



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

**Interface**

According to IEC 60169-16, MIL-PRF-39012, CECC 22210

**Documents**

Assembly instruction 60 118

**Material and plating**

**Connector parts**

Center contact  
Outer contact  
Body  
Dielectric  
Gasket

**Material**

Spring bronze  
Brass  
Brass  
PTFE  
Silicone

**Plating**

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

N 50 Ω STRAIGHT PLUG  
(1/2"R)

53S115-C03N1

**Electrical data**

Impedance	50 Ω
Frequency	DC to 11 GHz
Return loss	≥ 35 dB, DC to 1 GHz ≥ 30 dB, 1 to 2.7 GHz
Insertion loss	≤ 0.05 dB, DC to 2.7 GHz
Insulation resistance	≥ 5 x10 <sup>3</sup> MΩ
Center contact resistance	≤ 1 mΩ
Outer contact resistance	≤ 0.25 mΩ
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 <sup>rd</sup> order)	≤ -117 dBm @ 2 x 20 W

*- Limitations are possible due to the used cable type -*

**Mechanical data**

Mating cycles	min. 500
Coupling nut retention	≥ 450 N
Center contact captivation: axial	≥ 28 N
radial	≥ 3 Ncm
Coupling test torque	max. 1.7 Nm
Recommended torque	0.7 Nm to 1.1 Nm

**Environmental data**

Temperature range	-45°C to +85°C
Thermal shock	MIL-STD-202, Meth. 107, Cond. B
Corrosion	MIL-STD-202, Meth. 101, Cond. B
Vibration	MIL-STD-202, Meth. 204, Cond. B
Shock	MIL-STD-202, Meth. 213, Cond. I
Moisture resistance	MIL-STD-202, Meth. 106
Degree of protection (mated pair)	IEC 60529, IP68 2.5 bar
2002/95/EC (RoHS)	compliant

**Tooling**

N/A

**Suitable cables**

Leoni Flexline 1/2" R (recommended)  
Andrew LDF 4-50A  
RFS LCF 12-50

**Packing**

Standard	1 pce in bag
Weight	121,4 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
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