

INTERNATIONAL STANDARD



**Coaxial communication cables –
Part 4: Sectional specification for radiating cables**



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**Coaxial communication cables –
Part 4: Sectional specification for radiating cables**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COAXIAL COMMUNICATION CABLES –**Part 4: Sectional specification for radiating cables**

FOREWORD

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International Standard IEC 61196-4 has been prepared by subcommittee 46A: Coaxial cables, of IEC technical committee 46: Cables, wires, waveguides, R.F. connectors, R.F. and microwave passive components and accessories.

This third edition cancels and replaces the second edition published in 2004. This edition constitutes a technical revision.

The main changes with respect to the previous edition are as follows:

- a definition for coupling loss was added,
- Clause 4 "Materials and cable construction" was added,
- rated temperature range, operating frequency and radiating characteristics as standard rating and characteristics were added,
- identification, marking and labeling was added,

- the tables of test procedures were revised,
- quality assessment and packaging was added,
- Annex C, “Coupling loss around circumferential orientation of radiating cable” was added
- Annex D “Radiating intensity around circumferential orientation of radiating cable” was added.

The text of this standard is based on the following documents:

FDIS	Report on voting
46A/1256/FDIS	46A/1273/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This publication is to be read in conjunction with IEC 61196-1:2005.

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 publication will remain unchanged until the stability date indicated on the IEC website under (<http://webstore.iec.ch>) in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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COAXIAL COMMUNICATION CABLES –

Part 4: Sectional specification for radiating cables

1 Scope

This part of IEC 61196 applies to radiating coaxial communication cables. These cables are intended for use in wireless communication systems, such as tunnels, railways, highways, subways, elevators and other installations in which conventional antenna transmission is not satisfactory or even impossible.

It is to be read in conjunction with IEC 61196-1:2005.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60068-1:2013, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-61, *Environmental testing – Part 2-61: Test methods: Test Z/ABDM: Climatic sequence*

IEC 60332-1-2, *Tests on electric and optical fibre cables under fire conditions – Part 1-2: Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1 kW pre-mixed flame*

IEC TS 60695-7-50, *Fire hazard testing – Part 7-50: Toxicity of fire effluent – Estimation of toxic potency – Apparatus and test method*

IEC TS 60695-7-51, *Fire hazard testing – Part 7-51: Toxicity of fire effluent – Estimation of toxic potency: Calculation and interpretation of test results*

IEC 60754-1, *Test on gases evolved during combustion of materials from cables – Part 1: Determination of the halogen acid gas content*

IEC 60811-4-06, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 4-06: Miscellaneous tests – Resistance to stress cracking of polyethylene and polypropylene compounds*

IEC 61034-2:2005, *Measurement of smoke density of cables burning under defined conditions – Part 2: Test procedure and requirements*

IEC 61196-1:2005, *Coaxial communication cables – Part 1: Generic specification – General, definitions and requirements*

IEC 61196-1-1, *Coaxial communication cables – Part 1-1: Capability approval for coaxial cables*