STN	Dynamické moduly. Časť 3-2: Vzory špecifikácie prevádzkových vlastností. Optický monitor kanála.	STN EN 62343-3-2
		35 9258

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

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/16

Obsahuje: EN 62343-3-2:2016, IEC 62343-3-2:2016

## 124026

Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2017 Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

## EUROPEAN STANDARD NORME EUROPÉENNE

## EN 62343-3-2

EUROPÄISCHE NORM

July 2016

ICS 33.180.99; 33.180.01

**English Version** 

## Dynamic modules - Part 3-2: Performance specification templates - Optical channel monitor (IEC 62343-3-2:2016)

Dynamic modules - Part 3-2: Performance specification templates - Optical channel monitor (IEC 62343-3-2:2016) Dynamische Module - Teil 3-2: Vorlagen für Leistungsspezifikationen - Optische Kanalüberwachung (IEC 62343-3-2:2016)

This European Standard was approved by CENELEC on 2016-06-16. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



European Committee for Electrotechnical Standardization Comité Européen de Normalisation Electrotechnique Europäisches Komitee für Elektrotechnische Normung

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

© 2016 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

## European foreword

The text of document 86C/1324/CDV, future edition 1 of IEC 62343-3-2, prepared by SC 86C "Fibre optic systems and active devices" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62343-3-2:2016.

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)	2017-03-16
•	latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2019-06-16

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

## Endorsement notice

The text of the International Standard IEC 62343-3-2:2016 was approved by CENELEC as a European Standard without any modification.

## 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 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: <a href="http://www.cenelec.eu">www.cenelec.eu</a>.

Publication	Year	<u>Title</u>	<u>EN/HD</u>	Year
IEC 61280-2-9	-	Fibre optic communication subsystem tes procedures Part 2-9: Digital systems	stEN 61280-2-9 -	-
		Optical signal-to-noise ratio measuremer	nt	
		systems	a	
IEC 61300-3-21	-	Fibre optic interconnecting devices an passive components - Basic test an	dEN 61300-3-21 d	-
		measurement procedures - Part 3-21	1:	
		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	dEN 61300-3-29 d ): -	-
		Spectral transfer characteristics of DWDN devices	VI	
IEC 62074-1	-	Fibre optic interconnecting devices and passive components - Fibre optic WDM devices Part 1: Generic specification	dEN 62074-1 M	-
IEC 62343	-	Dynamic modules - General and guidance	EN 62343	-



# IEC 62343-3-2

Edition 1.0 2016-05

# INTERNATIONAL STANDARD

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





## THIS PUBLICATION IS COPYRIGHT PROTECTED Copyright © 2016 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Central Office	Tel.: +41 22 919 02 11
3, rue de Varembé	Fax: +41 22 919 03 00
CH-1211 Geneva 20	info@iec.ch
Switzerland	www.iec.ch

#### About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

#### About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

#### IEC Catalogue - webstore.iec.ch/catalogue

The stand-alone application for consulting the entire bibliographical information on IEC International Standards, Technical Specifications, Technical Reports and other documents. Available for PC, Mac OS, Android Tablets and iPad.

#### IEC publications search - www.iec.ch/searchpub

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

## IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and also once a month by email.

#### Electropedia - www.electropedia.org

The world's leading online dictionary of electronic and electrical terms containing 20 000 terms and definitions in English and French, with equivalent terms in 15 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

#### IEC Glossary - std.iec.ch/glossary

65 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

#### IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: csc@iec.ch.



## IEC 62343-3-2

Edition 1.0 2016-05

# INTERNATIONAL STANDARD

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

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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.

## – 2 – IEC 62343-3-2:2016 © IEC 2016

## CONTENTS

FORE	WORD	3	
INTRO	ODUCTION	5	
1 S	Scope	6	
2 N	Normative references6		
3 T	3 Terms and definitions6		
4 P	Performance specification template6		
Annex templa	x A (informative) Background and additional information on this specification ate	9	
A.1	Background information on the structure of this specification template	9	
A	A.1.1 Selecting "directionally correct" terminology	9	
A	A.1.2 Logical sequence of parameters in Table 1	9	
A	A.1.3 Performance parameters hierarchical structure	10	
A.2	2 Additional information about reference measurement bandwidth	10	
Bibliog	graphy	12	

 Table 1 – Optical channel monitor specification template
 7

IEC 62343-3-2:2016 © IEC 2016

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## DYNAMIC MODULES -

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

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

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.

- 4 -

## IEC 62343-3-2:2016 © IEC 2016

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

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

IEC 62343-3-2:2016 © IEC 2016

## 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.

- 6 -

## 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

koniec náhľadu – text ďalej pokračuje v platenej verzii STN