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REDLINE VERSION

Anslutningsdon för högfrekvens – Del 54: Grupp-specifikation för koaxialdon med 10 mm innerdiameter på ytterledaren, typ 4,3-10

Radio frequency connectors –

*Part 54: Sectional specification for coaxial connectors with 10 mm inner diameter
of outer conductor, nominal characteristic impedance 50 Ω , Series 4,3-10*

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INTERNATIONAL STANDARD



**Radio-frequency connectors –
Part 54: Sectional specification for coaxial connectors with 10 mm inner
diameter of outer conductor, nominal characteristic impedance 50 Ω ,
series 4,3-10**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 33.120.30

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

RADIO-FREQUENCY CONNECTORS –

**Part 54: Sectional specification for coaxial connectors
with 10 mm inner diameter of outer conductor,
nominal characteristic impedance 50 Ω , series 4,3-10**

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 61169-54:2016. 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 61169-54 has been prepared by subcommittee 46F: RF and microwave passive components, of 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 2016. This edition constitutes a technical revision.

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

- a) updated patent statement,
- b) Table 8: some values changed.

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

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

A list of all parts of the IEC 61169 series, under the general title: *Radio-frequency connectors*, 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 "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
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INTRODUCTION

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent ~~concerning the design of these connectors given in 3.1.2~~. IEC takes no position concerning the evidence, validity, and scope of this patent right.

The holder of this patent right has assured IEC that s/he is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with IEC. ~~More detailed information may be obtained from:~~

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RADIO-FREQUENCY CONNECTORS –

Part 54: Sectional specification for coaxial connectors with 10 mm inner diameter of outer conductor, nominal characteristic impedance 50 Ω , series 4,3-10

1 Scope

This part of IEC 61169, which is a sectional specification (SS), provides information and rules for the preparation of detail specifications (DS) for coaxial connectors with 10 mm inner diameter of outer conductor, characteristic impedance 50 Ω , series 4,3-10 with screw type, hand screw type or quick-lock type coupling, for an upper operating frequency limit of 6 GHz, for use in wireless telecommunication and wireless network applications in conjunction with appropriate transmission line types for these applications.

It also describes mating face dimensions for general purpose connectors, gauging information and tests selected from IEC 61169-1, applicable to all detail specifications relating to 4,3-10 series connectors.

This specification indicates the recommended performance characteristics to be considered when writing a detail specification and it covers test schedules and inspection requirements for assessment levels M and H.

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 61169-1:2013, *Radio-frequency connectors – Part 1: Generic specification – General requirements and measuring methods*

IEC 62037-1:2012, *Passive RF and microwave devices, intermodulation level measurement – Part 1: General requirements and measuring methods*

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Anslutningsdon för högfrekvens – Del 54: Gruppspecifikation för koaxialdon med 10 mm innerdiameter på ytterledaren, typ 4,3-10

Radio frequency connectors –

Part 54: Sectional specification for coaxial connectors with 10 mm inner diameter of outer conductor, nominal characteristic impedance 50 Ω, Series 4,3-10

Som svensk standard gäller europastandarden EN IEC 61169-54:2021. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 61169-54:2021.

Nationellt förord

Europastandarden EN IEC 61169-54:2021

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 61169-54, Second edition, 2021 - Radio frequency connectors - Part 54: Sectional specification for coaxial connectors with 10 mm inner diameter of outer conductor, nominal characteristic impedance 50 Ω, Series 4,3-10**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 61169-54, utgåva 1, 2017, gäller ej fr o m 2024-10-01.

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English Version

Radio frequency connectors - Part 54: Sectional specification for
coaxial connectors with 10 mm inner diameter of outer
conductor, nominal characteristic impedance 50 Ω , Series 4,3-10
(IEC 61169-54:2021)

Connecteurs pour fréquences radioélectriques - Partie 54:
Spécification intermédiaire relative aux connecteurs
coaxiaux avec diamètre intérieur du conducteur extérieur de
10 mm, impédance caractéristique nominale 50 Ω , série
4,3-10
(IEC 61169-54:2021)

Hochfrequenz-Steckverbinder - Teil 54:
Rahmenspezifikation für koaxiale HF-Steckverbinder mit 10
mm Innendurchmesser des Außenleiters, Wellenwiderstand
50 Ω , Typ 4,3-10
(IEC 61169-54:2021)

This European Standard was approved by CENELEC on 2021-10-01. 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 foreword

The text of document 46F/574/FDIS, future edition 2 of IEC 61169-54, prepared by SC 46F "RF and microwave passive components" of 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 61169-54:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-07-01 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2024-10-01 document have to be withdrawn

This document supersedes EN 61169-54:2016 and all of its amendments and corrigenda (if any).

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Endorsement notice

The text of the International Standard IEC 61169-54:2021 was approved by CENELEC as a European Standard without any modification.

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61169-1	2013	Radio-frequency connectors - Part 1: Generic specification - General requirements and measuring methods	EN 61169-1	2013
IEC 62037-1	2012	Passive RF and microwave devices, intermodulation level measurement - Part 1: General requirements and measuring methods	EN 62037-1	2012

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Radio-frequency connectors –

Part 54: Sectional specification for coaxial connectors with 10 mm inner diameter of outer conductor, nominal characteristic impedance 50 Ω , series 4,3-10

Connecteurs pour fréquences radioélectriques –

Partie 54: Spécification intermédiaire relative aux connecteurs coaxiaux avec diamètre intérieur du conducteur extérieur de 10 mm, impédance caractéristique nominale 50 Ω , série 4,3-10

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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RADIO-FREQUENCY CONNECTORS –

Part 54: Sectional specification for coaxial connectors with 10 mm inner diameter of outer conductor, nominal characteristic impedance 50 Ω , series 4,3-10

1 Scope

This part of IEC 61169, which is a sectional specification (SS), provides information and rules for the preparation of detail specifications (DS) for coaxial connectors with 10 mm inner diameter of outer conductor, characteristic impedance 50 Ω , series 4,3-10 with screw type, hand screw type or quick-lock type coupling, for an upper operating frequency limit of 6 GHz, for use in wireless telecommunication and wireless network applications in conjunction with appropriate transmission line types for these applications.

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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 61169-1:2013, *Radio-frequency connectors – Part 1: Generic specification – General requirements and measuring methods*

IEC 62037-1:2012, *Passive RF and microwave devices, intermodulation level measurement – Part 1: General requirements and measuring methods*