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Standards

Irish Standard  
I.S. EN 62343-3-1:2016

# Dynamic modules - Part 3-1: Performance specification templates - Dynamic channel equalizers

**I.S. EN 62343-3-1:2016**

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

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## National Foreword

I.S. EN 62343-3-1:2016 is the adopted Irish version of the European Document EN 62343-3-1:2016, Dynamic modules - Part 3-1: Performance specification templates - Dynamic channel equalizers

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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EUROPEAN STANDARD

**EN 62343-3-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2016

ICS 33.180.20

Supersedes EN 62343-3-1:2010

English Version

**Dynamic modules - Part 3-1: Performance specification  
templates - Dynamic channel equalizers  
(IEC 62343-3-1:2016)**

Modules dynamiques - Partie 3-1: Modèles de spécification  
de performance - Egaliseurs de canaux de transmission  
dynamiques  
(IEC 62343-3-1:2016)

Dynamische Module - Teil 3-1: Vorlagen für  
Leistungsspezifikationen - Dynamische Kanal-Equalizer  
(IEC 62343-3-1:2016)

This European Standard was approved by CENELEC on 2016-05-26. 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.

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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**

**EN 62343-3-1:2016**

**European foreword**

The text of document 86C/1370/FDIS, future edition 2 of IEC 62343-3-1, 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 62343-3-1:2016.

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) 2017-02-26
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-05-26

This document supersedes EN 62343-3-1:2010.

It constitutes a technical revision and includes the following significant technical change with respect to the previous edition:

– modification of terms and definitions and references.

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.

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In the official version, for Bibliography, the following note has to be added for the standard indicated :

IEC 61300 (series)	NOTE	Harmonized in EN 61300 (series).
IEC 61753-1	NOTE	Harmonized as EN 61753-1.

## 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: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61300-2-14	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-14: Tests - High optical power	EN 61300-2-14	-
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	EN 61300-3-2	-
IEC 61300-3-6	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 3-6: Examinations and measurements - Return loss	EN 61300-3-6	-
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	EN 61300-3-29	-
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	EN 61300-3-32	-
IEC 61300-3-38	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-38: Examinations and measurements - Group delay, chromatic dispersion and phase ripple	EN 61300-3-38	-
IEC 61753-021-2	-	Fibre optic interconnecting devices and passive components performance standard -- Part 021-2: Grade C/3 single-mode fibre optic connectors for category C - Controlled environment	EN 61753-021-2	-
IEC 62343	-	Dynamic modules - General and guidance	EN 62343	-
ITU-T Recommendation G.694.1	-	Spectral grids for WDM applications: DWDM frequency grid	-	-

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**IEC 62343-3-1**

Edition 2.0 2016-04

# **INTERNATIONAL STANDARD**

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**Dynamic modules –  
Part 3-1: Performance specification templates – Dynamic channel equalizers**





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**IEC 62343-3-1**

Edition 2.0 2016-04

# **INTERNATIONAL STANDARD**

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**Dynamic modules –  
Part 3-1: Performance specification templates – Dynamic channel equalizers**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **DYNAMIC MODULES –**

### **Part 3-1: Performance specification templates – Dynamic channel equalizers**

#### 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.
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International Standard IEC 62343-3-1 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition published in 2010. This edition constitutes a technical revision.

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

- modification of terms and definitions and references.

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

FDIS	Report on voting
86C/1370/FDIS	86C/1372/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 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,
- withdrawn,
- replaced by a revised edition, or
- amended.

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

## INTRODUCTION

A dynamic channel equalizer (DCE) is used to compensate and equalize the variations in channel power spectrum as the optical channels propagate through DWDM networks. A typical DCE module is an electrically controlled two port device, which controls the time varying power levels of multichannel input signals such that, at the output channel, powers are nominally equalized.

## DYNAMIC MODULES –

### Part 3-1: Performance specification templates – Dynamic channel equalizers

#### 1 Scope

This part of IEC 62343 provides a performance specification template for the dynamic channel equalizer (DCE). The object of this performance specification template is to provide a framework for the preparation of detail specifications on the product or performance of dynamic channel equalizers.

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

Technical information regarding dynamic channel equalizers and their applications in DWDM systems is described in IEC TR 62343-6-1.

#### 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 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: Examinations and measurements – Polarization dependent loss in a single-mode fibre optic device*

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 61300-3-29, *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 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*

IEC 61300-3-38, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-38: Examinations and measurements – Group delay, chromatic dispersion and phase ripple*

IEC 61753-021-2, *Fibre optic interconnecting devices and passive components performance standard – Part 021-2: Grade C/3 single-mode fibre optic connectors for category C – Controlled environment*

IEC 62343, *Dynamic modules – General and guidance*



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