



**NSAI**  
Standards

Irish Standard  
I.S. EN 61754-15:2009

Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces -- Part 15: Type LSH connector family

**I.S. EN 61754-15:2009**

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

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

*This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):*

*NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.*

*This document is based on:*

EN 61754-15:2009

*Published:*

2009-09-02

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

2009-09-08

ICS number:

NOTE: If blank see CEN/CENELEC cover page

NSAI  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

Sales:  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

Údarás um Chaighdeán Náisiúnta na hÉireann

## National Foreword

I.S. EN 61754-15:2009 is the adopted Irish version of the European Document EN 61754-15:2009, Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces -- Part 15: Type LSH connector family

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with this document does not of itself confer immunity from legal obligations.**

*In line with international standards practice the decimal point is shown as a comma (,) throughout this document.*

This page is intentionally left blank

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61754-15**

September 2009

ICS 33.180.20

Supersedes EN 61754-15:2001 and CECC 86 275-801:1999

English version

**Fibre optic interconnecting devices and passive components -  
Fibre optic connector interfaces -  
Part 15: Type LSH connector family  
(IEC 61754-15:2009)**

Dispositifs d'interconnexion  
et composants passifs à fibres optiques -  
Interfaces de connecteurs  
pour fibres optiques -  
Partie 15: Famille de connecteurs  
de type LSH  
(CEI 61754-15:2009)

Lichtwellenleiter -  
Verbindungselemente  
und passive Bauteile -  
Steckgesichter  
von Lichtwellenleiter-Steckverbindern -  
Teil 15: Steckverbinderfamilie  
der Bauart LSH  
(IEC 61754-15:2009)

This European Standard was approved by CENELEC on 2009-07-01. 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: Avenue Marnix 17, B - 1000 Brussels**

## **Foreword**

The text of document 86B/2835/FDIS, future edition 2 of IEC 61754-15, prepared by SC 86B, Fibre optic interconnecting devices and passive components, of IEC TC 86, Fibre optics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61754-15 on 2009-07-01.

This European Standard supersedes EN 61754-15:2001 and CECC 86 275-801:1999.

The main changes with regard to EN 61754-15:2001 are to reconsider the figures and the dimensions of the interface.

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) 2010-04-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2010-07-01

Annex ZA has been added by CENELEC.

---

## **Endorsement notice**

The text of the International Standard IEC 61754-15:2009 was approved by CENELEC as a European Standard without any modification.

---

## **Annex ZA** (normative)

### **Normative references to international publications with their corresponding European publications**

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61755-3 (mod)	Series	Fibre optic connector optical interfaces - Part 3: Optical interface	EN 61755-3	Series
ISO 8015	- <sup>1)</sup>	Technical drawings - Fundamental tolerancing principle	-	-

---

<sup>1)</sup> Undated reference.

This page is intentionally left blank



**IEC 61754-15**  
(Second edition – 2009)

**Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces –**

**Part 15: Type LSH connector family**

**IEC 61754-15**  
(Deuxième édition – 2009)

**Dispositifs d'interconnexion et composants passifs à fibres optiques – Interfaces de connecteurs pour fibres optiques –**

**Partie 15: Famille de connecteurs de type LSH**

**CORRIGENDUM 1**

*Replace, in Table 2, the existing row R by the following new row R:*

R	4,9 mm	5,11 mm
---	--------	---------

*Remplacer, dans le Tableau 2, la ligne R existante par la nouvelle ligne R suivante:*

R	4,9 mm	5,11 mm
---	--------	---------

*This page is intentionally left BLANK.*



**IEC 61754-15**

Edition 2.0 2009-06

# **INTERNATIONAL STANDARD**

---

**Fibre optic interconnecting devices and passive components – Fibre optic  
connector interfaces –  
Part 15: Type LSH connector family**





## THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2009 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester.

If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Central Office  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland  
Email: [inmail@iec.ch](mailto:inmail@iec.ch)  
Web: [www.iec.ch](http://www.iec.ch)

### About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

### About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

- Catalogue of IEC publications: [www.iec.ch/searchpub](http://www.iec.ch/searchpub)

The IEC on-line Catalogue enables you to search by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, withdrawn and replaced publications.

- IEC Just Published: [www.iec.ch/online\\_news/justpub](http://www.iec.ch/online_news/justpub)

Stay up to date on all new IEC publications. Just Published details twice a month all new publications released. Available on-line and also by email.

- Electropedia: [www.electropedia.org](http://www.electropedia.org)

The world's leading online dictionary of electronic and electrical terms containing more than 20 000 terms and definitions in English and French, with equivalent terms in additional languages. Also known as the International Electrotechnical Vocabulary online.

- Customer Service Centre: [www.iec.ch/webstore/custserv](http://www.iec.ch/webstore/custserv)

If you wish to give us your feedback on this publication or need further assistance, please visit the Customer Service Centre FAQ or contact us:

Email: [csc@iec.ch](mailto:csc@iec.ch)  
Tel.: +41 22 919 02 11  
Fax: +41 22 919 03 00



**IEC 61754-15**

Edition 2.0 2009-06

# **INTERNATIONAL STANDARD**

---

**Fibre optic interconnecting devices and passive components – Fibre optic  
connector interfaces –  
Part 15: Type LSH connector family**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

PRICE CODE

**N**

---

ICS 33.180.20

ISBN 978-2-88910-565-6

## CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references .....	5
3 Description .....	5
4 Interfaces .....	5
Annex A (informative) Panel cutout.....	14
Figure 1 – Simplex plug interface.....	6
Figure 2 – APC/PC endface geometry.....	7
Figure 3 – Duplex plug interface .....	7
Figure 4 – Different types of adaptor interface with optional adaptor flanges.....	10
Figure 5 – Pin gauge for adaptor.....	12
Figure 6 – Active device interface .....	12
Figure A.1 – Simplex and duplex adaptor cutout .....	14
Table 1 – Intermateability between plugs, adaptors and active device.....	6
Table 2 – Dimensions of plug connector interface .....	8
Table 3 – Ferrule grade table for plug connector interface .....	9
Table 4 – Dimensions of the simplex and duplex adaptor interface .....	11
Table 5 – Gauge pin dimensions.....	12
Table 6 – Dimensions of active device interface.....	13
Table 7 – Grade table .....	13
Table A.1 – Dimensions of the simplex and duplex adaptor cutout .....	14

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

---

**FIBRE OPTIC INTERCONNECTING  
DEVICES AND PASSIVE COMPONENTS –  
FIBRE OPTIC CONNECTOR INTERFACES –**
**Part 15: Type LSH connector family**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61754-15 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition published in 1999. The main changes with regard to the previous edition are to reconsider the figures and the dimensions of the interface.

The text of this standard is based on the following documents:

FDIS	Report on voting
86B/2835/FDIS	86B/2876/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts in the IEC 61754 series, under the general title *Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.



# **FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC CONNECTOR INTERFACES –**

## **Part 15: Type LSH connector family**

### **1 Scope**

This part of IEC 61754 defines the standard interface dimensions for the type LSH family of connectors.

### **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.

IEC 61755-3 (all parts), *Fibre optic connector optical interface – Part 3: Optical interface*

ISO 8015, *Technical drawings – Fundamental tolerancing principle*

### **3 Description**

The parent connector for the type LSH connector family is a single-position plug connector which is characterized by a 2,5 mm nominal ferrule diameter. It includes a push-click-pull coupling mechanism, which is spring-loaded relative to the ferrule in the direction of the optical axis. The optical alignment mechanism of the connectors is a rigid bore sleeve or a resilient sleeve style.

### **4 Interfaces**

The pages that follow define the standard interfaces for the type LSH connector family.

This standard contains the following standard interfaces:

- Interface 61754-15-1 Simplex plug connector PC-interface
- Interface 61754-15-2 Simplex adaptor interface
- Interface 61754-15-3 Duplex plug connector PC-interface
- Interface 61754-15-4 Duplex adaptor interface
- Interface 61754-15-5 Simplex plug connector interface – APC 8°
- Interface 61754-15-6 Duplex plug connector interface – APC 8°
- Interface 61754-15-7 Active device interface

The following standards are intermateable.

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](#)
-