

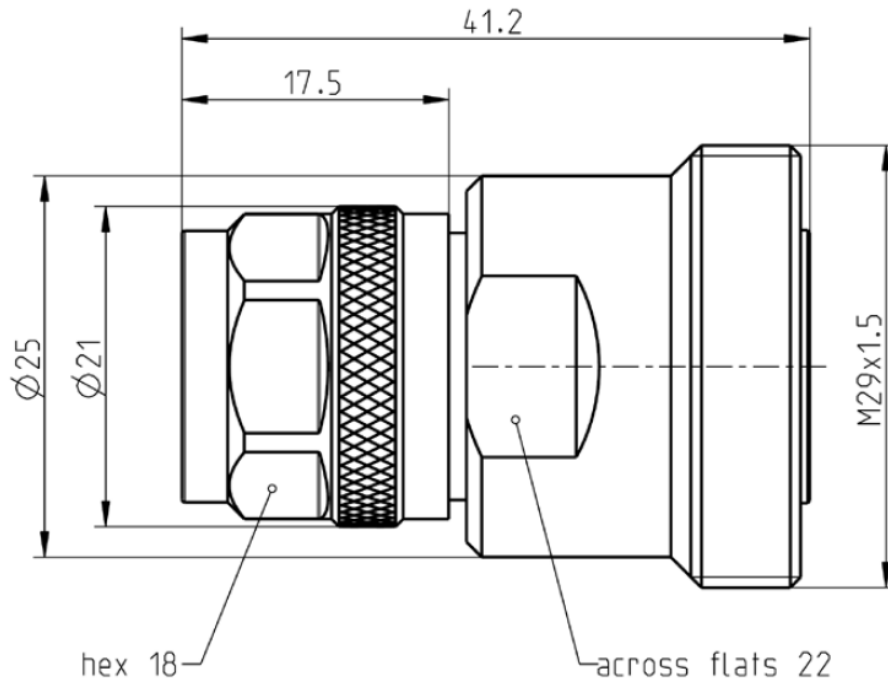
Technical Data Sheet

Rosenberger
Rosenberger Site Solutions, LLC

7-16/N

Adaptor
7/16 Jack – N Plug

53S160-S50N1



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

Material and plating

Connector parts

Center contact
Outer contact
Dielectric
Gasket

Material

Spring bronze
Brass
PTFE
Silicone

Plating

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

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Electrical data

Impedance	50 Ω
Frequency	DC to 8.3 GHz
Return loss	≥ 30 dB @ DC to 3 GHz ≥ 27 dB @ 3 GHz to 7 GHz ≥ 23 dB @ 7 GHz to 8.3 GHz
Insertion loss	$\leq 0.05 \times \sqrt{f}$ [GHz] dB
Insulation resistance	≥ 10 G Ω
Center contact resistance	≤ 0.4 m Ω
Outer contact resistance	≤ 1.5 m Ω
Test voltage (at sea level)	2500 V rms
Working voltage (at sea level)	1400 V rms
Power handling (at 20 °C, sea level, VSWR 1.0)	1400 W @ 1 GHz 700 W @ 2 GHz
RF-leakage	≥ 128 dB @ DC to 1 GHz
Intermodulation (3 rd order)	≤ -128 dBm @ 2 x 20 W

Mechanical data

	N side	7/16 side
Mating cycles	≥ 500	≥ 500
Coupling nut retention	≥ 450	N/A
Center contact captivation: axial	≥ 200 N	≥ 200 N
radial	≥ 2 Ncm	≥ 2 Ncm
Coupling torque (recommended)	0.7 to 1.1 Nm	25 to 30 Nm
Proof torque	≤ 1.7 Nm	≤ 35 Nm

Environmental data

Temperature range	-55 °C to +155 °C
Thermal shock	MIL-STD-202, Method 107, Condition B
Corrosion resistance	MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition B
Shock	MIL-STD-202, Method 213, Condition I
Moisture resistance	MIL-STD-202, Method 106
Degree of protection (mated pair)	IEC 60529, IP68 2.5 bar 1 h
RoHS	compliant

Weight

Weight	80.3 g/pce
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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	Sa. Krautenbacher	19.03.14	600	14-0352	T. Krojer	19.03.14
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