
**Integrated optics — Interfaces —
Parameters relevant to coupling properties**

*Optique intégrée — Interfaces — Paramètres caractérisant les propriétés
de couplage*



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Printed in Switzerland

Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 14881 was prepared by Technical Committee ISO/TC 172, *Optics and optical instruments*, Subcommittee SC 9, *Electro-optical systems*.

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Integrated optics — Interfaces — Parameters relevant to coupling properties

1 Scope

This International Standard defines the relevant properties for coupling light into and out of integrated optical chips (IOC) and chips with optoelectronic integrated circuits (OEIC). This International Standard is limited to butt coupling via the waveguide endfaces. The definitions provide the basis for specifying the elements to be coupled (e. g. fibres, integrated optical chips) related to coupling properties.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 4288:1996, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture*.

ISO 11807-1:—¹⁾, *Integrated optics — Vocabulary — Part 1: Basic terms and symbols*.

ISO 11807-2, *Integrated optics — Vocabulary — Part 2: Terms used in classification*.

IEC 60793-1-2:1995, *Optical fibres — Part 1: Generic specification — Section 2: Measuring methods for dimensions*.

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 11807-1:— and ISO 11807-2 and the following apply.

3.1

anti-reflective coating of endfaces

thin surface coating designed to reduce the Fresnel loss

3.2

alignment structure

precise mechanical structure to enable coupling of optical and electro-optical elements without the need for adjustment

EXAMPLE Elements coupled may include optical fibres, fibre arrays, detectors, lasers, LEDs, integrated optical chips.

3.3

array block

mechanical alignment structure of micrometre or submicrometre precision for the reception of optical fibres

1) To be published.