

<b>STN</b>	<b>Vysokofrekvenčné konektory Časť 21: Rámcová špecifikácia pre vysokofrekvenčné konektory s vnútorným priemerom vonkajšieho vodiča 9,5 mm (0,374 in) so závitovým spojením Charakteristická impedancia 50 Ohm (Typ SC)</b>	<b>STN EN IEC 61169-21</b>  35 3811
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Radio-frequency connectors - Part 21: Sectional specification for RF connectors with inner diameter of outer conductor 9,5 mm (0,374 in) with screw coupling - Characteristic impedance 50 ohms (Type SC)

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/22

Obsahuje: EN IEC 61169-21:2022, IEC 61169-21:2022

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
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**EN IEC 61169-21**

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English Version

**Radio-frequency connectors - Part 21: Sectional specification for  
RF connectors with inner diameter of outer conductor 9,5 mm  
(0,374 in) with screw coupling - Characteristic impedance 50  
ohms (Type SC)  
(IEC 61169-21:2022)**

Connecteurs pour fréquences radioélectriques - Partie 21:  
Spécification intermédiaire relatives aux connecteurs RF  
avec conducteur extérieur de 9,5 mm (0,374 in) de diamètre  
intérieur à verrouillage à vis - Impédance caractéristique de  
50 ohms (Type SC)  
(IEC 61169-21:2022)

Hochfrequenz-Steckverbinder - Teil 21:  
Rahmenspezifikation für HF-Steckverbinder mit einem  
Innen-/Außenleiterdurchmesser von 9,5 mm mit  
Schraubkupplung - Wellenwiderstand 50 Ohm (Typ SC)  
(IEC 61169-21:2022)

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**EN IEC 61169-21:2022 (E)****European foreword**

The text of document 46F/601/FDIS, future edition 1 of IEC 61169-21, 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 61169-21:2022.

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<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 61169-1-6	-	Radio-frequency connectors - Part 1-6: Electrical test methods - RF power	-	-
IEC 60169-21	1985	Radio-frequency connectors. Part 21: Two types of radio-frequency connectors with inner diameter of outer conductor 9.5 mm (0.374 in) with different versions of screw coupling - Characteristic impedance 50 ohms (Types SC-A and SC-B)	EN 60169-21	1997
IEC 62153-4-7	-	Metallic cables and other passive components test methods - Part 4-7: Electromagnetic compatibility (EMC) -Test method for measuring of transfer impedance $Z_T$ and screening attenuation $a_s$ or coupling attenuation $a_c$ of connectors and assemblies - Triaxial tube in tube method	EN IEC 62153-4-7	-



# IEC 61169-21

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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Radio-frequency connectors –  
Part 21: Sectional specification for RF connectors with inner diameter of outer  
conductor 9,5 mm (0,374 in) with screw coupling – Characteristic impedance  
50 ohms (Type SC)**

**Connecteurs pour fréquences radioélectriques –  
Partie 21: Spécification intermédiaire relatives aux connecteurs RF avec  
conducteur extérieur de 9,5 mm (0,374 in) de diamètre intérieur à verrouillage  
à vis – Impédance caractéristique de 50 ohms (Type SC)**



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IEC Secretariat  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland

Tel.: +41 22 919 02 11  
[info@iec.ch](mailto:info@iec.ch)  
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IEC 61169-21

Edition 1.0 2022-02

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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## Radio-frequency connectors –

**Part 21: Sectional specification for RF connectors with inner diameter of outer conductor 9,5 mm (0,374 in) with screw coupling – Characteristic impedance 50 ohms (Type SC)**

## Connecteurs pour fréquences radioélectriques –

**Partie 21: Spécification intermédiaire relatives aux connecteurs RF avec conducteur extérieur de 9,5 mm (0,374 in) de diamètre intérieur à verrouillage à vis – Impédance caractéristique de 50 ohms (Type SC)**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**RADIO-FREQUENCY CONNECTORS –****Part 21: Sectional specification for RF connectors with inner diameter of outer conductor 9,5 mm (0,374 in) with screw coupling – Characteristic impedance 50 ohms (Type SC)**

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

Draft	Report on voting
46F/601/FDIS	46F/613/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](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).

A list of all parts of the IEC 61169 series, under the general title: *Radio-frequency connectors*, can be found on the IEC website.

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## RADIO-FREQUENCY CONNECTORS –

### **Part 21: Sectional specification for RF connectors with inner diameter of outer conductor 9,5 mm (0,374 in) with screw coupling – Characteristic impedance 50 ohms (Type SC)**

#### **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 type SC threaded RF coaxial connectors with 50  $\Omega$  characteristic impedance. The connectors are used with flexible and semi-rigid cables. They are recommended for use in medium power and low reflection applications up to 11 GHz. The dielectric filled interface is especially beneficial in applications involving severe environmental exposure.

This document specifies mating face dimensions, dimensional details, gauging information for general connectors – grade 2 and standard test connectors – grade 0 as well as test schedules and inspection requirements selected from IEC 61169-1, applicable to all detail specifications relating to type SC RF connectors. Type SC interface specified in this document is equivalent to type SC-B interface in IEC 60169-21:1985.

This document indicates 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.

NOTE Metric dimension are original dimensions. All undimensioned pictorial configurations are for reference purpose only.

#### **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 61169-1-6, *Radio-frequency connectors – Part 1-6: Electrical test methods – RF power*

IEC 60169-21:1985, *Radio-frequency connectors – Part 21: Two types of radio-frequency connectors with inner diameter of outer conductor 9,5 mm (0,374 in) with different versions of screw coupling – Characteristic impedance 50 ohms (Types SC-A and SC-B)*

IEC 62153-4-7, *Metallic cables and other passive components test methods – Part 4-7: Electromagnetic compatibility (EMC) – Test method for measuring of transfer impedance  $Z_T$  and screening attenuation  $a_S$  or coupling attenuation  $a_C$  of connectors and assemblies – Triaxial tube in tube method*

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