Radio frequency connectors - Part 1-5: Electrical test methods - Rise time degradation

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 61169-1-5:2022 sisaldab Euroopa standardi EN IEC 61169-1-5:2022 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 61169-1-5:2022 consists of the English text of the European standard EN IEC 61169-1-5:2022.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
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EUROPÄISCHE NORM

EN IEC 61169-1-5

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English Version

Radio frequency connectors - Part 1-5: Electrical test methods - Rise time degradation (IEC 61169-1-5:2022)

Connecteurs pour fréquences radioélectriques - Partie 1-5: Méthodes d'essai électrique - Dégradation du temps de montée (IEC 61169-1-5:2022)

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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 46F/592/FDIS, future edition 1 of IEC 61169-1-5, 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 61169-1-5:2022.

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IEC 61169-1-5

Edition 1.0 2022-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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Part 1-5: Electrical test methods – Rise time degradation

Connecteurs pour fréquences radioélectriques –
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IEC 61169-1-5:2022-02(en-fr)

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Radio frequency connectors – Part 1-5: Electrical test methods – Rise time degradation

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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IEC 61169-1-5 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.

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

Draft	Report on voting
46F/592/FDIS	46F/608/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 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 1-5: Electrical test methods – Rise time degradation

1 Scope

This part of IEC 61169 provides test methods for the rise time degradation of radio frequency (RF) connector.

This document is applicable to triaxial and other radio frequency connectors.

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61169-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
rise time degradation
increase in rise time to a theoretically perfect (zero rise time) voltage step when the sample is inserted in the transmission path

Note 1 to entry: In general, the formula used to calculate rise time degradation from 20 % to 80 % levels is as follows:

$$t_3 = \sqrt{(t_2^{\,2} - t_1^{\,2})} \tag{1}$$

where

t_3 is the rise time degradation;

t_2 is the measured rise time when the sample is inserted in the transmission path;

t_1 is the measurement system rise time.