

Dynamic modules - Part 2: Reliability qualification

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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**Dynamic modules -
Part 2: Reliability qualification
(IEC 62343-2:2011)**

Modules dynamiques
Partie 2: Qualification de fiabilité
(CEI 62343-2:2011)

Dynamische Module -
Teil 2: Beurteilung der Zuverlässigkeit
(IEC 62343-2:2011)

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CENELEC

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

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Foreword

The text of document 86C/960/CDV, future edition 1 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 was approved by CENELEC as EN 62343-2 on 2011-04-18.

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

The following dates were fixed:

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|--|-------|------------|
| – latest date by which the EN has to be implemented at national level on publication of an identical national standard or by endorsement | (dop) | 2012-01-18 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2014-04-18 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62343-2:2011 was approved by CENELEC as a European Standard without any modification.

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

IEC 61751	NOTE	Harmonized as EN 61751.
IEC 61291-5-2	NOTE	Harmonized as EN 61291-5-2.
ISO 9001:2000 ¹	NOTE	Harmonized as EN ISO 9001:2000.

¹ ISO 9001:2000 is superseded by ISO 9001:2008, which is harmonized as EN ISO 9001:2008.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<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 62005-9-2	-	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	-	-
ISO 9000	-	Quality management systems - Fundamentals and vocabulary	EN ISO 9000	-

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INTRODUCTION

This part of IEC 62243 is dedicated to the subject of reliability qualification of dynamic modules. Since the technology is quite new and still evolving, amendments and new editions to this document can be expected at a shorter interval.

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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, reconfigurable optical cross-connects, and dynamic channel equalizers. (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 part of IEC 62343 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 are indispensable for the application of this document. 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 61300-3-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-1: Examinations and measurements – Visual examination*

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 62372 (all parts), *Fibre optic active components and devices – Reliability standards*

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