

# INTERNATIONAL STANDARD

**Semiconductor devices – Micro-electromechanical devices –  
Part 50: MEMS capacitive microphones**



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Part 50: MEMS capacitive microphones**

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SEMICONDUCTOR DEVICES –  
MICRO-ELECTROMECHANICAL DEVICES –

**Part 50: MEMS capacitive microphones**

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The text of this International Standard is based on the following documents:

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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# SEMICONDUCTOR DEVICES – MICRO-ELECTROMECHANICAL DEVICES –

## Part 50: MEMS capacitive microphones

### 1 Scope

This part of IEC 62047 defines the test conditions and test methods for the performance of MEMS capacitive microphones.

This document applies to MEMS capacitive microphones.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 61193-2, *Quality assessment systems – Part 2: Selection and use of sampling plans for inspection of electronic components and packages*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

#### 3.1

##### **MEMS capacitive microphone**

microphone that is composed of micro-electromechanical capacitive sensor, micro-integrated conversion circuit, acoustic cavity, and RF anti-jamming circuit

#### 3.2

##### **acoustic overload point**

maximum sound pressure level at which that the total harmonic distortion of microphone is less than 10 %