

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

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>See Eesti standard EVS-EN IEC 62037-1:2025 sisaldab Euroopa standardi EN IEC 62037-1:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 18.04.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN IEC 62037-1:2025 consists of the English text of the European standard EN IEC 62037-1:2025.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 18.04.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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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)

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Comité Européen de Normalisation Electrotechnique  
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## 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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2028-04-30

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

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

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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.

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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.

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# 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

There are no normative references in this document.

### 3 Terms, definitions and abbreviated terms

#### 3.1 Terms and definitions

No terms and definitions are listed in this document.

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>

#### 3.2 Abbreviated terms

CATV	community antenna television
CFEC	carbon fibre epoxy composite
CW	continuous wave
DUT	device under test
IM	intermodulation
PCB	printed circuit board
PIM	passive intermodulation
RBW	resolution bandwidth
VDA	vacuum deposited aluminium