



# SLOVENSKI STANDARD SIST EN ISO 11807-1:2021

01-december-2021

Nadomešča:

SIST EN ISO 11807-1:2005

---

**Integrirana optika - Slovar - 1. del: Osnovni strokovni izrazi in simboli optičnih valovodov (ISO 11807-1:2021)**

Integrated optics - Vocabulary - Part 1: Optical waveguide basic terms and symbols (ISO 11807-1:2021)

Integrierte Optik - Begriffe - Teil 1: Grundbegriffe und Formelzeichen optischer Wellenleiter (ISO 11807-1:2021)

Optique intégrée - Vocabulaire - Partie 1: Termes fondamentaux et symboles des guides d'onde optique (ISO 11807-1:2021)

**Ta slovenski standard je istoveten z: EN ISO 11807-1:2021**

---

**ICS:**

01.040.31	Elektronika (Slovarji)	Electronics (Vocabularies)
31.260	Optoelektronika, laserska oprema	Optoelectronics. Laser equipment

**SIST EN ISO 11807-1:2021**

**en**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 11807-1:2021](#)

<https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021>

EUROPEAN STANDARD

EN ISO 11807-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2021

ICS 01.040.31; 31.260

Supersedes EN ISO 11807-1:2005

English Version

## Integrated optics - Vocabulary - Part 1: Optical waveguide basic terms and symbols (ISO 11807-1:2021)

Optique intégrée - Vocabulaire - Partie 1: Termes  
fondamentaux et symboles des guides d'onde optique  
(ISO 11807-1:2021)

Integrierte Optik - Begriffe - Teil 1: Grundbegriffe und  
Formelzeichen optischer Wellenleiter (ISO 11807-  
1:2021)

This European Standard was approved by CEN on 9 October 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. 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 CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	3

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 11807-1:2021](https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021)  
<https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021>

## European foreword

This document (EN ISO 11807-1:2021) has been prepared by Technical Committee ISO/TC 172 "Optics and photonics" in collaboration with Technical Committee CEN/TC 123 "Lasers and photonics" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2022, and conflicting national standards shall be withdrawn at the latest by April 2022.

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

This document supersedes EN ISO 11807-1:2005.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Endorsement notice

<https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88->

[e6ed88c5618c/sist-en-iso-11807-1-2021](https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021)

The text of ISO 11807-1:2021 has been approved by CEN as EN ISO 11807-1:2021 without any modification.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 11807-1:2021](#)

<https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021>

INTERNATIONAL  
STANDARD

ISO  
11807-1

Second edition  
2021-10

---

---

**Integrated optics — Vocabulary —**

Part 1:  
**Optical waveguide basic terms and  
symbols**

*Optique intégrée — Vocabulaire —*

*Partie 1: Termes fondamentaux et symboles des guides d'onde optique*  
**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 11807-1:2021](https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021)

<https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021>



Reference number  
ISO 11807-1:2021(E)

© ISO 2021

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 11807-1:2021](https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021)

<https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021>



### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland



<b>Contents</b>		Page
<b>Foreword</b> .....		<b>iv</b>
<b>Introduction</b> .....		<b>v</b>
<b>1</b>	<b>Scope</b> .....	<b>1</b>
<b>2</b>	<b>Normative references</b> .....	<b>1</b>
<b>3</b>	<b>Terms and definitions</b> .....	<b>1</b>
3.1	General.....	1
3.2	Waveguide structures.....	2
3.3	Modes in integrated optical waveguides.....	2
3.4	Refractive index distribution in integrated optical waveguides.....	4
3.5	Properties of integrated optical waveguides.....	8
3.6	Loss or attenuation in integrated optical waveguides.....	8
<b>Annex A (informative) Coordinate system</b> .....		<b>12</b>
<b>Annex B (informative) Symbols and units</b> .....		<b>13</b>
<b>Bibliography</b> .....		<b>14</b>

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 11807-1:2021](https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021)

<https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021>

## ISO 11807-1:2021(E)

### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html). (standards.iteh.ai)

This document was prepared by Technical Committee ISO/TC 172 *Optics and photonics*, Subcommittee SC 9, *Laser and electro optical systems*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 123, *Lasers and photonics*, in accordance with the agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 11807-1:2001), which has been technically revised. The main changes compared to the previous edition are as follows:

- Terminologies that have not been frequently used over the last 5 to 10 years are revised to those matching to current trends.
- In the revision process, terminologies and definitions are compared to similar terminology definitions in IEC and harmonized.

A list of all parts of ISO 11807 can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

The aim of this document is to clarify the terms of the field of “integrated optics” and to define a unified vocabulary. It is expected that this document will be revised periodically to adopt the requirements of customers and suppliers of integrated optical products. At a later stage, it is planned to add definitions from other International Standards which deal with integrated optics.

Some of the definitions are closely related to definitions given in IEC 60050-731. Wherever this can lead to misunderstanding, integrated optics or integrated optical waveguide should be used together with the defined term.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 11807-1:2021](https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021)

<https://standards.iteh.ai/catalog/standards/sist/a42406b9-fa6f-4076-ab88-e6ed88c5618c/sist-en-iso-11807-1-2021>