

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Fibre optic interconnecting devices and passive components - Fibre optic WDM devices -**

**Part 1: Generic specification**

**Dispositifs d'interconnexion et composants passifs fibroniques - Dispositifs MRL fibroniques -**

**Partie 1: Spécification générique**



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## CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions.....	7
3.1 Device terms.....	7
3.2 Performance terms.....	8
4 Requirements.....	25
4.1 Classification.....	25
4.1.1 General.....	25
4.1.2 Technology.....	25
4.1.3 Port configuration.....	26
4.1.4 Wavelength (channel) spacing.....	26
4.1.5 Internal structure.....	26
4.1.6 Wavelength band.....	27
4.1.7 Temperature control.....	27
4.1.8 Interface style.....	27
4.2 Documentation.....	27
4.2.1 Symbols.....	27
4.2.2 Drawings.....	27
4.2.3 Tests and measurements.....	27
4.2.4 Test report.....	28
4.2.5 Instructions for use.....	28
4.3 Standardisation system.....	28
4.3.1 Interface standards.....	28
4.3.2 Performance standards.....	28
4.3.3 Reliability standards.....	28
4.4 Design and construction.....	28
4.4.1 Materials.....	28
4.4.2 Workmanship.....	29
4.5 Quality.....	29
4.6 Performance requirements.....	29
4.7 Identification and marking.....	29
4.7.1 General.....	29
4.7.2 Device marking.....	29
4.7.3 Package marking.....	29
4.8 Packaging.....	30
4.9 Storage conditions.....	30
10 Safety.....	30
Annex A (informative) Transfer matrix.....	31
A.1 General.....	31
A.2 Transfer matrix.....	31
A.3 Transfer matrix coefficient.....	32
A.4 Logarithmic transfer matrix.....	32
Annex B (informative) Specific performances of WDM devices for bidirectional transmission system (example).....	34
B.1 Generic.....	34
B.2 Definition of near-end isolation and near-end crosstalk.....	35

Annex C (informative) Transfer matrix as applications of WDM devices (example).....	36
C.1 Generic .....	36
C.2 Wavelength multiplexer .....	36
C.3 Wavelength demultiplexer.....	37
C.4 Wavelength multiplexer/demultiplexer .....	38
C.5 Wavelength router .....	39
C.6 Wavelength channel add/drop.....	40
Annex D (informative) Example of technology of thin film filter WDM devices .....	42
D.1 General .....	42
D.2 Thin film filter technology.....	42
D.3 Typical characteristics of thin film filter .....	43
Annex E (informative) Example of technology of fibre fused WDM devices .....	44
E.1 General .....	44
E.2 Typical characteristics of fibre fused WDM devices .....	45
Annex F (informative) Example of arrayed waveguide grating (AWG) technology .....	46
F.1 General .....	46
F.2 Typical characteristics of AWG.....	46
Annex G (informative) Example of FBG filter technology .....	48
G.1 General .....	48
G.2 Typical characteristics of FBG filter .....	49
Annex H (informative) Example of interface style .....	50
Bibliography.....	51
Figure 1 – Illustration of channel wavelength range .....	9
Figure 2 – Illustration of insertion loss .....	10
Figure 3 – Illustration of ripple .....	10
Figure 4 – Illustration of channel insertion loss variation.....	11
Figure 5 – Illustration of isolation wavelength .....	12
Figure 6 – Illustration of isolation wavelength range .....	13
Figure 7 – Illustration of adjacent channel isolation.....	14
Figure 8 – Illustration of non-adjacent channel isolation.....	15
Figure 9 – Illustration of maximum adjacent channel crosstalk.....	16
Figure 10 – Illustration of maximum non-adjacent channel crosstalk .....	17
Figure 11 – Illustration of a four-wavelength bidirectional system .....	20
Figure 12 – Illustration of channel extinction ratio .....	21
Figure 13 – Illustration of free spectral range .....	22
Figure 14 – Illustration of polarization dependent centre wavelength (PDCW).....	23
Figure 15 – Illustration of $X$ dB bandwidth .....	25
Figure A.1 – Example of a six-port device, with two input and four output ports.....	31
Figure A.2 – Illustration of transfer matrix coefficient.....	32
Figure B.1 – Uni-directional and bi-directional transmission system application of a 1 × 2 WDM device .....	34
Figure C.1 – Example of a wavelength multiplexer .....	36
Figure C.2 – Example of a wavelength demultiplexer.....	37
Figure C.3 – Example of a wavelength multiplexer/demultiplexer .....	38

Figure C.4 – Example of a wavelength router .....	39
Figure C.5 – Example of wavelength channel add/drop.....	40
Figure D.1 – Schematic configuration of a thin film filter WDM device .....	42
Figure D.2 – Structure of multilayer thin film.....	43
Figure D.3 – Typical characteristics of 1 510 nm and C-band WDM device using thin film filter technology.....	43
Figure E.1 – Structure of a fused bi-conical tapered 2x2 coupler .....	44
Figure E.2 – Typical scheme for a fused coupler.....	45
Figure E.3 – Typical characteristics of a fibre fused WDM device .....	45
Figure F.1 – Basic configuration of AWG.....	46
Figure F.2 – Example of AWG characteristics.....	47
Figure G.1 – Usage of fibre Bragg grating filter.....	48
Figure G.2 – Function and mechanism of fibre Bragg grating .....	48
Figure G.3 – Example of FBG filter characteristics .....	49
Figure H.1 – Example of interface style for WDM devices .....	50
Table 1 – Example of a typical fibre optic WDM device classification .....	26

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Fibre optic interconnecting devices and passive components -  
Fibre optic WDM devices -  
Part 1: Generic specification**

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IEC 62074-1 has been prepared by subcommittee SC 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics. It is an International Standard.

This third edition cancels and replaces the second edition published in 2014. 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) simplified classification, documentation and standardization system in Clause 4, and moving interface style to Annex H.

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

Draft	Report on voting
86B/5031/FDIS	86B/5074/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

A list of all parts in the IEC 62074 series, published under the general title *Fibre optic interconnecting devices and passive components – Fibre optic WDM devices*, can be found on the IEC website.

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- reconfirmed,
- withdrawn, or
- revised.

## 1 Scope

This part of IEC 62074 applies to fibre optic wavelength division multiplexing (WDM) devices. These have all of the following general features:

- they are passive, in that they contain no optoelectronic or other transducing elements; however they can use temperature control only to stabilize the device characteristics; they exclude any optical switching functions;
- they have three or more ports for either the entry or exit of optical power, or both, and share optical power among these ports in a predetermined fashion depending on the wavelength;
- the ports are optical fibres, or optical fibre connectors.

This document establishes uniform requirements for the following:

- optical, mechanical and environmental properties.

## 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 60050-731, *International Electrotechnical Vocabulary (IEV) – Part 731: Optical fibre communication* (available at [www.electropedia.org](http://www.electropedia.org))

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

IEC 61753 (all parts), *Fibre optic interconnecting devices and passive components - Performance standard*

IEC 62005 (all parts), *Reliability of fibre optic interconnecting devices and passive components*

IEC TS 62627-09:2016, *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*