



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

Plating

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

N 50 Ω

STRAIGHT JACK
(1/2"R)

53K1C7-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
	≥ 28 dB @ 2.7 GHz to 3.8 GHz
	≥ 23 dB @ 3.8 GHz to 6 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
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	64.6 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	29/07/19	f00	19-s001	Liubinke	29/07/19
Rosenberger Hochfrequenztechnik GmbH & Co. KG, Germany Tel.: +49 8684 18-0 Fax: +49 8684 18-499 www.rosenberger.de email: info@rosenberger.de				Rosenberger Asia Pacific Electronic Co., Ltd., China Tel.: +86 10 80481995 Fax: +86 10 80497052 www.rosenbergerap.com email:info@rosenbergerap.com			Page 2 / 2