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REDLINE VERSION

Passiva radiofrekvens- och mikrovågskomponenter – Mätning av intermodulationsnivån – Del 1: Allmänna fordringar och mätmetoder

*Passive RF and microwave devices, intermodulation level measurement -
Part 1: General requirements and measuring methods*

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IEC 62037-1

Edition 3.0 2025-02
REDLINE VERSION

INTERNATIONAL STANDARD

**Passive RF and microwave devices, intermodulation level measurement –
Part 1: General requirements and measuring methods**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 33.040.20

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PASSIVE RF AND MICROWAVE DEVICES,
INTERMODULATION LEVEL MEASUREMENT –****Part 1: General requirements and measuring methods****FOREWORD**

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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 62037-1:2021. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

IEC 62037-1 has been prepared by IEC technical committee 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories. It is an International Standard.

This third edition cancels and replaces the second edition published in 2021. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) added clarification that PIM generation is typically frequency dependent and noted that testing with swept or multiple fixed frequencies often provides more accurate results;
- b) identified multi-port PIM analyzers as a possible test set-up topography;
- c) added specification that test power level does not exceed the power handling capability of the DUT;
- d) updated test specification to include missing parameters needed to properly define a PIM test;
- e) added clarification that PIM test reports include the maximum PIM value measured over the test duration;
- f) corrected error in Figure 3 that was erroneously changed in IEC 62037-1:2021.

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

Draft	Report on voting
46/1035/FDIS	46/1043/RVD

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. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all the parts in the IEC 62037 series, published under the general title *Passive RF and microwave devices, intermodulation level measurement*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

PASSIVE RF AND MICROWAVE DEVICES, INTERMODULATION LEVEL MEASUREMENT –

Part 1: General requirements and measuring methods

1 Scope

This part of IEC 62037 deals with the general requirements and measuring methods for intermodulation (IM) level measurement of passive RF and microwave components, which can be caused by the presence of two or more transmitting signals.

The test procedures given in this document give the general requirements and measurement methods required to characterize the level of unwanted IM signals using two transmitting signals.

The IEC 62037 series addresses the measurement of PIM but does not cover the long-term reliability of a product with reference to its performance.

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 62037 (all parts), *Passive RF and microwave devices, intermodulation level measurement*~~

There are no normative references in this document.

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Passiva radiofrekvens- och mikrovågskomponenter – Mätning av intermodulationsnivån – Del 1: Allmänna fordringar och mätmetoder

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Part 1: General requirements and measuring methods*

Som svensk standard gäller europastandarden EN IEC 62037-1:2025. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 62037-1:2025.

Nationellt förord

Europastandarden EN IEC 62037-1:2025

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 62037-1, Third edition, 2025 - Passive RF and microwave devices, intermodulation level measurement - Part 1: General requirements and measuring methods**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN IEC 62037-1, utg 2:2022 med eventuella tillägg, ändringar och rättelser gäller ej fr o m 2028-04-30.

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English Version

Passive RF and microwave devices, intermodulation level
measurement - Part 1: General requirements and measuring
methods
(IEC 62037-1:2025)

Dispositifs RF et à micro-ondes passifs, mesure du niveau
d'intermodulation - Partie 1: Exigences générales et
méthodes de mesure
(IEC 62037-1:2025)

Passive HF- und Mikrowellenbauteile, Messung des
Intermodulationspegels - Teil 1: Allgemeine Anforderungen
und Messverfahren
(IEC 62037-1:2025)

This European Standard was approved by CENELEC on 2025-04-02. 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.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 46/1035/FDIS, future edition 3 of IEC 62037-1, prepared by TC 46 "Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62037-1:2025.

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) 2026-04-30
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2028-04-30

This document supersedes EN IEC 62037-1:2021 and all of its amendments and corrigenda (if any).

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The text of the International Standard IEC 62037-1:2025 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 62037-1:2021 NOTE Approved as EN IEC 62037-1:2021 (not modified)



IEC 62037-1

Edition 3.0 2025-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Passive RF and microwave devices, intermodulation level measurement –
Part 1: General requirements and measuring methods**

**Dispositifs RF et à micro-ondes passifs, mesure du niveau d'intermodulation –
Partie 1: Exigences générales et méthodes de mesure**

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