



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

**Interface**

According to N side: IEC 61169-16, MIL-PRF-39012, CECC 22210  
7/16 side: IEC 61169-4, EN 122190, DIN 47223

**Documents**

N/A

**Material and plating**

**Connector parts**

Center contact  
Outer contact  
Coupling nut  
Dielectric  
Gasket

**Material**

Brass  
Brass  
Brass  
PTFE  
Silicone

**Plating**

Silver, 3-6  $\mu\text{m}$   
Flash white bronze over silver(e.g. Optargen®)  
White bronze(e.g. Optalloy®)

**ADAPTOR  
N PLUG – 7/16 50 Ω PLUG**

**53S160-SIMN1**

**Electrical data**

Impedance	50 Ω	
Frequency	DC to 7.5 GHz	
Return loss	≥ 40 dB, DC to 2.5 GHz	
	≥ 36 dB, 2.5 to 4 GHz	
	≥ 25 dB, 4 to 7.5 GHz	
Insertion loss	≤ 0.05 dB	
Insulation resistance	≥ 5 x10 <sup>3</sup> 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
Working voltage	500 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 <sup>rd</sup> order)	≤ -130 dBm @ 2 x 20 W	

**Mechanical data**

	N side	7/16 side
Mating cycles	min. 500	min. 500
Coupling nut retention	≥ 450 N	≥ 1000 N
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
RoHS	compliant

**Weight**

Weight	80,3 g/pc
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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
Benjamin Kaindl	15.03.12	J_Gramsamer	20.04.15	300	15-0397	J_Krautenb.	20.04.15
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