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Standards

Irish Standard
I.S. EN 62343-5-1:2015

Dynamic modules - Part 5-1: Test methods - Dynamic gain tilt equalizer - Gain tilt settling time measurement

I.S. EN 62343-5-1:2015

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This document is based on:

EN 62343-5-1:2015

Published:

2015-03-13

This document was published under the authority of the NSAI and comes into effect on:

2015-03-31

ICS number:

33.180.01

33.180.99

NOTE: If blank see CEN/CENELEC cover page

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EUROPEAN STANDARD

EN 62343-5-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2015

ICS 33.180.99; 33.180.01

Supersedes EN 62343-5-1:2009

English Version

**Dynamic modules - Part 5-1: Test methods - Dynamic gain tilt
equalizer - Gain tilt settling time measurement
(IEC 62343-5-1:2014)**

To be completed
(IEC 62343-5-1:2014)

Dynamische Module - Teil 5-1: Prüfverfahren - Equalizer
zur Kompensation einer dynamischen Verstärkerkennlinie -
Messung der Einstellzeit der Verstärkerschräglage
(IEC 62343-5-1:2014)

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Europäisches Komitee für Elektrotechnische Normung

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

Foreword

The text of document 86C/1249/CDV, future edition 2 of IEC 62343-5-1, 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 62343-5-1:2015.

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) 2015-09-30
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-12-30

This document supersedes EN 62343-5-1:2009.

This edition of EN includes the following significant technical changes with respect to the previous edition:

- a) change in the title;
- b) changes in performance parameter names

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

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62343	-	Dynamic modules - General and guidance	EN 62343	-
IEC 62343-1-3	-	Dynamic modules -- Part 1-3: Performance standards - Dynamic gain tilt equalizer (non-connectorized)	EN 62343-1-3	-

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IEC 62343-5-1

Edition 2.0 2014-11

INTERNATIONAL STANDARD



**Dynamic modules –
Part 5-1 Test methods – Dynamic gain tilt equalizer – Gain tilt settling time
measurement**





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IEC 62343-5-1

Edition 2.0 2014-11

INTERNATIONAL STANDARD



**Dynamic modules –
Part 5-1 Test methods – Dynamic gain tilt equalizer – Gain tilt settling time
measurement**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

PRICE CODE

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ICS 33.180.01; 33.180.99

ISBN 978-2-8322-1959-1

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

DYNAMIC MODULES –

Part 5-1 Test methods – Dynamic gain tilt equalizer – Gain tilt settling time measurement

FOREWORD

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International Standard IEC 62343-5-1 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 2009. It constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:

- a) change in the title
- b) changes in performance parameter names.

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

CDV	Report on voting
86C/1249/CDV	86C/1277/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

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- replaced by a revised edition, or
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DYNAMIC MODULES –

Part 5-1 Test methods – Dynamic gain tilt equalizer – Gain tilt settling time measurement

1 Scope

This part of IEC 62343 contains the measurement method of gain tilt settling time for a dynamic gain tilt equalizer (DGTE) to change its gain tilt from an arbitrary initial value to a desired target value.

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*

IEC 62343-1-3, *Dynamic modules – Part 1-3: Performance standards – Dynamic gain tilt equalizer (non-connectorized)*

3 Terms, definitions, abbreviations and response waveforms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62343 and IEC 62343-1-3 and the following apply.

3.1.1

T_c

convergence time

time to converge from the first hit at the target $\pm Y\%$ to the stay within the deviation $\pm Y\%$ in the optical power from the output port of DGTE at pre-determined wavelength

3.1.2

T_l

latency time

<direct and analogue control types> time between the application of control signal and the change in output optical power by $\pm X\%$ of the initial power of DGTE at pre-determined wavelength

3.1.3

T_p

processing time

<digital control type> time between the application of control command and the change in output optical power by $\pm X\%$ of the initial power of DGTE at pre-determined wavelength

3.1.4

gain tilt settling time

$(T_l \text{ or } T_p) + T_r + T_c$

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