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INTERNATIONAL STANDARD

Coaxial communication cables – Part 7: Sectional specification for cables for BCT cabling in accordance with ~~ISO/IEC 15018~~ ISO/IEC 11801-4 – Indoor drop cables for systems operating at 5 MHz – ~~3 000~~ 6 000 MHz

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COAXIAL COMMUNICATION CABLES –

Part 7: Sectional specification for cables for BCT cabling in accordance with ~~ISO/IEC 15018~~ ISO/IEC 11801-4 – Indoor drop cables for systems operating at 5 MHz – ~~3 000~~ 6 000 MHz

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 61196-7:2011. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

IEC 61196-7 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 second edition cancels and replaces the first edition published in 2011. This edition constitutes a technical revision.

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

a) extension of frequency range up to 6 GHz,

b) revised sheath marking and labelling,

c) a table with typical cable characteristics was added as Annex B.

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

FDIS	Report on voting
46A/1499/FDIS	46A/1516/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.

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

A list of all parts of 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

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- withdrawn,
- replaced by a revised edition, or
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COAXIAL COMMUNICATION CABLES –

Part 7: Sectional specification for cables for BCT cabling in accordance with ~~ISO/IEC 15018~~ ISO/IEC 11801-4 – Indoor drop cables for systems operating at 5 MHz – ~~3 000~~ 6 000 MHz

1 Scope

This part of IEC 61196 applies to coaxial communications cables. It specifies the requirements for cables for broadcast and communications technologies (BCT) cabling in accordance with ~~ISO/IEC 15018~~ ISO/IEC 11801-4 for use in cabled television distribution networks operating at temperature between −40 °C and +70 °C[4] and in the frequency range from 5 MHz to ~~3 000~~ 6 000 MHz ~~and is to be read in conjunction with IEC 61196-1~~.

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 60096-0-1, *Radio frequency cables – Part 0-1: Guide to the design of detail specifications – Coaxial cables*

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

IEC 61196-1-101, *Coaxial communication cables – Part 1-101: Electrical test methods – Test for conductor d.c. resistance of cable*

IEC 61196-1-102, *Coaxial communication cables – Part 1-102: Electrical test methods – Test for insulation resistance of cable dielectric*

IEC 61196-1-103, *Coaxial communication cables – Part 1-103: Electrical test methods – Test for capacitance of cable*

IEC 61196-1-105, *Coaxial communication cables – Part 1-105: Electrical test methods – Test for withstand voltage of cable dielectric*

IEC 61196-1-106, *Coaxial communication cables – Part 1-106: Electrical test methods – Test for withstand voltage of cable sheath*

IEC 61196-1-108, *Coaxial communication cables – Part 1-108: Electrical test methods – Test for characteristic impedance, phase and group delay, electrical length and propagation velocity*

IEC 61196-1-112, *Coaxial communication cables – Part 1-112: Electrical test methods – Test for return loss (uniformity of impedance)*

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[4] ~~Only valid without current load.~~

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

IEC 61196-1-115, *Coaxial communication cables – Part 1-115: Electrical test methods – Test for regularity of impedance (pulse/step function return loss)*

IEC 61196-1-201:2009, *Coaxial communication cables – Part 1-201: Environmental test methods – Test for cold bend performance of cable*

IEC 61196-1-203, *Coaxial communication cables – Part 1-203: Environmental test methods – Test for water penetration of cable*

IEC 61196-1-206, *Coaxial communication cables – Part 1-206: Environmental test methods – Climatic sequence*

IEC 61196-1-212, *Coaxial communication cables – Part 1-206: Environmental test methods – UV stability*

IEC 61196-1-304, *Coaxial communication cables – Part 1-304: Mechanical test methods – Impact resistance* ~~[2]~~

IEC 61196-1-308, *Coaxial communication cables – Part 1-308: Mechanical test methods – Test for tensile strength and elongation for copper-clad metals*

IEC 61196-1-313, *Coaxial communication cables – Part 1-313: Mechanical test methods – Adhesion of dielectric and sheath*

IEC 61196-1-314:~~2006~~2015, *Coaxial communication cables – Part 1-314: Mechanical test methods – Test for bending*

IEC 61196-1-316, *Coaxial communication cables – Part 1-316: Mechanical test methods – Test of maximum pulling force of cable*

IEC 61196-1-317, *Coaxial communication cables – Part 1-317: Mechanical test methods – Test for crush resistance of cable*

IEC 61196-1-324, *Coaxial communication cables – Part 1-324: Mechanical test methods – Test for abrasion resistance of cable*

IEC 62153-1-1, *Metallic communication cables test methods − Part 1-1: Electrical − Measurement of the pulse/step return loss in the frequency domain using the Inverse Discrete Fourier Transformation (IDFT)*

IEC 62153-4-3, *Metallic communication cable test methods – Part 4-3: Electromagnetic compatibility (EMC) – Surface transfer impedance – Triaxial method*

IEC 62153-4-4, *Metallic communication cable test methods – Part 4-4: Electromagnetic compatibility (EMC) –* ~~*Shielded screening attenuation,*~~ *Test method for measuring of the screening attenuation as up to and above 3 GHz, triaxial method*

IEC 62230, *Electric cables – Spark-test method*

~~ISO/IEC 15018, *Information technology – Generic cabling for homes*~~

~~[2] To be published~~

ISO/IEC 11801-4, *Information technology – Generic cabling for customer premises – Part 4: Single-tenant homes*

ISO/IEC TR 29106:2007, *Information technology – Generic cabling – Introduction to the MICE environmental classification*

~~EN 50289-1-6, *Communication cables – Specifications for test methods – Electrical test methods – Electromagnetic performance*~~

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Edition 2.0 2021-08

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Coaxial communication cables – Part 7: Sectional specification for cables for BCT cabling in accordance with ISO/IEC 11801-4 – Indoor drop cables for systems operating at 5 MHz – 6 000 MHz



IEC 61196-7:2021-08(en)

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Part 7: Sectional specification for cables for BCT cabling in accordance with ISO/IEC 11801-4 – Indoor drop cables for systems operating at 5 MHz – 6 000 MHz

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