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INTERNATIONAL STANDARD

**Radio frequency and coaxial cable assemblies -
Part 4-4: Semi-rigid coaxial cable - Detail specification - Frequency range up to 6 000 MHz, type 50-5 multi-channel cables**

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IEC 60966-4-4 has been prepared by 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
46/1048/CDV	46/1064/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 60966 series, published under the general title *Radio frequency and coaxial cable assemblies*, 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– withdrawn, or

– revised.

1 Scope

This part of IEC 60966, which is a Detail Specification, relates to multi-channel semi-rigid cable assemblies composed of type 50-5 semi-rigid coaxial cables with foamed polyethylene dielectric (see Annex A) and connectors such as type 7-16 (IEC 61169-4), type 4.1-9.5 (IEC 61169-11), type N (IEC 61169-16), type S7-16 (IEC 61169-53), type 4.3-10 (IEC 61169-54), type L32 (IEC 63138-4), type 2.2-5 (IEC 61169-66), type NEX10® [1] (IEC 61169-71), type MQ4 (IEC 63138-2) or type MQ5 (IEC 63138-3). It gives subfamily detail requirements and severities.

This document applies to the semi-rigid cable assemblies for mobile communication, in particular for the cable assemblies used between main feeder and antennas or between main feeder and equipment system or between remote radio heads and antennas. The operating frequency is up to 6 000 MHz.

2 Normative documents

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 60068-2-11*, Environmental testing - Part 2:Tests-Test Ka: Salt mist*

IEC 60529*, Degrees of protection provided by enclosures (IP Code)*

IEC 60966-1:2019, *Radio frequency and coaxial cable assemblies - Part 1: Generic specification - General requirements and test methods*

IEC 60966-4, *Radio frequency and coaxial cable assemblies - Part 4: Sectional specification for semi-rigid coaxial cable assemblies*

IEC 60966-4-1, *Radio frequency and coaxial cable assemblies - Part 4-1: Blank detail specification for semi-rigid coaxial cable assemblies*

IEC 61169-4, *Radio-frequency connectors - Part 4: RF coaxial connectors with inner diameter of outer conductor 16 mm (0,63 in) with screw lock - Characteristic impedance 50 Ω (type 7-16)*

IEC 61169-11, *Radio-frequency connectors - Part 11: Sectional specification for RF coaxial connectors with inner diameter of outer conductor 9,5 mm with threaded coupling - characteristic impedance 50 Ω (Type 4,1-9,5)*

IEC 61169-16, *Radio-frequency connectors - Part 16: Sectional specification - RF coaxial connectors with inner diameter of outer conductor 7 mm (0,276 in) with screw coupling - Characteristics impedance 50 Ω (75 Ω) (type N)*

IEC 61169-53, *Radio-frequency connectors - Part 53: Sectional specification for RF coaxial connectors with inner diameter of outer conductor 16 mm with screw lock - Characteristic impedance 50 Ω (Type S7-16)*

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[1] NEX10® is an example of a suitable product available commercially. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of this product.

IEC 61169-54, *Radio-frequency connectors - Part 54: Sectional specification for coaxial connectors with 10 mm inner diameter of outer conductor, nominal characteristic impedance 50 Ω, Series 4,3-10)*

IEC 61169-66, *Radio-frequency connectors - Part 66: Sectional specification for RF coaxial connectors with 5 mm inner diameter of outer conductor*, *with quick-lock- or screw-coupling, characteristic impedance 50 Ω (series 2,2-5)*

IEC 61169-71, *Radio-frequency connectors - Part 71: Sectional specification for RF coaxial connectors with inner diameter of outer conductor 5 mm - Characteristic impedance 50 Ohms - type NEX10®*

IEC 61196-11, *Coaxial communication cables - Part 11: Sectional specification for semi-rigid cables with polyethylene (PE) dielectric*

IEC 63138-1:2019, *Multi-channel radio frequency connectors - Part 1: Generic specification - General requirements and test methods*

IEC 63138-2, *Multi-channel radio-frequency connectors - Part 2: Sectional specification for MQ4 series circular connectors*

IEC 63138-3, *Multi-channel radio frequency connectors - Part 3: Sectional specification for MQ5 series circular connectors*

IEC 63138-4[2], *Multi-channel radio-frequency connectors - Part 4: Sectional specification for type L32-4 and L32-5 circular connectors*

[2] Under preparation. Stage at the time of publication: IEC/CFDIS 63138-4:2025.