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Standards

Irish Standard  
I.S. EN 50377-8-11:2010

Connector sets and interconnect components to be used in optical fibre communication systems - Product specifications -- Part 8-11: Type LSH-PC simplex terminated on IEC 60793-2-50 category B1.1 and B1.3 singlemode fibre with titanium composite ferrule for category C

## I.S. EN 50377-8-11:2010

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EUROPEAN STANDARD

**EN 50377-8-11**

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2010

ICS 33.180.20

English version

**Connector sets and interconnect components to be used in optical fibre communication systems - Product specifications -  
Part 8-11: Type LSH-PC simplex terminated on IEC 60793-2-50 category B1.1 and B1.3 singlemode fibre with titanium composite ferrule for category C**

Jeux de connecteurs et composants d'interconnexion à utiliser dans les systèmes de communication par fibres optiques - Spécifications de produits - Partie 8-11: Type LSH-PC simplex raccordé sur des fibres unimodales de catégorie B1.1 et B1.3 de la CEI 60793-2-50, avec fêrûle en composite de titane, pour utilisation en catégorie C

Steckverbindersätze und Verbindungsbaulemente für Lichtwellenleiter-Datenübertragungssysteme - Produktnormen - Teil 8-11: Bauart LSH-PC-Simplex zum Anschluss an Einmodenfasern der Typen B1.1 und B1.3 nach IEC 60793-2-50 mit Titanium-Komposit-Stift für die Kategorie C

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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. It was submitted to the formal vote and approved by CENELEC on 2010-04-01.

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:

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|--|-------|------------|
| – latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2011-04-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn   | (dow) | 2013-04-01 |
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Connector sets and interconnect components to be used in optical fibre communication systems - Product specifications			
Part 8-11: Type LSH-PC simplex terminated on IEC 60793-2-50 category B1.1 and B1.3 single mode fibre with titanium composite ferrule for Category C			
Description		Performance	
Coupling mechanism:	latched push-pull	Application:	For use in Category C (controlled environment)
Configuration:	plug/adaptor/plug	Attenuation grades: (random mate)	B: ≤ 0,12 dB mean ≤ 0,25 dB for > 97 % of measurements C: ≤ 0,25 dB mean ≤ 0,50 dB for > 97 % of measurements
Fibre category	EN 60793-2-50 type B1.1 & B1.3	Return loss grade:	2: ≥ 45 dB
Cable type:	see Table 3		
Related documents:			
EN 60794-2	Optical fibre cables – Part 2: Indoor cables – Sectional specification (IEC 60794-2)		
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)		
EN 61754-15	Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces – Part 15: Type LSH connector family (IEC 61754-15)		
EN 61755-1	Fibre optic connector optical interfaces – Part 1: Optical interfaces for single mode non-dispersion shifted fibres – General and guidance (IEC 61755-1)		
EN 61755-3-7	Fibre optic interconnecting devices and passive components – Fibre optic connector optical interfaces – Part 3-7: Optical interface, 2,5 mm and 1,25 mm diameter cylindrical PC composite ferrule using titanium as fibre surrounding material, single mode fibre (IEC 61755-3-7)		
Outline and maximum dimensions:			

## Contents

<b>1</b>	<b>Scope</b>	<b>6</b>
1.1	Product definition	6
1.2	Intermateability	6
1.3	Operating environment	6
1.4	Reliability	6
1.5	Quality assurance	6
<b>2</b>	<b>Normative references</b>	<b>6</b>
<b>3</b>	<b>Description</b>	<b>7</b>
3.1	Plug	7
3.2	Adaptor	7
3.3	Materials	8
3.4	Dimensions	8
3.5	Colour and marking	8
<b>4</b>	<b>Variants</b>	<b>9</b>
4.1	Terminated plug	9
4.2	Adaptor	10
<b>5</b>	<b>Dimensional requirements</b>	<b>11</b>
5.1	Outline dimensions	11
5.1.1	Plug variants	11
5.1.2	Adaptor variants	12
5.2	Mating face and other limit dimensions	15
5.2.1	Plug	15
5.2.2	Ferrule endface geometry and fibre core position after termination	17
5.2.3	Control of fibre core position and axis	20
5.2.4	Adaptor	21
5.2.5	Pin gauge for adaptor	23
<b>6</b>	<b>Tests</b>	<b>24</b>
6.1	Sample size	24
6.2	Test and measurement methods	24
6.3	Test sequence	24
6.4	Pass/fail criteria	24
<b>7</b>	<b>Test report</b>	<b>24</b>
<b>8</b>	<b>Product qualification requirements</b>	<b>25</b>
8.1	Dimensional and marking requirements	25
8.2	Optical performance requirements	25
8.3	Mechanical performance requirements	27
8.4	Environmental performance requirements	30
<b>Annex A (normative) Adaptor matched reference plug details</b>		<b>32</b>
<b>Annex B (normative) Sample size and product sourcing requirements</b>		<b>33</b>
<b>Annex C (informative) Reference connector details</b>		<b>34</b>
C.1	Reference plug	34
C.2	Test details	34
<b>Bibliography</b>		<b>35</b>

## Figures

Figure 1 – Outline dimensions – Plug.....	11
Figure 2 – Outline dimensions – Adaptor .....	12
Figure 3 – Mating face and other limit dimensions – Plug.....	15
Figure 4 – Ferrule end face geometry – After termination.....	17
Figure 5 – Positioning of fibre core .....	18
Figure 6 – Ferrule end face geometry – Allowable undercut.....	19
Figure 7 – Requirements for the attenuation grades for the plug fibre core connected to the ideal reference.....	20
Figure 8 – Mating face and other dimensions – Adaptor .....	21
Figure 9 – Pin gauge for adaptor .....	23

## Tables

Table 1 – Ensured level of random attenuation.....	6
Table 2 – Preferred colour scheme .....	8
Table 3 – Plug variants .....	9
Table 4 – Adaptor variants.....	10
Table 5 – Geometrical parameters .....	18
Table 6 – Optical performance requirements .....	25
Table 7 – Mechanical performance requirements .....	27
Table 8 – Environmental performance requirements .....	30
Table A.1 .....	32
Table B.1 .....	33
Table C.1 .....	34
Table C.2 .....	34

## 1 Scope

### 1.1 Product definition

This standard contains the initial, start of life dimensional, optical, mechanical and environmental performance requirements which a terminated and assembled singlemode resilient alignment sleeve LSH-PC simplex connector set (plug-adaptor-plug), adaptor and patchcord must 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 3.5.

### 1.2 Intermateability

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, 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 an uncertain level of random attenuation performance.

**Table 1 – Ensured level of random attenuation**

Plug variant/Attenuation grade	C	B
C	C	C
B	C	B

### 1.3 Operating environment

The tests selected combined with the severities and durations are representative of a 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.

## 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.

EN 60793-2-50	Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres (IEC 60793-2-50)
EN 61300-2-1	Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-1: Tests – Vibration (sinusoidal) (IEC 61300-2-1)
EN 61300-2-2	Part 2-2: Tests – Mating durability (IEC 61300-2-2)



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