



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
Outer contact
Back nut
Dielectric
Gasket

Material

Spring bronze
Brass
Brass
TPX&POM
Silicone&EPDM

Plating

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

N 50 Ω

STRAIGHT PLUG
(1/2"R)

53S1C7-C03N1

Electrical data

Impedance	50 Ω
Frequency	DC to 11 GHz
Return loss	≥ 35 dB @ DC to 1 GHz ≥ 32 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 rd 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 bag
Weight	62.5 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
Roger	12/05/09	heanyang	27/07/16	e	15-0397	Songxianglong	27/07/16
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