



BSI Standards Publication

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

Part 14-1: Simplex and duplex cords made from simplex plugs with cylindrical ferrules, using EN 60793 2 50 single-mode B1 or B6 fibre for Category C according to EN 61753-1

National foreword

This British Standard is the UK implementation of EN 50377-14-1:2018. It supersedes BS EN 50377-14-1:2011, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/86/2, Fibre optic interconnecting devices and passive components.

A list of organizations represented on this committee can be obtained on request to its secretary.

BSI, as a member of CEN, is obliged to publish EN 50377-14-1:2018 as a British Standard. However, attention is drawn to the fact that during the development of this European Standard, the UK committee voted against its approval as a European Standard.

The UK committee rejected the final vote draft of EN 50377-14-1:2018 due to a number of technical errors in the testing section of the document where the conditions of the test did not match the standards quoted for the test. The tests concerned were: Test No. 6: Torsion; Test No. 7: Static side load; Test No. 8: Flexing strain relief of fibre optic devices; and Test No. 9: Ferrule compression force.

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

© The British Standards Institution 2018
Published by BSI Standards Limited 2018

ISBN 978 0 580 95603 4

ICS 33.180.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2018.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

English Version

**Connector sets and interconnect components to be used in
optical fibre communication systems - Product specifications -
Part 14-1: Simplex and duplex cords made from simplex plugs
with cylindrical ferrules, using EN 60793 2 50 single-mode B1 or
B6 fibre for Category C according to EN 61753-1**

Jeux de connecteurs et composants d'interconnexion à
utiliser dans les systèmes de communication par fibres
optiques - Spécifications de produit - Partie 14 1: Cordons
simplex et duplex constitués de fiches simplex avec ferrules
cylindriques, utilisant les fibres unimodales B1 ou B6 de
l'EN 60793-2-50 pour la catégorie C conformément à l'EN
61753-1

Steckverbindersätze und Verbindungsbaulemente für
Lichtwellenleiter-Datenübertragungssysteme -
Produktnormen - Teil 14-1: Simplex- und Duplex-Kabel mit
Simplex-Steckverbindern mit zylindrischen Ferrulen mit
Einmodenfasern vom Typ B1 oder B6 nach EN 60793-2-50
für Kategorie C nach EN 61753-1

This European Standard was approved by CENELEC on 2018-05-14. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

© 2018 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

Ref. No. EN 50377-14-1:2018 E

Contents

Page

European foreword	4
1 Scope	6
1.1 Product definition	6
1.2 Intermateability of the plugs	6
1.3 Operating environment	6
1.4 Reliability	6
1.5 Quality assurance	6
2 Normative references	6
3 Terms and definitions	8
4 Description	8
4.1 General	8
4.2 Plug	8
4.3 Cable	8
4.4 Materials	8
4.5 Marking	8
5 Variants	9
6 Dimensional requirements	10
6.1 Outline dimensions	10
7 Tests	10
7.1 Sample size	10
7.2 Test and measurement methods	10
7.3 Test sequence	10
7.4 Pass/fail criteria	11
8 Test report	11
9 Product qualification requirements	11
9.1 Dimensional and marking requirements	11
9.2 Optical performance requirements	11
9.3 Fibre optic connector end face	12
9.4 Mechanical performance requirements	13
9.5 Environmental performance requirements	15
Annex A (normative) Tests, sample size and product sourcing requirements	16
Bibliography	17
Figures	
Figure 1 — Length of cord	10
Tables	
Table 1 — Ensured level of random attenuation	6
Table 2 — XXX₁ and XXX₄ variants	9
Table 3 — X₂ and X₅ variants	9
Table 4 — X₃ and X₆ variants	9
Table 5 — XXX₇ variants	9
Table 6 — X₈ variants	9

Table 7 — XX ₉ variants	10
Table 8 — Optical performance requirements	12
Table 9 — End face requirements	13
Table 10 — Mechanical performance requirements	13
Table 11 — Environmental performance requirements	15
Table A.1 — Test, sample size and sourcing	16

European foreword

This document (EN 50377-14-1:2018) has been prepared by CLC/TC 86BXA “*Fibre optic interconnect, passive and connectorised components*”.

The following dates are fixed:

- latest date by which this document has (dop) 2019-02-14
to be implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2019-05-14
standards conflicting with this document
have to be withdrawn

This document supersedes EN 50377-14-1:2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.