



NSAI
Standards

Irish Standard
I.S. EN 62047-9:2011

Semiconductor devices - Micro-
electromechanical devices -- Part 9:
Wafer to wafer bonding strength
measurement for MEMS (IEC 62047
-9:2011 (EQV))

I.S. EN 62047-9:2011

Incorporating amendments/corrigenda issued since publication:

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EUROPEAN STANDARD

EN 62047-9

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EUROPÄISCHE NORM

August 2011

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English version

**Semiconductor devices -
Micro-electromechanical devices -
Part 9: Wafer to wafer bonding strength measurement for MEMS
(IEC 62047-9:2011)**

Dispositifs à semiconducteurs -
Dispositifs microélectromécaniques -
Partie 9: Mesure de la résistance de
collage de deux plaquettes pour les
MEMS
(CEI 62047-9:2011)

Halbleiterbauelemente -
Bauelemente der Mikrosystemtechnik -
Teil 9: Prüfverfahren zur Festigkeit von
Full-Wafer-Bondverbindungen in der
Mikrosystemtechnik (MEMS)
(IEC 62047-9:2011)

This European Standard was approved by CENELEC on 2011-08-17. 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.

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CENELEC

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

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Foreword

The text of document 47F/82/FDIS, future edition 1 of IEC 62047-9, prepared by SC 47F, Micro-electromechanical systems, of IEC TC 47, Semiconductor devices, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62047-9 on 2011-08-17.

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

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) 2012-05-17
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2014-08-17

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62047-9:2011 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 62047-2 | NOTE | Harmonized as EN 62047-2. |
| IEC 62047-4 | NOTE | Harmonized as EN 62047-4. |
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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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60749-19	-	Semiconductor devices - Mechanical and climatic test methods - Part 19: Die shear strength	EN 60749-19	-
ISO 6892-1	2009	Metallic materials - Tensile testing - Part 1: Method of test at room temperature	EN ISO 6892-1	2009
ASTM E399-06e2	2008	Standard Test Method for Linear-Elastic Plane-Strain Fracture Toughness K_{Ic} of Metallic Materials	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SEMICONDUCTOR DEVICES –
MICRO-ELECTROMECHANICAL DEVICES –**
Part 9: Wafer to wafer bonding strength measurement for MEMS

FOREWORD

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International Standard IEC 62047-9 has been prepared by subcommittee 47F: Micro-electromechanical systems, of IEC technical committee 47: *Semiconductor devices*:

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

FDIS	Report on voting
47F/82/FDIS	47F/92/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.

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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