SLOVENSKI STANDARD
SIST EN 62137-4:2015

01-september-2015

Nadomešča:
SIST EN 62137:2005

Tehnologija elektronskega sestavljanja - 4. del: Metode za preskušanje vzdržljivosti kositrnih spojev elementov za površinsko montažo z okrovi z matričnimi priključki v ravnini

Electronics assembly technology - Part 4: Endurance test methods for solder joint of area array type package surface mount devices

Montageverfahren für elektronische Baugruppen - Teil 4: Oberflächenmontierbare Bauteilgehäuse mit Flächenmatrix - (Lebens)dauerprüfungen für Lötverbindungen

Technique d'assemblage des composants électroniques - Partie 4: Méthodes d'essais d'endurance des joints brasés des composants pour montage en surface à boîtiers de type matriciel

Ta slovenski standard je istoveten z: **EN 62137-4:2014**

ICS:

31.190	Sestavljeni elektronski elementi	Electronic component assemblies

SIST EN 62137-4:2015 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62137-4

December 2014

ICS 31.190

English Version

Electronics assembly technology - Part 4: Endurance test methods for solder joint of area array type package surface mount devices (IEC 62137-4:2014)

Technique d'assemblage des composants électroniques - Partie 4: Méthodes d'essais d'endurance des joints brasés des composants pour montage en surface à boîtiers de type matriciel (CEI 62137-4:2014)

Montageverfahren für elektronische Baugruppen - Teil 4: Oberflächenmontierbare Bauteilgehäuse mit Flächenmatrix - (Lebens-)Dauerprüfungen für Lötverbindungen (IEC 62137-4:2014)

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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 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: Avenue Marnix 17, B-1000 Brussels

Foreword

The text of document 91/1188/FDIS, future edition 1 of IEC 62137-4, prepared by IEC/TC 91 "Electronics assembly technology" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62137-4:2014.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2015-08-13
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-11-13

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Endorsement notice

The text of the International Standard IEC 62137-4:2014 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 60068-1:1988+A1:1992	NOTE	Harmonized as EN 60068-1:1994 (not modified).
IEC 60068-2-2	NOTE	Harmonized as EN 60068-2-2.
IEC 60068-2-6	NOTE	Harmonized as EN 60068-2-6.
IEC 60068-2-21:2006	NOTE	Harmonized as EN 60068-2-21:2006 (not modified).
IEC 60068-2-27	NOTE	Harmonized as EN 60068-2-27.
IEC 60068-2-44:1995	NOTE	Harmonized as EN 60068-2-44:1995 (not modified).
IEC 60068-2-58:2004	NOTE	Harmonized as EN 60068-2-58:2004 (not modified).
IEC 60068-2-78:2001	NOTE	Harmonized as EN 60068-2-78:2001[1)] (not modified).
IEC 60749-1:2002	NOTE	Harmonized as EN 60749-1:2003 (not modified).
IEC 60749-20:2008	NOTE	Harmonized as EN 60749-20:2009 (not modified).
IEC 60749-20-1:2009	NOTE	Harmonized as EN 60749-20-1:2009 (not modified).
IEC 61188-5-8	NOTE	Harmonized as EN 61188-5-8.
IEC 61189-3:2007	NOTE	Harmonized as EN 61189-3:2008 (not modified).
IEC 61189-5	NOTE	Harmonized as EN 61189-5.
IEC 61190-1-1	NOTE	Harmonized as EN 61190-1-1.
IEC 61190-1-2	NOTE	Harmonized as EN 61190-1-2.
IEC 61760-1:2006	NOTE	Harmonized as EN 61760-1:2006 (not modified).
IEC 62137-1-3	NOTE	Harmonized as EN 62137-1-3.
IEC 62137-1-4:2009	NOTE	Harmonized as EN 62137-1-4:2009 (not modified).

[1)] Superseded by EN 60068-2-78:2013 (IEC 60068-2-78:2012): DOW = 2015-12-03.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When 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

Publication	Year	Title	EN/HD	Year
IEC 60068-2-14	-	Environmental testing - Part 2-14: Tests - Test N: Change of temperature	EN 60068-2-14	-
IEC 60191-6-2	-	Mechanical standardization of semiconductor devices - Part 6-2: General rules for the preparation of outline drawings of surface mounted semiconductor device packages - Design guide for 1,50 mm, 1,27 mm and 1,00 mm pitch ball and column terminal packages	EN 60191-6-2	-
IEC 60191-6-5	-	Mechanical standardization of semiconductor devices - Part 6-5: General rules for the preparation of outline drawings of surface mounted semiconductor device packages - Design guide for fine-pitch ball grid array (FBGA)	EN 60191-6-5	-
IEC 60194	-	Printed board design, manufacture and assembly - Terms and definitions	EN 60194	-
IEC 61190-1-3	-	Attachment materials for electronic assembly - Part 1-3: Requirements for electronic grade solder alloys and fluxed and non-fluxed solid solders for electronic soldering applications	EN 61190-1-3	-
IEC 61249-2-7	-	Materials for printed boards and other interconnecting structures - Part 2-7: Reinforced base materials, clad and unclad - Epoxide woven E-glass laminated sheet of defined flammability (vertical burning test), copper-clad	EN 61249-2-7	-
IEC 61249-2-8	-	Materials for printed boards and other interconnecting structures - Part 2-8: Reinforced base materials, clad and unclad - Modified brominated epoxide woven fibreglass reinforced laminated sheets of defined flammability (vertical burning test), copper-clad	EN 61249-2-8	-

Publication	Year	Title	EN/HD	Year
IEC 62137-3	2011	Electronics assembly technology - Part 3: Selection guidance of environmental and endurance test methods for solder joints	EN 62137-3	2012

IEC 62137-4

Edition 1.0 2014-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

PRICE CODE
CODE PRIX X

ICS 31.190

ISBN 978-2-8322-1873-0

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRONICS ASSEMBLY TECHNOLOGY –

Part 4: Endurance test methods for solder joint of area array type package surface mount devices

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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International Standard IEC 62137-4 has been prepared by IEC technical committee 91: Electronics assembly technology.

IEC 62137-4 (first edition) cancels and replaces IEC 62137:2004. This edition constitutes a technical revision.

IEC 62137-4 includes the following significant technical changes with respect to IEC 62137:2004:

- test conditions for use of lead-free solder are included;
- test conditions for lead-free solders are added;
- accelerations of the temperature cycling test for solder joints are added.

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

FDIS	Report on voting
91/1188/FDIS	91/1205/RVD

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

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

A list of all parts in the IEC 62137 series, published under the general title *Electronics assembly technology* can be found in the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site 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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