



**NSAI**  
Standards

Irish Standard  
I.S. EN IEC 61760-2:2021

Surface mounting technology - Part 2:  
Transportation and storage conditions of  
surface mounting devices (SMD) -  
Application guide

**I.S. EN IEC 61760-2:2021**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN IEC 61760-2:2021 is the adopted Irish version of the European Document EN IEC 61760-2:2021, Surface mounting technology - Part 2: Transportation and storage conditions of surface mounting devices (SMD) - Application guide

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EUROPEAN STANDARD

**EN IEC 61760-2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2021

ICS 31.240

Supersedes EN 61760-2:2007 and all of its amendments  
and corrigenda (if any)

English Version

**Surface mounting technology - Part 2: Transportation and  
storage conditions of surface mounting devices (SMD) -  
Application guide  
(IEC 61760-2:2021)**

Technique du montage en surface - Partie 2: Conditions de  
transport et de stockage des composants pour montage en  
surface (CMS) - Guide d'application  
(IEC 61760-2:2021)

Oberflächenmontagetechnik - Teil 2: Transport- und  
Lagerungsbedingungen von oberflächenmontierbaren  
Bauelementen (SMD) - Anwendungsleitfaden  
(IEC 61760-2:2021)

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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.

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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

**EN IEC 61760-2:2021 (E)****European foreword**

The text of document 91/1666/CDV, future edition 3 of IEC 61760-2, prepared by IEC/TC 91 “Electronics assembly technology” was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61760-2:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-05-20 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2024-08-20 document have to be withdrawn

This document supersedes EN 61760-2:2007 and all of its amendments and corrigenda (if any).

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The text of the International Standard IEC 61760-2:2021 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60286-3	NOTE Harmonized as EN IEC 60286-3
IEC 60286-4	NOTE Harmonized as EN 60286-4
IEC 60286-5	NOTE Harmonized as EN IEC 60286-5
IEC 60286-6	NOTE Harmonized as EN 60286-6
IEC 60749 (series)	NOTE Harmonized as EN 60749 (series)
IEC 60749-20-1:2019	NOTE Harmonized as EN IEC 60749-20-1:— <sup>1</sup> (not modified)
IEC 61340-5-1	NOTE Harmonized as EN 61340-5-1
IEC 61760-4:2015	NOTE Harmonized as EN 61760-4:2015 (not modified)
IEC 62435 (series)	NOTE Harmonized as EN IEC 62435 (series)

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<sup>1</sup> To be published. Stage at the time of publication: prEN IEC 60749-20-1:2019.

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60721-3-1	2018	Classification of environmental conditions -EN IEC 60721-3-1 Part 3–1: Classification of groups of environmental parameters and their severities - Storage	-EN IEC 60721-3-1	2018
IEC 60721-3-2	2018	Classification of environmental conditions -EN IEC 60721-3-2 Part 3–2: Classification of groups of environmental parameters and their severities - Transportation and handling	-EN IEC 60721-3-2	2018

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**IEC 61760-2**

Edition 3.0 2021-07

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**



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**Surface mounting technology –  
Part 2: Transportation and storage conditions of surface mounting devices  
(SMD) – Application guide**

**Technique du montage en surface –  
Partie 2: Conditions de transport et de stockage des composants pour montage  
en surface (CMS) – Guide d'application**





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**IEC 61760-2**

Edition 3.0 2021-07

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**



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**Surface mounting technology –  
Part 2: Transportation and storage conditions of surface mounting devices  
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**Technique du montage en surface –  
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en surface (CMS) – Guide d'application**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SURFACE MOUNTING TECHNOLOGY –****Part 2: Transportation and storage conditions  
of surface mounting devices (SMD) –  
Application guide**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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The text of this International Standard is based on the following documents:

Draft	Report on voting
91/1666/CDV	91/1708/RVC

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available

at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

Cross-references for references from this edition 3 to the previous edition 2 of this document are listed in Annex X of this document.

A list of all parts in the IEC 61760 series, published under the general title *Surface mounting technology*, can be found on the IEC website.

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## **SURFACE MOUNTING TECHNOLOGY –**

### **Part 2: Transportation and storage conditions of surface mounting devices (SMD) – Application guide**

#### **1 Scope**

This International Standard specifies the transportation and storage conditions for surface mounting devices (SMDs) that are fulfilled in order to enable trouble-free processing of surface mounting devices, both active and passive. (Conditions for printed boards are not taken into consideration.)

The object of this document is to ensure that users of SMDs receive and store products that can be further processed (e.g. positioned, soldered) without prejudice to quality and reliability. Improper transportation and storage of SMDs can cause deterioration and result in assembly problems such as poor solderability, delamination and "popcorning".

#### **2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60721-3-1:2018, *Classification of environmental conditions – Part 3-1: Classification of groups of environmental parameters and their severities – Storage*

IEC 60721-3-2:2018, *Classification of environmental conditions – Part 3-2: Classification of groups of environmental parameters and their severities – Transportation and handling*

#### **3 Terms and definitions**

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

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

No terms and definitions are listed in this document.

#### **4 General conditions**

Surface mounting devices shall be packed in such a way that products are protected during transportation and storage without loss of their properties arising from mechanical, environmental and electrical influences. Packing requirements as defined in various IEC publications, such as IEC 60286-3, IEC 60286-4, IEC 60286-5, IEC 60286-6 and IEC TR 61340-5-5 can contribute to the protection of components during transportation and storage.

If dry packing is specified and used, the IEC publications IEC 61760-4, IEC 60749-20-1 and IPC/JEDEC J-STD-033 should be consulted.

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