

TECHNICAL REPORT

**Dynamic modules –
Part 6-7: Design guide – Optical channel monitor**



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**Dynamic modules –
Part 6-7: Design guide – Optical channel monitor**

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DYNAMIC MODULES –

Part 6-7: Design guide – Optical channel monitor

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IEC 62343-6-7, which is a technical report, has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
86C/1252/DTR	86C/1274B/RVC

Full information on the voting for the approval of this technical report 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 of 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 web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

DYNAMIC MODULES –

Part 6-7: Design guide – Optical channel monitor

1 Scope

This part of IEC 62343, which is a technical report, describes optical channel monitor modules, one of several important classes of dynamic modules that are used in dynamic optical networks. This report includes a description of the necessity of optical channel monitors, specifically in the context of dynamic optical networks, and how this is driving feature and performance requirements. This technical report surveys the different categories of optical channel monitor technologies that are being used and highlights some of their unique characteristics. Also described are different possible approaches for characterizing and specifying the performance of optical channel monitor modules.

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 62343, *Dynamic modules – General and guidance*

ITU-T Recommendation G.697, *Optical monitoring for dense wavelength division multiplexing systems*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

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

3.2 Abbreviations

Abbreviation	Term
ASE	amplified spontaneous emission
DWDM	dense wavelength division multiplexing
InGaAs	indium gallium arsenide
LOS	loss of signal
NIR	near infrared
OSNR	optical signal-to-noise ratio
PDL	polarization dependent loss
ROADM	reconfigurable optical add/drop multiplexers
SOP	state of polarization