

EN 61935-1:2000, *Generic cabling systems – Specification for the testing of balanced communication cabling in accordance with EN 50173 - Part 1: Installed cabling (IEC 61935-1:2000)*

EN 61935-1:2000/A1:2002, *Generic cabling systems – Specification for the testing of balanced communication cabling in accordance with EN 50173 – Part 1: Installed cabling (IEC 61935-1:2000/A1:2002)*