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Standards

Irish Standard  
I.S. EN 62343-2:2014

# Dynamic modules - Part 2: Reliability qualification

**I.S. EN 62343-2:2014**

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

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## Dynamic modules - Part 2: Reliability qualification (IEC 62343-2:2014)

Modules dynamiques - Partie 2: Qualification de fiabilité  
(CEI 62343-2:2014)

Dynamische Module - Teil 2: Beurteilung der  
Zuverlässigkeit  
(IEC 62343-2:2014)

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## Foreword

The text of document 86C/1185/CDV, future edition 2 of IEC 62343-2, 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 62343-2:2014.

The following dates are fixed:

- latest date by which the document has to be (dop) 2015-06-01  
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standard or by endorsement
- latest date by which the national (dow) 2017-09-01  
standards conflicting with the  
document have to be withdrawn

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61000-4-2	NOTE	Harmonized as EN 61000-4-2.
IEC 61000-4-3	NOTE	Harmonized as EN 61000-4-3.
IEC 61000-4-4	NOTE	Harmonized as EN 61000-4-4.
IEC 61000-4-5	NOTE	Harmonized as EN 61000-4-5.
IEC 61000-4-6	NOTE	Harmonized as EN 61000-4-6.
IEC 61291-5-2	NOTE	Harmonized as EN 61291-5-2.
IEC 61300-2-5	NOTE	Harmonized as EN 61300-2-5.
IEC 61300-2-9	NOTE	Harmonized as EN 61300-2-9.
IEC 61300-2-42	NOTE	Harmonized as EN 61300-2-42.
IEC 61300-2-44	NOTE	Harmonized as EN 61300-2-44.
IEC 61753-1	NOTE	Harmonized as EN 61753-1.
CISPR 22	NOTE	Harmonized as EN 55022.

## 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 61300-2-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-1: Tests - Vibration (sinusoidal)	EN 61300-2-1	-
IEC 61300-2-4	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-4: Tests - Fibre/cable retention	EN 61300-2-4	-
IEC 61300-2-12	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-12: Tests - Impact	EN 61300-2-12	-
IEC 62005-9-1	-	Fibre optic interconnecting devices and passive components - Reliability -- Part 9-1: Qualification of passive optical components	EN 62005-9-1 <sup>1)</sup>	-
IEC 62005-9-2	-	Reliability of fibre optic interconnecting devices and passive optical components -- Part 9-2: Reliability qualification for single fibre optic connector sets - single mode	-	-
IEC 62572 series	-	Fibre optic active components and devices - Reliability standards	EN 62572 series	-
ISO 9000	-	Quality management systems - Fundamentals and vocabulary	-	-

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<sup>1)</sup> At draft stage.

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# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**

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**Dynamic modules –  
Part 2: Reliability qualification**

**Modules dynamiques –  
Partie 2: Qualification de fiabilité**

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**IEC 62343-2**

Edition 2.0 2014-07

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Dynamic modules –  
Part 2: Reliability qualification**

**Modules dynamiques –  
Partie 2: Qualification de fiabilité**

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## DYNAMIC MODULES –

## Part 2: Reliability qualification

## FOREWORD

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International Standard IEC 62343-2 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 2011 and constitutes a technical revision. The main change with respect to the previous edition is the addition of Annex A (informative), Reliability test items and their conditions.

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

CDV	Report on voting
86C/1185/CDV	86C/1248/RVC

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 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.

## DYNAMIC MODULES –

### Part 2: Reliability qualification

#### 1 Scope

This part of IEC 62343 applies to dynamic modules and devices (DMs) which are commercially available. Examples are tuneable chromatic dispersion compensators, wavelength selective switches and optical channel monitors.

Optical amplifiers are not included in this list, but are treated in IEC 61291-5-2.

For reliability qualification purposes, some information about the internal components, parts and interconnections is needed; these internal parts are treated as black boxes. This standard gives requirements for the evaluation of DM reliability by combining the reliability of such internal black boxes.

The objectives of this standard are the following:

- to specify the requirements for the reliability qualification of DMs;
- to give the minimum list of reliability qualification tests, requirements on failure criteria during testing and on reliability predictions, and give the relevant normative references.

#### 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 61300-2-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-1: Tests – Vibration (sinusoidal)*

IEC 61300-2-4, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-4: Tests – Fibre/cable retention*

IEC 61300-2-12, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-12: Tests – Impact*

IEC 62005-9-1, *Fibre optic interconnecting devices and passive components – Reliability – Part 9-1: Qualification of passive optical components*<sup>1</sup>

IEC 62005-9-2, *Reliability of fibre optic interconnecting devices and passive optical components – Part 9-2: Reliability qualification for single fibre optic connector sets – Single mode*

IEC 62572 (all parts), *Fibre optic active components and devices – Reliability standards*

ISO 9000: *Quality management systems – Fundamentals and vocabulary*

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