



All dimensions are in mm; tolerances according to ISO 2768 m-H

Interface

According to N side: IEC 60169-16, MIL-PRF-39012, CECC 22210
7/16 side: IEC 60169-4, VG 95250, EN 122190, DIN 47223

Documents

N/A

Material and plating

Connector parts

Center contact N side
Center contact 7/16 side
Outer contact
Body
Dielectric
Gasket

Material

Brass
Spring bronze
Brass
Brass
PP
Silicone

Plating

Silver, 3-6 μm
Silver, 3-6 μm
Flash white bronze over silver(e.g. Optargen®)
Flash white bronze over silver(e.g. Optargen®)

**ADAPTOR
N PLUG – 7/16 50 Ω JACK**

53S160-K50N1

Electrical data

Impedance	50 Ω	
Frequency	DC to 8.3 GHz	
Return loss	≥ 40 dB, DC to 2.5 GHz	
	≥ 36 dB, 2.5 to 4 GHz	
	≥ 25 dB, 4 to 8.3 GHz	
Insertion loss	≤ 0.05 dB	
Insulation resistance	≥ 5 x10 ³ MΩ	
Center contact resistance	≤ 1 mΩ, N side;	≤ 0.4 mΩ, 7/16 side
Outer contact resistance	≤ 0.25 mΩ, N side;	≤ 1.5 mΩ, 7/16 side
Test voltage	2500 V rms	
Working voltage	1400 V rms	
Power handling (at 20 °C, sea level, VSWR 1.0)	1000 W @ 1 GHz	
	700 W @ 2 GHz	
RF-leakage	≥ 128 dB up to 1 GHz	
Intermodulation (3 rd order)	≤ -117 dBm @ 2 x 20 W	

Mechanical data

	N side	7/16 side
Mating cycles	min. 500	min. 500
Coupling nut retention	≥ 450 N	N/A
Center contact captivation: axial	≥ 200 N	≥ 200 N
radial	≥ 3 Ncm	≥ 3 Ncm
Coupling test torque	max. 1.7 Nm	max. 35 Nm
Recommended torque	0.7 Nm to 1.1 Nm	25 to 30 Nm

Environmental data

Temperature range	-45°C to +85°C
Rapid change of temperature	IEC 60068-2-14 Test Na
Corrosion salt mist	IEC 60068-2-11 Test Ka
Vibration	IEC 60068-2-6 Test Fc
Shock	IEC 60068-2-27 Test Ea
Climatic class	IEC 60068-1 (45/85/56)
Cold	IEC 60068-2-1 Test A
Dry heat	IEC 60068-2-2 Test B
Damp heat (steady state)	IEC 60068-2-3 Test Ca
Degree of protection (mated pair)	IEC 60529, IP68
2002/95/EC (RoHS)	compliant

Tooling

N/A

Suitable cables

N/A

Packing

Standard	20 pcs in box
Weight	101.0 g/pce

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
Inge Mühlauer	08/06/04	Rong Fang	03/03/10	f00	10-0154	S_Krautenb.	03.03.10
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de					Tel.: +49 8684 18-0 Fax: +49 8684 18-499 email: info@rosenberger.de		Page 2 / 2