

# INTERNATIONAL STANDARD

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**Dynamic modules –  
Part 3-2: Performance specification templates – Optical channel monitor**



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INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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ICS 33.180.99, 33.180.01

ISBN 978-2-8322-3364-1

**Warning! Make sure that you obtained this publication from an authorized distributor.**

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## DYNAMIC MODULES –

Part 3-2: Performance specification templates –  
Optical channel monitor

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International Standard IEC 62343-3-2 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

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

CDV	Report on voting
86C/1324/CDV	86C/1371/RVC

Full information on the voting for the approval of this document 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 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 publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

An optical channel monitor (OCM) is a dynamic module that measures the optical characteristics, mainly power and frequency, of each channel present in a dense wavelength division multiplexing (DWDM) transmission line. The OCM is typically connected to an optical tap coupler which directs to the OCM anywhere between 1 % and 5 % of the optical signal in the fibre-optic transmission line. The data reported by the OCM are used in a reconfigurable optical add/drop multiplexer (ROADM) to dynamically equalize the power in the optical channels and to monitor the performance of the channels continuously over the lifetime of the system.

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## DYNAMIC MODULES –

### Part 3-2: Performance specification templates – Optical channel monitor

#### 1 Scope

This part of IEC 62343 provides a performance specification template for optical channel monitors. The objective of this performance specification template is to provide a framework for the performance specification of the optical channel monitor.

Additional specification parameters may be included for detailed product specifications or performance specifications. However, specification parameters specified in this document should not be removed from the detail product specifications or performance specifications.

This document outlines the parameters that are used to specify the performance of the optical channel monitor.

#### 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 61280-2-9, *Fibre optic communication subsystem test procedures – Part 2-9: Digital systems – Optical signal-to-noise ratio measurement for dense wavelength-division multiplexed systems*

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 61300-3-29, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-29: Examinations and measurements – Spectral transfer characteristics of DWDM devices*

IEC 62074-1, *Fibre optic interconnecting devices and passive components – Fibre optic WDM devices – Part 1: Generic specification*

IEC 62343, *Dynamic modules – General and guidance*

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62343 and IEC 61280-2-9 apply.

#### 4 Performance specification template

This specification template is a comprehensive compilation of all the performance parameters that may be relevant to optical channel monitors. Table 1 includes a column that indicates if a parameter is required or optional. The required parameters include the performance