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Semiconductor devices - Micro-electromechanical devices - Part 26: Description and measurement methods for micro trench and needle structures

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/16

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EUROPEAN STANDARD

EN 62047-26

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2016

ICS 31.080.99

English Version

**Semiconductor devices - Micro-electromechanical devices -
Part 26: Description and measurement methods for micro trench
and needle structures
(IEC 62047-26:2016)**

Dispositifs à semiconducteurs - Dispositifs
microélectromécaniques - Partie 26: Description et
méthodes de mesure pour structures de microtranchées et
de microaiguille
(IEC 62047-26:2016)

Halbleiterbauelemente - Bauelemente der
Mikrosystemtechnik - Teil 26: Beschreibung und
Messverfahren für Mikro-Rillen und Nadelstrukturen
(IEC 62047-26:2016)

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European foreword

The text of document 47F/233/FDIS, future edition 1 of IEC 62047-26, prepared by SC 47F "Micro-electromechanical systems", of IEC/TC 47 "Semiconductor devices" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62047-26:2016.

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ISO 3274:1996	NOTE	Harmonized as EN ISO 3274:1997 (not modified).
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INTERNATIONAL STANDARD

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**Semiconductor devices – Micro-electromechanical devices –
Part 26: Description and measurement methods for micro trench and needle
structures**

**Dispositifs à semiconducteurs – Dispositifs microélectromécaniques –
Partie 26: Description et méthodes de mesure pour structures de
microtranchées et de microaiguille**



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NORME INTERNATIONALE



**Semiconductor devices – Micro-electromechanical devices –
Part 26: Description and measurement methods for micro trench and needle
structures**

**Dispositifs à semiconducteurs – Dispositifs microélectromécaniques –
Partie 26: Description et méthodes de mesure pour structures de
microtranchées et de microaiguille**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SEMICONDUCTOR DEVICES – MICRO-ELECTROMECHANICAL DEVICES –

Part 26: Description and measurement methods for micro trench and needle structures

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

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SEMICONDUCTOR DEVICES – MICRO-ELECTROMECHANICAL DEVICES –

Part 26: Description and measurement methods for micro trench and needle structures

1 Scope

This part of IEC 62047 specifies descriptions of trench structure and needle structure in a micrometer scale. In addition, it provides examples of measurement for the geometry of both structures. For trench structures, this standard applies to structures with a depth of 1 μm to 100 μm ; walls and trenches with respective widths of 5 μm to 150 μm ; and aspect ratio of 0,006 7 to 20. For needle structures, the standard applies to structures with three or four faces with a height, horizontal width and vertical width of 2 μm or larger, and with dimensions that fit inside a cube with sides of 100 μm .

This standard is applicable to the structural design of MEMS and geometrical evaluation after MEMS processes.

2 Normative references

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