

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Fibre optic communication subsystems –  
Part 1: Generic specification**

**Sous-systèmes de télécommunications fibre optiques –  
Partie 1: Spécification générique**





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**FIBRE OPTIC COMMUNICATION SUBSYSTEMS –****Part 1: Generic specification**

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International Standard IEC 61281-1 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 1999. This edition constitutes a technical revision.

This edition includes the following significant technical change with respect to the previous edition: addition of new definitions.

The text of this International Standard is based on the following documents:

CDV	Report on voting
86C/1408/CDV	86C/1468/RVC

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61281-1 series, published under the general title *Fibre optic communication subsystems*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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# FIBRE OPTIC COMMUNICATION SUBSYSTEMS –

## Part 1: Generic specification

### 1 Scope

This part of IEC 61281 is a generic specification for fibre optic communication subsystems (FOCSSs).

The parameters defined herein form a specifiable minimum set of specifications that are common to all fibre optic subsystems. Additional parameters can be used depending on the particular application and technology. Those additional parameters will be specified in the relevant documents, as appropriate.

Each specified parameter is measured using one of the test procedures. The use of these parameters for system design is given in design guides.

### 2 Normative references

There are no normative references in this document.

### 3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

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- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

NOTE Within a definition, terms defined elsewhere in Clause 3 are in italics.

#### 3.1

##### **active optical device**

optical device, other than an optical dynamic device, exhibiting one or more of the following functions:

- generation or detection of optical power;
- conversion of an electronic signal to a corresponding optical one or vice versa;
- optical amplification or optical regeneration (2R or 3R) of an optical signal;
- direct conversion of the optical frequency of an optical signal

Note 1 to entry: Active optical devices may comprise passive optical elements.

[SOURCE: IEC TS 62538:2008, 2.1.2, modified – The term "optical active device" has been replaced by "active optical device".]