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Irish Standard
I.S. EN 50377-14-1:2011

Connector sets and interconnect components to be used in optical fibre communication systems - Product specifications -- Part 14-1: Cords with IEC 60793-2-50 singlemode category B1.1 and B1.3 fibre for category C

I.S. EN 50377-14-1:2011

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EUROPEAN STANDARD

EN 50377-14-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2011

ICS 33.180.20

English version

**Connector sets and interconnect components to be used in optical fibre communication systems -
Product specifications -
Part 14-1: Cords with IEC 60793-2-50 singlemode category B1.1 and B1.3 fibre for category C**

Steckverbindersätze und
Verbindungsbaulemente für
Lichtwellenleiter-
Datenübertragungssysteme -
Produktnormen -
Teil 14-1: Verbindungskabel für
Einmodenfasern der Kategorien B1.1 und
B1.3 nach EN 60793 2 50 für die
Kategorie C

This European Standard was approved by CENELEC on 2011-05-02. 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.

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CENELEC

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

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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 86BXA, Fibre optic interconnect, passive and connectorised components.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50377-14-1 on 2011-05-02.

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) 2012-05-02
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2014-05-02

This document includes the performance of the patch cord, as well as latest attenuation and return loss grades as specified in IEC.

Connector sets and interconnect components to be used in optical fibre communication systems – Product specifications

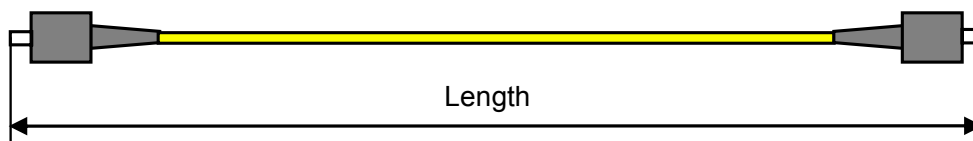
Part 14-1: Cords with IEC 60793-2-50 singlemode category B1.1 and B1.3 fibre for category C

Description		Performance	
Fibre category:	EN 60793-2-50 Types B1.1 and B1.3	Application:	For use in EN category C (controlled environment)
Cable type:	EN 60794-2-50 Type simplex cables	Attenuation grades: (random mate)	B: $\leq 0,12$ dB mean $\leq 0,25$ dB for ≥ 97 % of measurements C: $\leq 0,25$ dB mean $\leq 0,50$ dB for ≥ 97 % of measurements
		Return loss grade: (random mate)	1: ≥ 60 dB 2: ≥ 45 dB

Related documents:

EN 50377 series	Connector sets and interconnect components to be used in optical fibre communication systems – Product specifications
EN 60793-2-50	Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres (IEC 60793-2-50)
EN 60794-2-50	Optical fibre cables – Part 2-50: Indoor cables – Family specification for simplex and duplex cables for use in terminated cable assemblies (IEC 60794-2-50)
EN 61300 series	Fibre optic interconnecting devices and passive components – Basic test and measurement procedures (IEC 61300 series)
EN 61753-1	Fibre optic interconnecting devices and passive components performance standard – Part 1: General and guidance for performance standards (IEC 61753-1)
ETSI TS 100 671	Transmission and Multiplexing (TM); Passive optical components; Optical fibre connectors for single mode optical fibre communication systems; Common requirements and conformance testing

Outline and maximum dimensions:



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1 Scope

1.1 Product definition

This standard contains the initial, start of life dimensional, optical, mechanical and environmental performance requirements that an assembled singlemode patch cord with cylindrical ferruled connectors shall meet in order for it to be categorised as an EN standard product.

Since different variants and grades of performance are permitted, product marking details are given in 3.4 and Clause 4.

1.2 Intermateability of the plugs

Although all products conforming to the requirements of this standard will intermate, the resulting level of random attenuation performance will only be ensured in accordance with Table 1. The intention is that this will be true irrespective of the manufacturing source(s) of the product.

When intermating plug variants having different attenuation grades as specified in EN 61755-1, the resulting level of attenuation cannot be assured to be any better than the worst attenuation grade.

The intermating of a grade C plug with a grade B plug will result in a grade C level of random attenuation performance.

Table 1 – Ensured level of random attenuation

Plug variant / Attenuation grade		Plug 2	
		C	B
Plug 1	C	C	C
	B	C	B

1.3 Operating environment

The tests selected combined with the severities and durations are representative of an EN 61753-1 category C environment.

1.4 Reliability

Whilst the anticipated service life expectancy of the product in this environment is 20 years, compliance with this standard does not guarantee the reliability of the product. This should be predicted using a recognised reliability assessment programme.

1.5 Quality assurance

Compliance with this standard does not guarantee the manufacturing consistency of the product. This should be maintained using a recognised quality assurance programme.

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