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Standards

Irish Standard  
I.S. EN 62878-1-1:2015

# Device embedded substrate - Part 1-1: Generic specification - Test methods

**I.S. EN 62878-1-1:2015**

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*This document is based on:*

EN 62878-1-1:2015

*Published:*

2015-07-10

*This document was published under the authority of the NSAI and comes into effect on:*

2015-07-28

ICS number:

NOTE: If blank see CEN/CENELEC cover page

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EUROPEAN STANDARD

**EN 62878-1-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2015

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ICS 31.180; 31.190

English Version

Device embedded substrate -  
Part 1-1: Generic specification - Test methods  
(IEC 62878-1-1:2015)

Substrat avec appareil(s) intégré(s) -  
Partie 1-1: Spécification générique - Méthodes d'essai  
(IEC 62878-1-1:2015)

Trägermaterial mit eingebetteten Bauteilen -  
Teil 1-1: Fachgrundspezifikation - Prüfverfahren  
(IEC 62878-1-1:2015)

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Comité Européen de Normalisation Electrotechnique  
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**EN 62878-1-1:2015****European foreword**

The text of document 91/1248/FDIS, future edition 1 of IEC 62878-1-1, prepared by IEC/TC 91 "Electronics assembly technology" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62878-1-1:2015.

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) 2016-03-24
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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-1	NOTE	Harmonized as EN 60068-1.
IEC 60068-2-6	NOTE	Harmonized as EN 60068-2-6.
IEC 60068-2-14	NOTE	Harmonized as EN 60068-2-14.
IEC 60068-2-20	NOTE	Harmonized as EN 60068-2-20.
IEC 60068-2-21	NOTE	Harmonized as EN 60068-2-21.
IEC 60068-2-30	NOTE	Harmonized as EN 60068-2-30.
IEC 60068-2-38	NOTE	Harmonized as EN 60068-2-38.
IEC 60068-2-53	NOTE	Harmonized as EN 60068-2-53.
IEC 60068-2-58	NOTE	Harmonized as EN 60068-2-58.
IEC 60068-2-64	NOTE	Harmonized as EN 60068-2-64.
IEC 60068-2-66	NOTE	Harmonized as EN 60068-2-66.
IEC 60068-2-78	NOTE	Harmonized as EN 60068-2-78.
IEC 60068-2-80	NOTE	Harmonized as EN 60068-2-80.
IEC 61189-1	NOTE	Harmonized as EN 61189-1.
IEC 61189-2	NOTE	Harmonized as EN 61189-2.
IEC 61189-11	NOTE	Harmonized as EN 61189-11.
IEC 61190-1-2	NOTE	Harmonized as EN 61190-1-2.
IEC 61190-1-3	NOTE	Harmonized as EN 61190-1-3.
IEC 62137-1-2	NOTE	Harmonized as EN 62137-1-2.
IEC 62137-1-3	NOTE	Harmonized as EN 62137-1-3.
IEC 62421	NOTE	Harmonized as EN 62421.
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ISO 2409	NOTE	Harmonized as EN ISO 2409.
ISO 3611	NOTE	Harmonized as EN ISO 3611.
ISO 4957	NOTE	Harmonized as EN ISO 4957.
ISO 9445-1	NOTE	Harmonized as EN ISO 9445-1.
ISO 9453	NOTE	Harmonized as EN ISO 9453.
ISO 9455 Series	NOTE	Harmonized as EN ISO 9455 Series.
ISO 15184	NOTE	Harmonized as EN ISO 15184.

## 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](http://www.cenelec.eu)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-1	-	Environmental testing - Part 2-1: Tests - Test A: Cold	EN 60068-2-1	-
IEC 60068-2-2	-	Environmental testing - Part 2-2: Tests - Test B: Dry heat	EN 60068-2-2	-
IEC 60194	-	Printed board design, manufacture and assembly - Terms and definitions	EN 60194	-
IEC 61189-3	-	Test methods for electrical materials, printed boards and other interconnection structures and assemblies - Part 3: Test methods for interconnection structures (printed boards)	EN 61189-3	-
IEC/TS 62878-2-4	2015	Device embedded substrate - Part 2-4: Guidelines - Test element groups (TEG)	-	-



**IEC 62878-1-1**

Edition 1.0 2015-05

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**



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**Device embedded substrate –  
Part 1-1: Generic specification – Test methods**

**Substrat avec appareil(s) intégré(s) –  
Partie 1-1: Spécification générique – Méthodes d'essai**



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**IEC 62878-1-1**

Edition 1.0 2015-05

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**



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**Device embedded substrate –  
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Partie 1-1: Spécification générique – Méthodes d'essai**

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ICS 31.180; 31.190

ISBN 978-2-8322-2674-2

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## DEVICE EMBEDDED SUBSTRATE –

## Part 1-1: Generic specification – Test methods

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

FDIS	Report on voting
91/1248/FDIS	91/1260/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.

A list of all parts in the IEC 62878, published under the general title *Device embedded substrate*, can be found on the IEC website.

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

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

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## DEVICE EMBEDDED SUBSTRATE –

### Part 1-1: Generic specification – Test methods

#### 1 Scope

This part of IEC 62878 specifies the test methods of passive and active device embedded substrates. The basic test methods of printed wiring substrate materials and substrates themselves are specified in IEC 61189-3.

This part of IEC 62878 is applicable to device embedded substrates fabricated by use of organic base material, which include for example active or passive devices, discrete components formed in the fabrication process of electronic wiring board, and sheet formed components.

The IEC 62878 series neither applies to the re-distribution layer (RDL) nor to the electronic modules defined as an M-type business model in IEC 62421.

#### 2 Normative references

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.

IEC 60068-2-1, *Environmental testing – Part 2-1: Tests – Test A: Cold*

IEC 60068-2-2, *Environmental testing – Part 2-2: Tests – Test B: Dry heat*

IEC 60194, *Printed board design, manufacture and assembly – Terms and definitions*

IEC 61189-3, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 3: Test methods for interconnection structures (printed boards)*

IEC TS 62878-2-4:2015, *Device embedded substrate – Part 2-4 – Guidelines – Test element groups (TEG)*

#### 3 Terms, definitions and abbreviations

##### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60194 apply.

##### 3.2 Abbreviations

AABUS as agreed between user and supplier

AOI automated optical inspection

LSI large scale integration

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