

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Fibre optic interconnecting devices and passive components – Fibre optic circulators – Generic specification

Dispositifs d'interconnexion et composants passifs fibroniques – Circulateurs fibroniques – Spécification générique





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CONTENTS

FOREWORD	4
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
3.1 Component terms.....	7
3.2 Performance terms	8
4 Requirements	9
4.1 Classification	9
4.1.1 General	9
4.1.2 Technology, port numbers and functions.....	9
4.1.3 Wavelength bands	9
4.1.4 Interface style.....	10
4.2 Documentation.....	10
4.2.1 Symbols	10
4.2.2 Drawings	10
4.2.3 Tests and measurements.....	10
4.2.4 Test report.....	10
4.2.5 Instructions for use	11
4.3 Standardization system.....	11
4.3.1 Interface standards.....	11
4.3.2 Performance standards.....	11
4.3.3 Reliability standards	11
4.4 Design and construction.....	11
4.4.1 Materials	11
4.4.2 Workmanship.....	11
4.5 Quality	12
4.6 Performance requirements	12
4.7 Identification and marking	12
4.7.1 General	12
4.7.2 Component marking.....	12
4.7.3 Package marking	12
4.8 Packaging.....	12
4.9 Storage conditions	12
4.10 Safety	13
Annex A (informative) Example of technology of bulk circulator based on magneto-optic effect.....	14
Annex B (informative) Example of application of a circulator	15
Annex C (informative) Examples of interface style	16
Bibliography.....	17
Figure 1 – Completely circulated type configuration	7
Figure 2 – Incompletely circulated type configuration	7
Figure 3 – Insertion loss	8
Figure 4 – Isolation	8
Figure A.1 – Example of a circulator	14

Figure B.1 – Example of application of a circulator..... 15

Figure C.1 – Examples of interface style for fibre optic circulators 16

Table 1 – Example of a typical fibre optic circulator classification9

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING
DEVICES AND PASSIVE COMPONENTS –
FIBRE OPTIC CIRCULATORS – GENERIC SPECIFICATION**

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IEC 62077 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2015. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) harmonization of terms and definitions with IEC TS 62627-09;
- b) change of Clause 4 regarding requirements.

The text of this International Standard is based on the following documents:

Draft	Report on voting
86B/4624/FDIS	86B/4645/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC CIRCULATORS – GENERIC SPECIFICATION

1 Scope

This document applies to circulators used in the field of fibre optics bearing all of the following features:

- they are non-reciprocal optical devices, in which each port is either an optical fibre or fibre optic connector;
- they are passive devices in accordance with the categorization and definition provided in IEC TS 62538;
- they have three or more ports for directionally transmitting optical power.

An example of optical circulator technology and application is described in Annex A and Annex B, respectively.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60027 (all parts), *Letter symbols to be used in electrical technology*

IEC 60050-731, *International Electrotechnical Vocabulary – Chapter 731: Optical fibre communication*, available at <http://www.electropedia.org>

IEC 60617, *Graphical symbols for diagrams*, available at <http://std.iec.ch/iec60617>

IEC 60825 (all parts), *Safety of laser products*

IEC 61300 (all parts), *Fibre optic interconnecting devices and passive components – Basic tests and measurement procedures*

IEC TR 61930, *Fibre optic graphical symbology*

IEC TS 62627-09, *Fibre optic interconnecting devices and passive components – Vocabulary for passive optical devices*

ISO 129-1, *Technical product documentation (TPD) – Presentation of dimensions and tolerances – Part 1: General principles*

ISO 286-1, *Geometrical product specifications (GPS) – ISO code system for tolerances on linear sizes – Part 1: Basis of tolerances, deviations and fits*

ISO 1101, *Geometrical product specifications (GPS) – Geometrical tolerancing – Tolerances of form, orientation, location and run-out*

ISO 8601-1, *Date and time – Representations for information interchange – Part 1: Basic rules*