



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

**Interface**

According to IEC 61169-16, MIL-PRF-39012, CECC 22210

**Documents**

Assembly instruction MA\_1C7-C03

**Material and plating**

**Connector parts**

- Center contact (interface side)
- Center contact (cable side)
- Outer contact
- Back nut
- Dielectric
- Gasket

**Material**

- Spring bronze
- Spring bronze
- Brass
- Brass
- PTFE&POM
- Silicone&EPDM

**Plating**

- Silver, 3-6 μm
- Silver, 3-6 μm
- Flash white bronze over silver(e.g. Optargen®)
- Nickel, 2.5-5 μm

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RF\_35/09\_14/6.2

N 50 Ω

RIGHT ANGLE PLUG  
(1/2"R)

**53S2C7-C03N1**

**Electrical data**

Impedance 50 Ω  
 Frequency DC to 11 GHz  
 Return loss ≥ 35 dB, DC to 1 GHz  
 ≥ 30 dB, 1 GHz to 2.7 GHz  
 Insertion loss ≤ 0.05 dB  
 Insulation resistance ≥ 5 GΩ  
 Center contact resistance ≤ 1 mΩ  
 Outer contact resistance ≤ 0.25 mΩ  
 Working voltage (at sea level) 500 V rms  
 Power handling (at 20 °C, sea level, VSWR 1.0) 1000 W @ 1 GHz  
 700 W @ 2 GHz  
 Intermodulation 3<sup>rd</sup> order ≥ 159 dBc (2 x 43 dBm)

- Limitations are possible due to the used cable type -

**Mechanical data**

Mating cycles ≥ 500  
 Coupling nut retention ≥ 450N  
 Center contact captivation: axial ≥ 28 N  
 radial ≥ 3 Ncm  
 Coupling test torque ≤ 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, 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  
 2002/95/EC (RoHS) compliant

**Tooling**

60W110-C03

**Suitable cables**

SL 012R Series (Recommend)

**Packing**

Standard 1 pce in box  
 Weight 111.5 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
ZhaiQK	20/05/09	heanyang	27/07/16	d	15-0397	Songxianglong	27/07/16
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