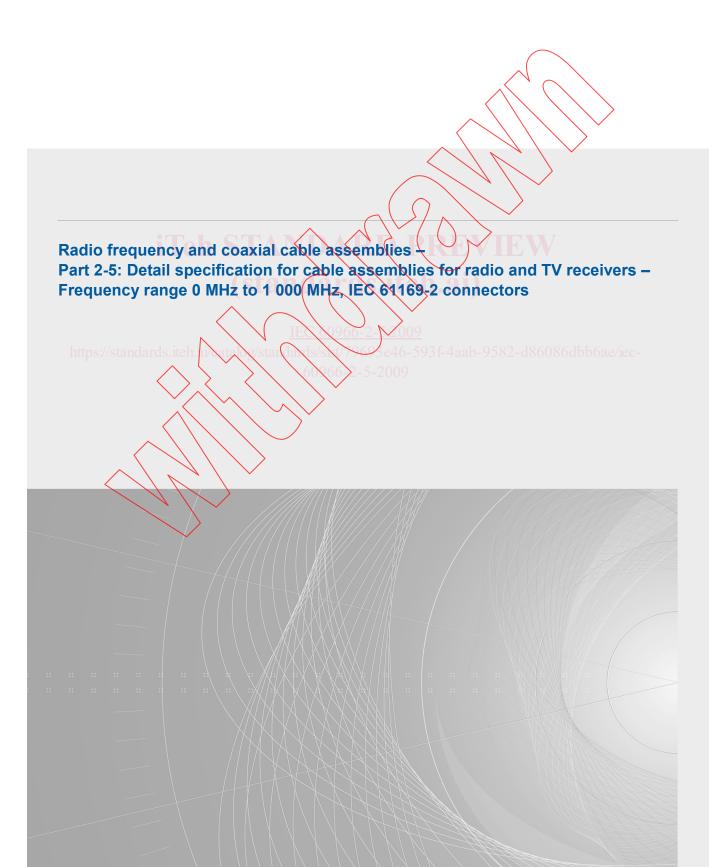


Edition 3.0 2009-01

INTERNATIONAL STANDARD





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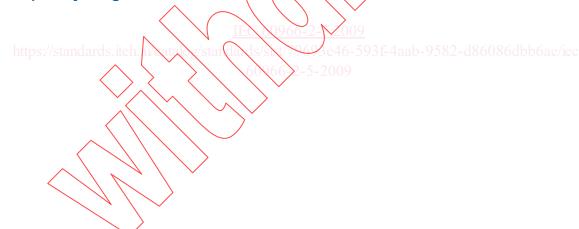
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Radio frequency and coaxial cable assemblies

Part 2-5: Detail specification for cable assemblies for radio and TV receivers – Frequency range 0 MHz to 1 000 MHz, JEC 61169-2 connectors



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RADIO FREQUENCY AND COAXIAL CABLE ASSEMBLIES -

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International Standard IEC 60966-2-5 has been prepared by 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, and constitutes a technical revision.

Main changes with respect to the second edition are the updating of references as well as the requirement for screening attenuation.

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

FDIS	Report on voting			
46/304/FDIS	46/316/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 detail specification is to be read with IEC 60966-1:1999, with IEC 60966-2-1:2008 and with IEC 60966-2-2:2003.

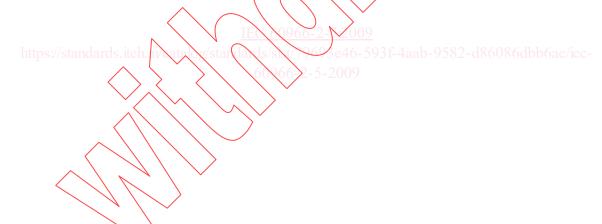
A list of all parts of the IEC 60966 series, under the general title: Radio frequency and coaxial cable assemblies, can be found on the IEC website.

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

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site 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- · withdrawn,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.

A bilingual version of this publication may be issued at a later date.



INTRODUCTION

This detail specification applies to flexible coaxial cables described in IEC 60096-2. It relates to cable assemblies for radio and TV receivers, and in particular to the cable assemblies subfamily 9,52. (IEC 61169-2).

This detail specification gives subfamily requirements and severities which shall be applied.

Under qualification approval, the qualification will be conducted in accordance with 12.2 of IEC 60966-2-1 taking into account the specified variants. Only the tests whose results might depend on the variants will be repeated.

Under capability approval, the qualification will be conducted on the relating CQCs as defined in 12.3 of IEC 60966-2-1 and described in the CM. Unless otherwise specified in the CM, only lot-by-lot tests from groups Ba and Eb will be conducted on delivered products, all other tests will be performed on CQCs as defined in 12.3 of IEC 60966-2-1 and described in the CM.

Reference documents

IEC 60966-1:1999, Radio frequency and coaxial cable assemblies – Part 1: Generic specification – General requirements and test methods

IEC 60966-2-1:2008, Radio frequency and coaxial cable assemblies – Part 2-1: Sectional specification for flexible coaxial cable assemblies

IEC 60966-2-2:2003, Radio frequency and coaxial cable assemblies – Part 2-2: Blank detail specification for flexible coaxial cable assemblies

IEC 61169-2, Radio-frequency connectors Part 2: Sectional specification – Radio frequency coaxial connectors of type 9,52

IEC 61196-6, Coaxial communication cables - Sectional specification for CATV drop cables

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

RADIO FREQUENCY AND COAXIAL CABLE ASSEMBLIES -

Part 2-5: Detail specification for cable assemblies for radio and TV receivers – Frequency range 0 MHz to 1 000 MHz, IEC 61169-2 connectors

IEC TC 46			cument No. 60966 ue: Third Issue te:	-2-5			
[3] Available from: IEC 3 rue de Varembé Genève Suisse	Secti	[4] Generic specification: IEC 60966-1 Sectional specification: IEC 60966-2-1 Blank detail specification: IEC 60966-2-2					
[5] Additional referenc	es:						
Detail specification for NOTE Example diagram			receivers	•			
Stan (arc) 16.6 mm (a) 5-2009							
[7] Characteristic impe	edance: 75 Ω	[8] Frequency rang	e: 0 MHz to 1 000 MH	łz			
[9] Weight: 40 g/m	+ 50 g (typically)		nding: 25 mm				
[9] Weight: 40 g/m		for static ber	nding: 25 mm	Ee, Mn			
		for static ber	nding: 25 mm bending: 75 mm	Ee, Mn			
[11] Climatic category:	40/70/21	for static ber for dynamic I	nding: 25 mm bending: 75 mm t group: Ba, Eb, Eh, E				
[11] Climatic category:	40/70/21 A	for static ber for dynamic I [12] Applicable test	nding: 25 mm bending: 75 mm t group: Ba, Eb, Eh, E	D			
[11] Climatic category:	40/70/21 A IEC 61169-2	for static ber for dynamic [12] Applicable test B IEC 61169-2	ding: 25 mm bending: 75 mm t group: Ba, Eb, Eh, E C IEC 61169-2	D IEC 61169-2			
[11] Climatic category:	A IEC 61169-2 Straight plug IEC 61196-6, IEC-75-yy	for static ber for dynamic [12] Applicable test B IEC 61169-2 Straight socket IEC 61196-6, IEC-75-yy	ding: 25 mm bending: 75 mm t group: Ba, Eb, Eh, E C IEC 61169-2 Right angle plug IEC 61196-6, IEC-75-yy	D IEC 61169-2 Right angle socket IEC 61196-6, IEC-75-yy			
[11] Climatic category: [13] Connector type Cable type	A IEC 61169-2 Straight plug IEC 61196-6, IEC-75-yy or equivalent Optional	for static ber for dynamic I [12] Applicable test B IEC 61169-2 Straight socket IEC 61196-6, IEC-75-yy or equivalent Optional	ding: 25 mm bending: 75 mm t group: Ba, Eb, Eh, E C IEC 61169-2 Right angle plug IEC 61196-6, IEC-75-yy or equivalent	D IEC 61169-2 Right angle socket IEC 61196-6, IEC-75-yy or equivalent			
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[16] Inspection values, ratings or characteristics	[17] Subclause ^a	[18] Value	[19] Remarks			
Electrical	,					
Reflection properties	8.1	>23 dB >16 dB >15 dB	5 MHz to 400 MHz >400 MHz to 862 MHz >862 MHz to 1 000 MHz			
Insertion loss	8.3	<0,08 dB + 0,4 dB/m	Up to 1 000 MHz			
Screening effectiveness:						
Transfer impedance Class A Class B	IEC 62153-4-3	$<$ 5 m Ω /m $<$ 15 m Ω /m	5 MHz to 30 MHz 5 MHz to 30 MHz			
Screening attenuation Class A Class B	8.9	>85 dB > 7 5 dB	30 MHz to 1 000 MHz			
Voltage proof	8.10	\$1,0(kV	50 Hz to 65 Hz peak value			
Insulation resistance	8.71	$>10^5 M\Omega$	Test voltage 500 V			
Inner conductor continuity	8.12	OK	Low voltage DC			
Outer conductor continuity	8.12	≤ 10 mΩ	After tensile test 9.1			
Mechanical						
Tensile mups://standards.iteh.hr atak	9.1	>45 N 36-4aa 2-5-2009	Interface OK Duration 1 min Test 8,12			
Flexure	9.2	500 cycles	Force 5 N 20/min Test 8.9			
Flexing endurance	9.3	20 cycles	Test 8.12 and 8.9			
Cable assembly crushing	9.4	>700 N	Test 8.3			
a The relevant standard could be the generic, the sectional or both of them.						

Recommended grouping of test		Recommended severity						
[20] Group	[21] Subclause ^a	Test	[22] Periodicity	[23] NC IL	[24] NQA AQL	[25]	[26] c	[27] Length of specimen
Ва	7.2	Visual inspection	lot by lot	S3	4.0			
	7.3	Dimensional inspection	lot by lot	S3	4.0			
Eh	8.1	Reflection properties	lot by lot	П	1.0			
	8.2	Insertion loss	lot by lot	II	1.0			
Eb	8.10	Voltage proof	lot by lot	II	1.0			
	8.11	Insulation resistance	lot by lot	П	1.0			>
	8.12	Inner and outer conductor continuity	lot by lot	111/	1.0			
Ee	8.9	Screening attenuation Transfer impedance	1 year			1	0	
Mn	9.1	Tensile	3 years		$\langle \rangle$	3	0	On a CQC
	9.2	Flexure	3 years / /					variant(e) 1
	9.3	Flexing endurance	3 years					I = 300 mm
	9.4	Cable assembly crushing	3 years	ai)				
a The rele	evant standard o	could be the generic, the sectional	or both of them					

