



Edition 2.1 2025-12

INTERNATIONAL STANDARD

CONSOLIDATED VERSION

Passive RF and microwave devices, intermodulation level measurement - Part 6: Measurement of passive intermodulation in antennas

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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This consolidated version of the official IEC Standard and its amendment has been prepared for user convenience.

IEC 62037-6 edition 2.1 contains the second edition (2021-11) [documents 46/838/FDIS and 46/859/RVD] and its amendment 1 (2025-12) [documents 46/1030/CDV and 46/1056/RVC].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

IEC 62037-6 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 second edition cancels and replaces the first edition published in 2013. This edition constitutes a technical revision.

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

a) dynamic testing requirements updated to define impact energy and locations to apply impacts to devices under test;

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

Draft	Report on voting
46/838/FDIS	46/859/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/standardsdev/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 and its amendment 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.

INTRODUCTION to Amendment

The purpose of this amendment is:

- to improve Clause 5 Antenna design and field installation considerations, 5.3 Mounting considerations to avoid PIM generation, paragraph 2: change "towards a clear sky view and to isolate it" to "from".
- to correct Clause 7 Dynamic PIM measurement considerations, 7.2 Dynamic testing, methodology paragraph 3: to add "maximum" to the PIM values to be reported.

1 Scope

This part of IEC 62037 defines the test fixtures and procedures recommended for measuring levels of passive intermodulation generated by antennas, typically used in wireless communication systems. The purpose is to define qualification and acceptance test methods for antennas for use in low intermodulation (low IM) applications.

2 Normative references

There are no normative references in this document.

Bibliography

IEC 60068-2-75, Environmental testing – Part 2-75: Tests – Test Eh: Hammer tests

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

IEC 62037-3, Passive RF and microwave devices, intermodulation level measurement – Part 3: Measurement of passive intermodulation in coaxial connectors

ISO 2039-2, Plastics – Determination of hardness – Part 2: Rockwell hardness