Semiconductor optoelectronic devices for fibre optic system applications - Part 1: Specification template for essential ratings and characteristics

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NATIONAL FOREWORD

See Eesti standard EVS-EN 62007-1:2015 sisaldab Euroopa standardi EN 62007-1:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 62007-1:2015 consists of the English text of the European standard EN 62007-1:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 26.06.2015.	Date of Availability of the European standard is 26.06.2015.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 31.080.01, 31.260, 33.180.01

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62007-1

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ICS 31.080.01; 31.260; 33.180.01

Supersedes EN 62007-1:2009

English Version

Semiconductor optoelectronic devices for fibre optic system applications - Part 1: Specification template for essential ratings and characteristics (IEC 62007-1:2015)

Dispositifs optoélectroniques à semiconducteurs pour application dans les systèmes à fibres optiques - Partie 1: Modèle de spécification relatif aux valeurs et caractéristiques essentielles (IEC 62007-1:2015)

Optoelektronische Halbleiterbauelemente für Anwendungen in Lichtwellenleitersystemen - Teil 1: Vorlage für Leistungsspezifikationen für wesentliche Grenz- und Kennwerte (IEC 62007-1:2015)

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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.

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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/1256/CDV, future edition 3 of IEC 62007-1, 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 62007-1:2015.

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)	2016-02-04
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2018-05-04

This document supersedes EN 62007-1:2009.

EN 62007-1:2015 includes the following significant technical changes with respect to EN 62007-1:2009:

1) The definitions of some symbols and terms are revised in order to harmonize them with those in other SR 86C documents;
2) A clause on APD-TIA has been added.

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 62007-1:2015 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: www.cenelec.eu

Publication	Year	Title	EN/HD	Year
IEC 60825	Series	Safety of laser products	EN 60825	Series
IEC 60747-5-1	-	Discrete semiconductor devices and integrated circuits - Part 5-1: Optoelectronic devices - General	EN 60747-5-1	-

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SEMICONDUCTOR OPTOELECTRONIC DEVICES FOR FIBRE OPTIC SYSTEM APPLICATIONS –

Part 1: Specification template for essential ratings and characteristics

1 Scope

This part of IEC 62007 is a specification template for essential ratings and characteristics of the following categories of semiconductor optoelectronic devices to be used in the field of fibre optic systems and subsystems:

– semiconductor photoemitters;

– semiconductor photoelectric detectors;

– monolithic or hybrid integrated optoelectronic devices and their modules.

This part of IEC 62007 provides a frame for the preparation of detail specifications for the essential ratings and characteristics.

In using this part of IEC 62007, detail specification writers add but do not delete specification parameters and/or groups of specification parameters for particular applications.

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 60825 (all parts), *Safety of laser products*

IEC 60747-5-1, *Discrete semiconductor devices and integrated circuits – Part 5-1: Optoelectronic devices – General*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms and definitions concerning physical concepts, types of devices, general terms, and ratings and characteristics given in IEC 60747-5-1 and the following apply.

3.1.1
PIN photodiode
photodiode with a large intrinsic region sandwiched between P- and N-doped semiconducting regions used for the detection of optical radiation

[SOURCE: IEC 60050-731-06-29, modified — The note has been deleted.]