SLOVENSKI STANDARD

SIST EN 62025-2:2005

december 2005

Visokofrekvenčne induktivne komponente – Neelektrične karakteristike in merilne metode – 2. del: Preskusne metode za neelektrične karakteristike (IEC 62025-2:2005)

High frequency inductive components – Non-electrical characteristics and measuring methods – Part 2: Test methods for non-electrical characteristics (IEC 62025-2:2005)

ICS 29.100.10

Referenčna številka
SIST EN 62025-2:2005(en)

EUROPEAN STANDARD **EN 62025-2**

NORME EUROPÉENNE

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English version

High frequency inductive components – Non-electrical characteristics and measuring methods Part 2: Test methods for non-electrical characteristics

(IEC 62025-2:2005)

Composants inductifs à haute fréquence - Caractéristiques non électriques et méthodes de mesure Partie 2: Méthodes d'éssai pour caractéristiques non électriques (CEI 62025-2:2005)

Induktive Hochfrequenzbauelemente - Nichtelektrische Eigenschaften und Messmethoden Teil 2: Messverfahren für nichtelektrische Eigenschaften (IEC 62025-2:2005)

This European Standard was approved by CENELEC on 2005-02-01. CENELEC 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 Central Secretariat or to any CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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Foreword

The text of document 51/797/FDIS, future edition 1 of IEC 62025-2, prepared by IEC TC 51, Magnetic components and ferrite materials, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62025-2 on 2005-02-01.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2005-11-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2008-02-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62025-2:2005 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60068-1	1988	Environmental testing Part 1: General and guidance	EN 60068-1 [1)]	1994
IEC 60068-2-6 + corr. March	1995 1995	Part 2: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	1995
IEC 60068-2-20	1979	Part 2: Tests - Test T: Soldering	HD 323.2.20 S3 [2)]	1988
IEC 60068-2-21	1999	Part 2-21: Tests - Test U: Robustness of terminations and integral mounting devices	EN 60068-2-21	1999
IEC 60068-2-27	1987	Part 2: Tests - Test Ea and guidance: Shock	EN 60068-2-27	1993
IEC 60068-2-45	1980	Part 2: Tests - Test Xa and guidance: Immersion in cleaning solvents	EN 60068-2-45	1992
IEC 60068-2-58	2004	Part 2-58: Tests - Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)	EN 60068-2-58 + corr. December	2004 2004
IEC 60068-2-69	- [3)]	Part 2: Tests - Test Te: Solderability testing of electronic components for surface mount technology by the wetting balance method	EN 60068-2-69	1996 [4)]
IEC 60068-2-77	1999	Part 2-77: Tests - Test 77: Body strength and impact shock	EN 60068-2-77	1999
IEC 61188-5-2	2003	Printed boards and printed board assemblies - Design and use Part 5-2: Attachment (land/joint) considerations - Discrete components	EN 61188-5-2	2003

1) EN 60068-1 includes corrigendum October 1988 + A1:1992 to IEC 60068-1.

2) HD 323.2.20 S3 includes A2:1987 to IEC 60068-2-20.

3) Undated reference.

4) Valid edition at date of issue.

Publication	Year	Title	EN/HD	Year
IEC 61190-1-2	2002	Attachment materials for electronic assembly Part 1-2: Requirements for solder pastes for high-quality interconnections in electronics assembly	EN 61190-1-2	2002
IEC 61190-1-3	2002	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	2002
IEC 62211	2003	Inductive components - Reliability management	EN 62211	2004

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Composants inductifs à haute fréquence – Caractéristiques non électriques et méthodes de mesure –

Partie 2: Méthodes d'essai pour caractéristiques non électriques

High frequency inductive components – Non-electrical characteristics and measuring methods –

Part 2: Test methods for non-electrical characteristics

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch

Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

HIGH FREQUENCY INDUCTIVE COMPONENTS – NON-ELECTRICAL CHARACTERISTICS AND MEASURING METHODS –

Part 2: Test methods for non-electrical characteristics

FOREWORD

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International Standard IEC 62025-2 has been prepared by IEC technical committee 51: Magnetic components and ferrite materials.

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

FDIS	Report on voting
51/797/FDIS	51/808/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.

IEC 62025 consists of the following parts, under the general title *High frequency inductive components – Non-electrical characteristics and measuring methods*

Part 1: Fixed, surface mounted inductors for use in electronic and telecommunication equipment

Part 2: Test methods for non-electrical characteristics

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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.

HIGH FREQUENCY INDUCTIVE COMPONENTS – NON-ELECTRICAL CHARACTERISTICS AND MEASURING METHODS –

Part 2: Test methods for non-electrical characteristics

1 Scope

This part of IEC 62025 specifies a test method for the non-electrical characteristics of the Surface Mounted Device (SMD) inductors to be used for electronic and telecommunication equipment. The object of this part of IEC 62025 is to define methods for measuring mechanical performance only. As the reliability performances and specifications relative to non-electrical performances are defined in IEC 62211, detailed measuring methods for mechanical performance of reliability testing are defined in this part of IEC 62025.

2 Normative references

The following referenced documents are indispensable for the application 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 60068-1:1988, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-6:1995, *Environmental testing – Part 2: Tests – Test Fc : Vibration (sinusoidal)*

IEC 60068-2-20:1979, *Environmental testing – Part 2: Tests – Test T: Soldering*

IEC 60068-2-21:1999, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 60068-2-27:1987, *Environmental testing – Part 2: Tests – Test Ea and guidance: Shock*

IEC 60068-2-45:1980, *Environmental testing – Part 2: Tests – Test XA and guidance: Immersion in cleaning solvents*

IEC 60068-2-58:2004, *Environmental testing – Part 2-58: Tests – Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)*

IEC 60068-2-69, *Environmental testing – Part 2: Tests – Test Te: Solderability testing of electronic components for surface mount technology by the wetting balance method*

IEC 60068-2-77:1999, *Environmental testing – Part 2-77: Tests – Test 77: Body strength and impact shock*

IEC 61188-5-2:2003, *Printed boards and printed board assemblies – Design and use – Part 5-2: Attachment (land/joint) considerations – Discrete components*

IEC 61190-1-2:2002, *Attachment materials for electronic assembly – Part 1-2: Requirements for solder pastes for high-quality interconnections in electronics assembly*

IEC 61190-1-3:2002, *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*

IEC 62211:2003, *Inductive components – Reliability management*

3 Terms and definitions

For the purpose of this part of IEC 62025, the terms and definitions given in the normative references apply.

4 Test conditions

4.1 Standard atmospheric conditions for test

Unless otherwise specified in the detail specification, the tests and measurements shall be carried out under standard atmospheric conditions for test as given in 5.3.1 of IEC 60068-1:

– temperature: 15 °C to 35 °C;
– relative humidity: 25 % to 75 %;
– air pressure: 86 kPa to 106 kPa.

In the event of dispute or where required, the measurements shall be repeated using the referee temperatures (as given in 4.2) and such other conditions as are prescribed in this standard.

In addition, when it is difficult to make measurements in standard atmospheric conditions, unless a doubt arises about the validity of the result, the tests and measurements may be performed in non-standard atmospheric conditions.

4.2 Referee conditions

For referee purposes, one of the standard atmospheric conditions for referee tests taken from 5.2 of IEC 60068-1, shall be selected and shall be as follows:

– temperature: 20 °C ± 2 °C;
– relative humidity: 60 % to 70 %;
– air pressure: 86 kPa to 106 kPa.