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## REDLINE VERSION

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### **Passiva radiofrekvens- och mikrovågskomponenter – Mätning av intermodulationsnivån – Del 3: Mätning av passiv intermodulation i koaxialdon**

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

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IEC 62037-3

Edition 2.0 2021-11  
REDLINE VERSION

# INTERNATIONAL STANDARD



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

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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ICS 33.040.20

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PASSIVE RF AND MICROWAVE DEVICES,  
INTERMODULATION LEVEL MEASUREMENT –****Part 3: Measurement of passive intermodulation in coaxial connectors****FOREWORD**

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IEC 62037-3 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 2012. This edition constitutes a technical revision.

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

- a) impact method changed to utilize a steel ball rather than a brass rod;
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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/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

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## PASSIVE RF AND MICROWAVE DEVICES, INTERMODULATION LEVEL MEASUREMENT –

### Part 3: Measurement of passive intermodulation in coaxial connectors

#### 1 Scope

This part of IEC 62037 defines the impact test on coaxial connectors to evaluate their robustness against weak connections and particles inside the connector, as independently as possible from the effects of cable PIM (passive intermodulation).

For other connectors (e.g. panel mounted connectors), the cable can be replaced by an adequate transmission-line (e.g. airline, stripline). In order to evaluate the effects of mechanical stresses on the connectors, a series of impacts is applied to the connectors while measuring the PIM.

#### 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*<sup>1</sup>

IEC 62037-4, *Passive RF. and microwave devices, intermodulation level measurement – Part 4: Measurement of passive intermodulation in coaxial cables*<sup>2</sup>

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<sup>1</sup>~~To be published.~~

<sup>2</sup>~~To be published.~~

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## **Passiva radiofrekvens- och mikrovågskomponenter – Mätning av intermodulationsnivån – Del 3: Mätning av passiv intermodulation i koaxialdon**

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

Som svensk standard gäller europastandarden EN IEC 62037-3:2021. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 62037-3:2021.

### **Nationellt förord**

Europastandarden EN IEC 62037-3:2021

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 62037-3, Second edition, 2021 - Passive RF and microwave devices, intermodulation level measurement - Part 3: Measurement of passive intermodulation in coaxial connectors**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 62037-3, utgåva 1, 2013, gäller ej fr o m 2024-12-23.

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Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

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English Version

**Passive RF and microwave devices, intermodulation level  
measurement - Part 3: Measurement of passive intermodulation  
in coaxial connectors  
(IEC 62037-3:2021)**

Dispositifs RF et à micro-ondes passifs, mesure du niveau  
d'intermodulation - Partie 3: Mesure de l'intermodulation  
passive dans les connecteurs coaxiaux  
(IEC 62037-3:2021)

Passive HF- und Mikrowellenbauteile, Messung des  
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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 46/836/FDIS, future edition 2 of IEC 62037-3, prepared by IEC/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 62037-3:2021.

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) 2022-09-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-12-23

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## Annex ZA (normative)

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62037-1	-	Passive RF and microwave devices, intermodulation level measurement - Part 1: General requirements and measuring methods	EN IEC 62037-1	-
IEC 62037-4	-	Passive RF and microwave devices, intermodulation level measurement - Part 4: Measurement of passive intermodulation in coaxial cables	EN 62037-4	-



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# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



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

**Dispositifs RF et à micro-ondes passifs, mesure du niveau d'intermodulation –  
Partie 3: Mesure de l'intermodulation passive dans les connecteurs coaxiaux**

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ELECTROTECHNICAL  
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## **PASSIVE RF AND MICROWAVE DEVICES, INTERMODULATION LEVEL MEASUREMENT –**

### **Part 3: Measurement of passive intermodulation in coaxial connectors**

#### **1 Scope**

This part of IEC 62037 defines the impact test on coaxial connectors to evaluate their robustness against weak connections and particles inside the connector, as independently as possible from the effects of cable PIM (passive intermodulation).

For other connectors (e.g. panel mounted connectors), the cable can be replaced by an adequate transmission-line (e.g. airline, stripline). In order to evaluate the effects of mechanical stresses on the connectors, a series of impacts is applied to the connectors while measuring the PIM.

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