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Irish Standard  
I.S. EN 62074-1:2014

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

## I.S. EN 62074-1:2014

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

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EUROPEAN STANDARD

**EN 62074-1**

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Supersedes EN 62074-1:2009

English version

**Fibre optic interconnecting devices and passive components -  
Fibre optic WDM devices -  
Part 1: Generic specification  
(IEC 62074-1:2014)**

Dispositifs d'interconnexion et dispositifs  
passifs à fibres optiques -  
Dispositifs WDM à fibres optiques -  
Partie 1: Spécification générique  
(CEI 62074-1:2014)

Lichtwellenleiter -  
Verbindungselemente und passive  
Bauteile -  
Lichtwellenleiter-WDM-Bauteile -  
Teil 1: Fachgrundspezifikation  
(IEC 62074-1:2014)

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**CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## **Foreword**

The text of document 86B/3700/FDIS, future edition 2 of IEC 62074-1, 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 approved by CENELEC as EN 62074-1:2014.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-12-13
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-03-13

This document supersedes EN 62074-1:2009.

EN 62074-1:2014 includes the following significant technical changes with respect to EN 62074-1:2009:

- substantial updating to the definitions;
- the addition of informative Annexes C to G, giving examples of technical information concerning WDM devices.

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## Annex ZA (normative)

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

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 60027	series	Letter symbols to be used in electrical technology	EN 60027	series
IEC 60050-731	-	International Electrotechnical Vocabulary (IEV) Chapter 731: Optical fibre communication	-	-
IEC 60695-11-5	-	Fire hazard testing Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	EN 60695-11-5	-
IEC 60825-1	-	Safety of laser products Part 1: Equipment classification and requirements	EN 60825-1	-
IEC/TR 61931	-	Fibre optic - Terminology	-	-
ISO 129-1	-	Technical drawings - Indication 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	EN ISO 286-1	-
ISO 1101	-	Geometrical product specifications (GPS) - Geometrical tolerancing - Tolerances of form, orientation, location and run-out	EN ISO 1101	-
ISO 8601	-	Data elements and interchange formats - Information interchange - Representation of dates and times	-	-

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**IEC 62074-1**

Edition 2.0 2014-02

# **INTERNATIONAL STANDARD**



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





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**IEC 62074-1**

Edition 2.0 2014-02

# INTERNATIONAL STANDARD



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

INTERNATIONAL  
ELECTROTECHNICAL  
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## CONTENTS

FOREWORD.....	5
1 Scope.....	7
2 Normative references .....	7
3 Terms and definitions .....	8
3.1 Basic term definitions.....	8
3.2 Component definitions .....	9
3.3 Performance parameter definitions .....	10
4 Requirements .....	25
4.1 Classification .....	25
4.1.1 General .....	25
4.1.2 Type.....	25
4.1.3 Style.....	25
4.1.4 Variant.....	26
4.1.5 Assessment level.....	26
4.1.6 Normative reference extension .....	27
4.2 Documentation.....	27
4.2.1 Symbols .....	27
4.2.2 Specification system.....	27
4.2.3 Drawings .....	28
4.2.4 Measurements .....	29
4.2.5 Test data sheets .....	29
4.2.6 Instructions for use .....	29
4.3 Standardization system.....	29
4.3.1 Performance standards.....	29
4.3.2 Reliability standard .....	30
4.3.3 Interlinking.....	30
4.4 Design and construction.....	31
4.4.1 Materials .....	31
4.4.2 Workmanship.....	31
4.5 Performance requirements .....	31
4.6 Identification and marking .....	31
4.6.1 General .....	31
4.6.2 Variant identification number .....	31
4.6.3 Component marking.....	32
4.6.4 Package marking.....	32
4.7 Safety .....	32
Annex A (informative) Transfer matrix.....	34
A.1 General.....	34
A.2 Transfer matrix .....	34
A.3 Transfer matrix coefficient.....	35
A.4 Logarithmic transfer matrix .....	35
Annex B (informative) Specific performances of WDM devices for bidirectional transmission system (example).....	37
B.1 Generic.....	37
B.2 Definition of near-end isolation and near-end crosstalk .....	38
Annex C (informative) Transfer matrix as applications of WDM devices (example).....	40

C.1	Generic .....	40
C.2	Wavelength multiplexer .....	40
C.3	Wavelength demultiplexer .....	41
C.4	Wavelength multiplexer/demultiplexer .....	42
C.5	Wavelength router.....	43
C.6	Wavelength channel add/drop .....	44
Annex D	(informative) Example of technology of thin film filter WDM devices .....	46
D.1	General.....	46
D.2	Thin film filter technology .....	46
D.3	Typical characteristics of thin film filter .....	47
Annex E	(informative) Example of technology of fibre fused WDM devices .....	48
E.1	General.....	48
E.2	Typical characteristics of fibre fused WDM devices .....	49
Annex F	(informative) Example of arrayed waveguide grating (AWGs) technology .....	50
F.1	General.....	50
F.2	Typical characteristics of AWG .....	50
Annex G	(informative) Example of FBG filter technology .....	52
G.1	General.....	52
G.2	Typical characteristics of FBG filter.....	53
Bibliography	.....	54
Figure 1	– Example of a six-port device, with two input and four output ports.....	8
Figure 2	– Illustration of channel wavelength range .....	11
Figure 3	– Illustration of insertion loss .....	12
Figure 4	– Illustration of ripple .....	12
Figure 5	– Illustration of channel insertion loss variation .....	13
Figure 6	– Illustration of isolation wavelength.....	14
Figure 7	– Illustration of isolation wavelength range.....	15
Figure 8	– Illustration of adjacent channel isolation.....	16
Figure 9	– Illustration of non-adjacent channel isolation.....	17
Figure 10	– Illustration of maximum adjacent channel crosstalk .....	18
Figure 11	– Illustration of maximum non-adjacent channel crosstalk .....	19
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 16	– Wavelength-selective branching device .....	26
Figure 17	– Wavelength-selective branching device.....	26
Figure 18	– Wavelength-selective branching device.....	26
Figure 19	– Wavelength-selective branching device.....	26
Figure A.1	– Example of a six-port device, with two input and four output ports .....	34
Figure A.2	– Illustration of transfer matrix coefficient .....	35
Figure B.1	– Uni-directional and bi-directional transmission system application of a 1 x 2 DM device .....	37
Figure B.2	– Illustration of a four-wavelength bidirectional system .....	39

Figure C.1 – Example of a wavelength multiplexer .....	40
Figure C.2 – Example of a wavelength demultiplexer .....	41
Figure C.3 – Example of a wavelength multiplexer/demultiplexer .....	42
Figure C.4 – Example of a wavelength router.....	43
Figure C.5 – Example of wavelength channel add/drop.....	44
Figure D.1 – Schematic configuration of a thin film filter WDM device .....	46
Figure D.2 – Structure of multilayer thin film .....	47
Figure D.3 – Typical characteristics of 1 510 nm and C-band WDM device using thin film filter technology.....	47
Figure E.1 – Structure of a fused bi-conical tapered 2x2 coupler.....	48
Figure E.2 – Typical scheme for a fused coupler.....	49
Figure E.3 – Typical characteristics of a fibre fused WDM device.....	49
Figure F.1 – Basic configuration of AWG .....	50
Figure F.2 – Example of AWG characteristics .....	51
Figure G.1 – Usage of fibre Bragg grating filter .....	52
Figure G.2 – Function and mechanism of fibre Bragg grating .....	52
Figure G.3 – Example of FBG filter characteristics .....	53
Table 1 – Three-level IEC specification structure .....	27
Table 2 – Standards interlink matrix.....	31

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC WDM DEVICES –**

#### **Part 1: Generic specification**

#### FOREWORD

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International Standard IEC 62074-1 has been prepared by subcommittee SC 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 2009, and constitutes a technical revision.

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

- a) substantial updating to the definitions;
- b) the addition of informative Annexes C to G, giving examples of technical information concerning WDM devices.

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

FDIS	Report on voting
86B/3700/FDIS	86B/3722/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 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.

The committee has decided that the contents of this publication will remain unchanged until the stability 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

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# **FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC WDM DEVICES –**

## **Part 1: Generic specification**

### **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 may use temperature control only to stabilize the device characteristics; they exclude any optical switching functions;
- they have three or more ports for the entry and/or exit of optical power, 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 standard establishes uniform requirements for the following:

- optical, mechanical and environmental properties.

### **2 Normative references**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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*

IEC 60695-11-5, *Fire hazard testing – Part 11-5: Test flames – Needle-flame test method – Apparatus, confirmatory test arrangement and guidance*

IEC 60825-1, *Safety of laser products – Part 1: Equipment classification and requirements*

IEC 61931, *Fibre optics – Terminology*

ISO 129-1, *Technical drawings – Indication of dimensions and tolerances – Part 1: General principles*

ISO 286-1, *Geometrical product specifications (GPS) – ISO coding system for tolerances of linear sizes – Part 1: Bases of tolerances and fits*

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

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