



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 50377-8-5:2007

ICS 33.180.20

**CONNECTOR SETS AND INTERCONNECT  
COMPONENTS TO BE USED IN OPTICAL  
FIBRE COMMUNICATION SYSTEMS -  
PRODUCT SPECIFICATIONS -- PART 8-5:  
LSH-PC SIMPLEX TERMINATED ON IEC  
60793-2-50 CATEGORY B1.1 AND B1.3  
SINGLEMODE FIBRE, COMPOSITE  
FERRULE CATEGORY U**

National Standards  
Authority of Ireland  
Glasnevin, Dublin 9  
Ireland

Tel: +353 1 807 3800  
Fax: +353 1 807 3838  
<http://www.n sai.ie>

**Sales**

<http://www.standards.ie>

*This Irish Standard was  
published under the authority  
of the National Standards  
Authority of Ireland and  
comes into effect on:  
2 October 2007*

**NO COPYING WITHOUT NSAI  
PERMISSION EXCEPT AS  
PERMITTED BY COPYRIGHT  
.....**

© NSAI 2007

**Price Code L**

Údarás um Chaighdeáin Náisiúnta na hÉireann

*This page is intentionally left BLANK.*

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 50377-8-5**

August 2007

ICS 33.180.20

English version

**Connector sets and interconnect components  
to be used in optical fibre communication systems -  
Product specifications -  
Part 8-5: LSH-PC simplex terminated on IEC 60793-2-50  
category B1.1 and B1.3 singlemode fibre,  
composite ferrule category U**

Jeux de connecteurs et composants  
d'interconnexion à utiliser  
dans les systèmes de communication  
par fibres optiques -  
Spécifications de produit -  
Partie 8-5: Type LSH-PC simplex câblé  
sur une fibre unimodale des catégories  
B1.1 et B1.3 de la CEI 60793-2-50,  
ferrule composite, catégorie U

Steckverbindersätze  
und Verbindungselemente  
für Lichtwellenleiter-  
Datenübertragungssysteme -  
Produktnormen -  
Teil 8-5: Bauart LSH-PC-Simplex zum  
Anschluss an Einmodenfasern der Typen  
B1.1 und B1.3 nach IEC 60793-2-50  
mit Komposit-Stift für die Kategorie U

This European Standard was approved by CENELEC on 2007-03-01. 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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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 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 50377-8-5 on 2007-03-01.

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) | 2008-03-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn   | (dow) | 2010-03-01 |
-

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

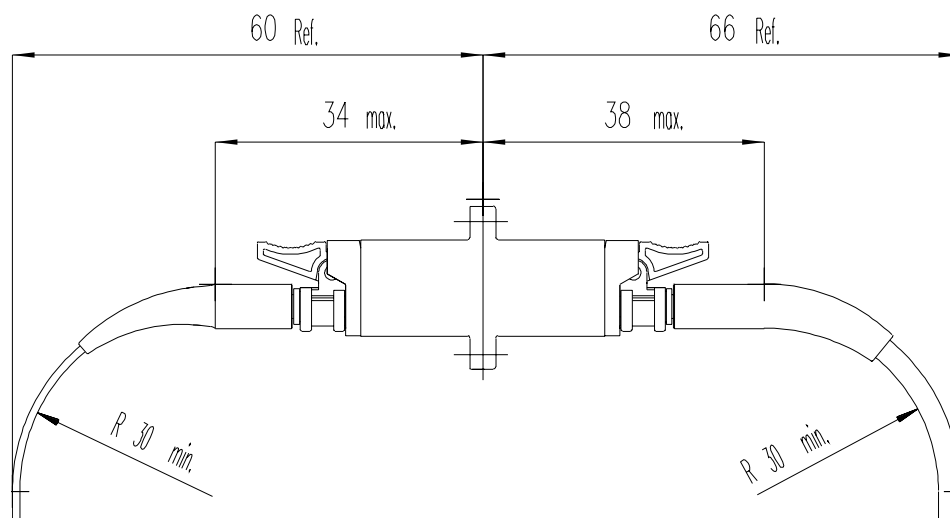
**Part 8-5: LSH-PC simplex terminated on IEC 60793-2-50 category B1.1 and B1.3 singlemode fibre,  
composite ferrule category U**

Coupling mechanism:	Description Latched push-pull	Application:	Performance For use in category U (uncontrolled environment)
Configuration:	Plug/adaptor/plug	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
Fibre category:	EN 60793-2-50 Types B1.1 and B1.3		
Cable type:	See Table 3	Return loss grades:	2: $\geq 45$ dB

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 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 61755-3-6	Fibre optic connector optical interfaces - Part 3-6: Optical interface - 2,5 mm and 1,25 mm diameter cylindrical 8 degrees angled-PC composite ferrule using Cu-Ni-alloy as fibre surrounding material, single mode fibre (IEC 61755-3-6)
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:



## Contents

<b>1</b>	<b>Scope</b> .....	<b>5</b>
1.1	Product definition .....	5
1.2	Intermateability .....	5
1.3	Operating environment.....	5
1.4	Reliability.....	5
1.5	Quality assurance .....	5
<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.....	7
3.4	Dimensions .....	7
3.5	Colour and marking .....	7
<b>4</b>	<b>Variants</b> .....	<b>8</b>
4.1	Terminated plug.....	8
4.2	Adaptor.....	9
<b>5</b>	<b>Dimensional requirements</b> .....	<b>10</b>
5.1	Outline dimensions.....	10
5.2	Mating face and other limit dimensions .....	14
<b>6</b>	<b>Tests</b> .....	<b>23</b>
6.1	Sample size .....	23
6.2	Test and measurement methods .....	23
6.3	Test sequence.....	23
6.4	Pass/fail criteria.....	23
<b>7</b>	<b>Test report</b> .....	<b>23</b>
<b>8</b>	<b>Testing requirements</b> .....	<b>24</b>
8.1	Dimensional and marking requirements .....	24
8.2	Optical performance requirements.....	24
8.3	Mechanical performance requirements.....	26
8.4	Environmental performance requirements.....	31
	<b>Annex A (normative) Adaptor matched reference plug details</b> .....	<b>34</b>
	<b>Annex B (informative) Reference connector details</b> .....	<b>35</b>
	<b>Annex C (normative) Sample size and product sourcing requirements</b> .....	<b>36</b>
	<b>Bibliography</b> .....	<b>37</b>
	Figure 1 - Outline dimensions - Plug .....	10
	Figure 2 - Outline dimensions - Adaptor.....	11
	Figure 3 - Mating face and other limit dimensions - Plug.....	14
	Figure 4 - Ferrule end face geometry - After termination.....	16
	Figure 5 - Positioning of fibre core.....	17
	Figure 6 - Ferrule end face geometry - Allowable undercut.....	18
	Figure 7 - Requirements for the attenuation grades for the plug fibre core connected to the ideal reference.....	19
	Figure 8 - Mating face and other dimensions - Adaptor .....	20
	Figure 9 - Pin gauge for adaptor .....	22
	Table 1 - Ensured level of random attenuation .....	5
	Table 2 - Preferred colour scheme.....	7
	Table 3 - Plug variants .....	8
	Table 4 - Adaptor variants.....	9
	Table 5 - Geometrical parameters.....	17
	Table 6 - Optical performance requirements.....	24
	Table 7 - Mechanical performance requirements .....	26

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
  - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-