IEC 62037-8

Edition 2.0 2025-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Passive RF and microwave devices, intermodulation level measurement – Part 8: Measurement of passive intermodulation generated by objects exposed to RF radiation

Dispositifs RF et à micro-ondes passifs, mesure du niveau d'intermodulation – Partie 8: Mesure de l'intermodulation passive générée par des objets exposés au rayonnement RF

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CONTENTS

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Part 8: Measurement of passive intermodulation generated by objects exposed to RF radiation

FOREWORD

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IEC 62037-8 has been prepared by technical committee 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories. It is an International Standard.

This second edition cancels and replaces the first edition published in 2022. This edition constitutes a technical revision.

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

a) added safety warning to verify that transmitters are switched off before connecting or disconnecting any component;
b) corrected formula for calculating directivity;
c) corrected antenna orientation labels in Figure 6;
d) added clarification that PIM tests reports shall include maximum PIM and VSWR values.

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

Draft	Report on voting
46/1039/FDIS	46/1045/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 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 8: Measurement of passive intermodulation generated by objects exposed to RF radiation

1 Scope

This part of IEC 62037 defines a radiated passive intermodulation (PIM) test to determine PIM levels generated by a device or object when it is exposed to RF radiation. This test can be conducted on any material or object and is not limited to devices designed to propagate RF signals. This test can be conducted as either a near field or far field test as defined by the test specification in an outdoor test site or in an anechoic test chamber.

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 62037-1, *Passive RF and microwave devices, intermodulation level measurement – Part 1: General requirements and measuring methods*

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/
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3.2 Abbreviated terms

AIM active intermodulation
DUT device under test
IM intermodulation
PIM passive intermodulation
VSWR voltage standing wave ratio