IEC 61754-7

Edition 3.0 2008-03

INTERNATIONAL STANDARD

Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces – Part 7: Type MPO connector family

INTERNATIONAL ELECTROTECHNICAL COMMISSION

PRICE CODE U

ICS 33.180.20

ISBN 2-8318-9667-3

CONTENTS

FOREWORD 3
1 Scope 5
2 Description 5
3 Interfaces 5

Figure 1 – MPO connector configurations 6
Figure 2 – MPO female plug connector angled interface 7
Figure 3 – Optical datum target location diagrams 9
Figure 4 – Gauge pin 11
Figure 5 – Gauge for plug 12
Figure 6 – MPO male plug connector angled interface 13
Figure 7 – MPO adaptor interface 15
Figure 8 – MPO female plug connector flat interface 17
Figure 9 – MPO male plug connector flat interface 19
Figure 10 – MPO backplane housing interface 21
Figure 11 – MPO printed board housing interface 22
Figure 12 – MPO aligned key adaptor interface 27

Table 1 – Dimensions of the MPO female plug connector angled interface 8
Table 2 – Dimensions of the gauge pin 11
Table 3 – Dimensions of the gauge for plug 12
Table 4 – Dimensions of the MPO male plug connector angled interface 14
Table 5 – Dimensions of the MPO adaptor interface 16
Table 6 – Dimensions of the MPO female plug connector flat interface 18
Table 7 – Dimensions of the MPO male plug connector flat interface 20
Table 8 – Dimensions of the MPO backplane housing 23
Table 9 – Grade 24
Table 10 – Dimensions of the MPO printed board housing interface 26
Table 11 – Dimensions of the MPO aligned key adaptor interface 28

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 7: Type MPO 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.

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning MPO connectors.

The IEC takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured the IEC that he/she is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with the IEC. Information may be obtained from:

Intellectual Property Department,
Nippon Telegraph and Telephone Corporation,
20-2 Nishi-shinjuku 3-Chome Shinjukuku,
Tokyo 163-14, Japan.

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

International Standard IEC 61754-7 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This third edition cancels and replaces the second edition published in 2004. This third edition constitutes a technical revision.

Specific technical changes involve the addition of an aligned key adaptor interface definition to address all existing MPO applications.

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

CDV	Report on voting
86/2581/CDV	86/2672/RVC

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.[1]

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.

1 This new extended title will be applied to other parts of IEC 61754 as and when they are re-issued.

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

Part 7: Type MPO connector family

1 Scope

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