



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 60 138

**Material and plating**

**Connector parts**

Center contact  
Outer contact  
Body  
Dielectric  
Gasket

**Material**

Brass  
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 RIGHT ANGLE PLUG  
(1/2" S)

53S217-C08N1

**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**

SL 012S (recommended)  
 Leoni Flexline 1/2" S; Andrew FSJ 4-50; RFS SCF 12-50

**Packing**

Standard 1 pce in bag  
 Weight 125.5 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     |
|----------|----------|-----------|----------|------|---------------------------|----------------|----------|
| H.Schütt | 12/08/09 | H. Schütt | 08/01/10 | 300  | 10-v008                   | Vitzthum Chr.r | 08/01/10 |

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