

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Dynamic modules –  
Part 3-4: Performance specification templates – Multicast optical switches**

**Modules dynamiques –  
Partie 3-4: Modèles de spécification de performance – Commutateurs optiques  
multidiffusions**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## DYNAMIC MODULES –

Part 3-4: Performance specification templates –  
Multicast optical switches

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International Standard IEC 62343-3-4 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

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

FDIS	Report on voting
86C/1506/FDIS	86C/1508/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62343 series, published under the general title *Dynamic modules*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
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## INTRODUCTION

A multicast optical switch (MCOS) is a dynamic module (DM), which is mainly used in a reconfigurable optical add-drop multiplexer (ROADM) system to realize colourless, directionless and contentionless (CDC) function. A multicast optical switch functions as an optical switch and a non-wavelength selective fibre optic branching devices. The technical information regarding multicast optical switches and their applications in dense wavelength division multiplexing (DWDM) systems is described in IEC TR 62343-6-4.

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## DYNAMIC MODULES –

### Part 3-4: Performance specification templates – Multicast optical switches

#### 1 Scope

This part of IEC 62343 provides a performance specification template for multicast optical switches. The object is to provide a framework for the preparation of performance specifications or product specifications of multicast optical switches.

Specification parameters required in this document are considered as essential in the product specifications or performance specifications.

#### 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 61290-7-1, *Optical amplifiers – Test methods – Part 7-1: Out-of-band insertion losses – Filtered optical power meter method*

IEC 61300-2-14, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-14: Tests – High optical power*

IEC 61300-3-2, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-2: Examination and measurements – Polarization dependent loss in a single-mode fibre optic device*

IEC 61300-3-3, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-3: Examinations and measurements – Active monitoring of changes in attenuation and return loss*

IEC 61300-3-6, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-6: Examinations and measurements – Return loss*

IEC 61300-3-7, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-7: Examinations and measurements – Wavelength dependence of attenuation and return loss of single mode components*

IEC 61300-3-20, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-20: Examinations and measurements – Directivity of fibre optic branching devices*

IEC 61300-3-21, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-21: Examinations and measurements – Switching time*

IEC 61300-3-32, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-32: Examinations and measurements – Polarization mode dispersion measurement for passive optical components*