



1) restricted connection dimension

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

**Interface**

RPC-3.50 according to  
RPC-3.50 mechanically compatible with  
RPC-7 according to

IEC 60169-23  
RPC-2.92 and SMA  
IEC 457-2

**Documents**

N/A

**Material and plating**

**Connector parts**

Center contact  
Outer contact RPC-3.50  
Outer contact RPC-7  
Coupling nut  
Dielectric

**Material**

Beryllium copper  
Stainless steel  
Beryllium copper  
Stainless steel  
PPE/PTFE

**Plating**

Gold, min. 1.27  $\mu\text{m}$ , over chemical nickel  
Passivated  
Gold, min. 1.27  $\mu\text{m}$ , over chemical nickel  
Passivated

**Electrical data**

Impedance	50 Ω
Frequency	DC to 18 GHz
Return loss	≥ 28 dB, DC to 18 GHz
Insertion loss	≤ 0.04 x √f(GHz) dB
Insulation resistance	≥ 5 GΩ
Center contact resistance RPC-3.50	≤ 3.0 mΩ
Outer contact resistance RPC-3.50	≤ 2.0 mΩ
Center contact resistance RPC-7	≤ 1.0 mΩ
Outer contact resistance RPC-7	≤ 0.1 mΩ
Test voltage	1000 V rms
Working voltage	335 V rms
RF-leakage	≥ 100 dB up to 1 GHz

**Mechanical data**

Mating cycles RPC-3.50	≥ 500
Mating cycles RPC-7	≥ 5000
Center contact captivation	≥ 28 N
Coupling test torque RPC-3.50	1.70 Nm
Recommended torque RPC-3.50	0.80 Nm to 1.10 Nm
Coupling test torque RPC-7	1.95 Nm
Recommended torque RPC-7	1.36 Nm
Recommended torque ruggedized nut	1.36 Nm

**Environmental data**

Temperature range	-40°C to +85°C
Thermal shock	MIL-STD-202, Method 107, Condition B
Corrosion	MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition D
Shock	MIL-STD-202, Method 213, Condition I
Moisture resistance 2002/95/EC (RoHS)	MIL-STD-202, Method 106 compliant

**Tooling**

N/A

**Suitable cables**

N/A

**Packing**

Standard	1 pce in box
Weight	79.9 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
Martin Moder	10/08/10	H. Babinger	26/05/11	a00	10-0825	T. Oberhauser	26/05/11
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany <a href="http://www.rosenberger.de">www.rosenberger.de</a>					Tel.: +49 8684 18-0 Fax: +49 8684 18-499 email: <a href="mailto:info@rosenberger.de">info@rosenberger.de</a>		Page 2 / 2