# IEC 61196-1-119

Edition 3.0 2023-07

# INTERNATIONAL STANDARD

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## Coaxial communication cables – Part 1-119: Electrical test methods – RF power for coaxial cables and cable assemblies



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## Coaxial communication cables – Part 1-119: Electrical test methods – RF power for coaxial cables and cable assemblies

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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# COAXIAL COMMUNICATION CABLES –

# Part 1-119: Electrical test methods – RF power for coaxial cables and cable assemblies

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IEC 61196-1-119 has been prepared by subcommittee 46A: Coaxial cables, of IEC technical committee 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories. It is an International Standard.

This third edition cancels and replaces the second edition published in 2020. This edition constitutes a technical revision.

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

a) complete technical revision;
b) extension to measure also cable assemblies.

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

| Draft | Report on voting |
|---|---|
| 46A/1622/CDV | 46A/1629/RVC |

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/publications.

A list of all parts in the IEC 61196 series, published under the general title *Coaxial communication cables*, 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 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- withdrawn,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
- amended.

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# COAXIAL COMMUNICATION CABLES –

# Part 1-119: Electrical test methods – RF power for coaxial cables and cable assemblies

## 1 Scope

This part of IEC 61196 provides test methods for RF power rating and power withstanding of RF coaxial cables and cable assemblies at specified frequency, temperature and altitude.

This document is applicable to RF coaxial cables and cable assemblies.

## 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 61196-1-113, *Coaxial communication cables – Part 1-113: Electrical test methods – Test for attenuation constant*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

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

**3.1**
**power rating**
input power at a specified frequency and normalized environmental conditions, which can be handled continuously without either the maximum permissible operating voltage, or maximum inner conductor temperature being exceeded, when the cable assembly is terminated by a load corresponding to the characteristic impedance

**3.2**
**power withstanding**
ability of RF coaxial cable and cable assembly to handle power specified in the relevant specification at the temperature, altitude and frequency as specified

**3.3**
**average power**
energy transfer rate of an RF coaxial cable and cable assembly averaged over many periods of the RF waveform at the specified frequency, temperature and altitude