
Tehnologija površinske montaže - 4. del: Razvrščanje, pakiranje, etiketiranje in ravnanje z napravami, občutljivimi na vlago

Surface mounting technology - Part 4: Classification, packaging, labelling and handling of moisture sensitive devices

Oberflächenmontagetechnik - Teil 4: Genormtes Verfahren zur Klassifikation, Verpackung, Kennzeichnung und Handhabung feuchteempfindlicher Bauteile

Technique du montage en surface (SMT) - Partie 4: Classification, emballage, étiquetage et manipulation des dispositifs sensibles à l'humidité

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Ta slovenski standard je istoveten z: EN 61760-4:2015/A1:2018

ICS:

31.020	Elektronske komponente na splošno	Electronic components in general
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SIST EN 61760-4:2015/A1:2018 **en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61760-4:2015/A1

May 2018

ICS 31.190

English Version

**Surface mounting technology - Part 4: Classification, packaging,
labelling and handling of moisture sensitive devices
(IEC 61760-4:2015/A1:2018)**

Technique du montage en surface (SMT) - Partie 4:
Classification, emballage, étiquetage et manipulation des
dispositifs sensibles à l'humidité
(IEC 61760-4:2015/A1:2018)

Oberflächenmontagetechnik - Teil 4: Klassifikation,
Verpackung, Kennzeichnung und Handhabung
feuchteempfindlicher Bauteile
(IEC 61760-4:2015/A1:2018)

This amendment A1 modifies the European Standard EN 61760-4:2015; it was approved by CENELEC on 2018-04-17. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 CENELEC member.

This amendment 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

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

EN 61760-4:2015/A1:2018 (E)**European foreword**

The text of document 91/1419/CDV, future edition 1 of IEC 61760-4:2015/A1, prepared by IEC/TC 91 "Electronics assembly technology" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61760-4:2015/A1:2018.

The following dates are fixed:

- latest date by which the document has to be (dop) 2019-01-17
implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2021-04-17
standards conflicting with the
document have to be withdrawn

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

Endorsement notice

The text of the International Standard IEC 61760-4:2015/A1:2018 was approved by CENELEC as a European Standard without any modification.

Replace the Bibliography of EN 61760-4:2015 by the following:

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

IEC 60068-2-58:2015	NOTE	Harmonized as EN 60068-2-58:2015 (not modified).
IEC 60068-2-78	NOTE	Harmonized as EN 60068-2-78.
IEC 60749-20-1	NOTE	Harmonized as EN 60749-20-1.
ISO 62	NOTE	Harmonized as EN ISO 62.

Replace Annex ZA of EN 61760-4:2015 by the following:

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-1	-	Environmental testing -- Part 1: General and guidance	EN 60068-1	-
IEC 60749-20	-	Semiconductor devices - Mechanical and climatic test methods -- Part 20: Resistance of plastic encapsulated SMDs to the combined effect of moisture and soldering heat	EN 60749-20	-
IEC 61340-5-1	-	Electrostatics - Part 5-1: Protection of electronic devices from electrostatic phenomena - General requirements	EN 61340-5-1	-
IEC 61760-2	-	Surface mounting technology -- Part 2: Transportation and storage conditions of surface mounting devices (SMD) - Application guide	EN 61760-2	-
IPC/JEDEC J-STD-020E	2015	Moisture/Reflow Sensitivity Classification for Nonhermetic Solid State Surface Mount Devices	-	-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

**Surface mounting technology –
Part 4: Classification, packaging, labelling and handling of moisture sensitive
devices**

**Technique du montage en surface (SMT) –
Partie 4: Classification, emballage, étiquetage et manipulation des dispositifs
sensibles à l'humidité**

INTERNATIONAL
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FOREWORD

This amendment has been prepared by IEC technical committee 91: Electronics assembly technology.

The text of this amendment is based on the following documents:

CDV	Report on voting
91/1419/CDV	91/1486/RVC

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

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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CONTENTS

Add Subclause 6.4.3

INTRODUCTION

Add the following text as the last paragraph:

It is important to note that moisture sensitivity levels existing in both J-STD 020 and IEC 61760-4 are equivalent.

2 Normative references

Delete the following reference:

IPC/JEDEC J-STD-020D.1, March 2008, Moisture/Reflow Sensitivity Classification for Nonhermetic Solid State Surface Mount Devices

Add the following reference:

6.3 Moisture soak

Table 2 – Moisture soak conditions

In table footnote a, replace J-STD-020D.1 and J-STD-020D.1:2008 with J-STD-020E.

6.4 Temperature load

6.4.2 Classification temperature profile for special devices

Replace the existing paragraph with the following new paragraph:

When the classification temperature profiles of Table 3 and Table 4 are not applicable to a device (e.g. components with high thermal mass and/or thermal sensitivity), the temperature profiles in Table 7 of IEC 60068-2-58:2015 can be used. Other profiles may be specified in the relevant specification according to the agreement between the user and the supplier. For more information, see J-STD-075:2008.

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Add the following new subclause:

6.4.3 Reflow <https://standards.iteh.ai/catalog/standards/sist/4cea8091-2095-47c9-b68d-8811bdf07d2/sist-en-61760-4-2015-a1-2018>

The sample shall be subjected to 3 cycles of the appropriate reflow conditions as defined in Figure 1, Table 3 and Table 4, starting in a time interval between 15 min to 4 h after removal from the temperature/humidity chamber. The recovery period between two successive cycles shall be the time it takes until the temperature of the specimen drops below 50 °C.

If the timing between removal from the temperature/humidity chamber and initial reflow cannot be met, the parts shall be rebaked and resoaked according to 6.2 and 6.3.

All temperatures refer to the centre of the package, measured on the package body surface that is facing upwards during assembly reflow (i.e. live-bug orientation).

For users, T_c shall not exceed the classification temperature in Table 4. For suppliers, T_c shall be equal to or exceed the classification temperature in Table 4.

NOTE 1 The temperature profile defined in Figure 1, Table 3 and Table 4 is the same as in IEC 60068-2-58:2015. Thus, the temperature load used for testing resistance to soldering heat per each individual reflow treatment and moisture sensitivity is the same.

NOTE 2 The temperature profile defined in Figure 1, Table 3 and Table 4 conforms with Figure 5-1 and Table 5-2 of J-STD-020E, which allow wider tolerances of, for example, peak temperature compared to the prescription given in this document.

D.2.3.1 Content of label

Replace, in the first bullet point, "classification" with "sensitivity".