IEC 61196-1-123

Edition 1.0 2023-03

INTERNATIONAL STANDARD

Coaxial communication cables – Part 1-123: Electrical test methods – Test for attenuation constant of radiating cable



IEC 61196-1-123:2023-03(en)



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ICS 33.120.10

ISBN 978-2-8322-6463-8

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COAXIAL COMMUNICATION CABLES –

Part 1-123: Electrical test methods – Test for attenuation constant of radiating cable

FOREWORD

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IEC 61196-1-123 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.

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

Draft	Report on voting
46A/1613/FDIS	46A/1625/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/publications.

A list of all the 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- withdrawn,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.

COAXIAL COMMUNICATION CABLES –

Part 1-123: Electrical test methods – Test for attenuation constant of radiating cable

1 Scope

This part of IEC 61196 defines the test method to determine the attenuation constant of radiating coaxial communication cables that are intended for use in wireless communication systems such as tunnels, railways, highways, subways, elevators and other confined areas in which conventional antenna transmission is not satisfactory or even impossible.

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, *Coaxial communication cables – Part 1: Generic specification – General, definitions and requirements*

IEC 61196-4, *Coaxial communication cables − Part 4: Sectional specification for radiating cables*

3 Terms and definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61196-1 and IEC 61196-4 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

3.2 Abbreviated terms

CUT Cable under test

VNA Vector network analyser

4 Methodology

4.1 General

The measurements of attenuation for radiating cables can be carried out by one of the two following methods, where the free-space method shall be the arbitration method if there is an argument:

– free-space method;

– ground-level method.