



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

Interface

RPC-1.85 according to
RPC-1.85 mechanically compatible with
MINI-SMP according to

IEC 61169-32
RPC-2.40
MIL-STD-348A, Fig. 328
Mateable with GPPO™ (Gilbert Engineering Co., Inc.)
and SSMP™ (Connectors Devices, Inc.)

Documents

N/A

Material and plating

Connector parts

Center contact
Outer contact
Dielectric

Material

Beryllium copper
Stainless steel
PEEK

Plating

Gold, min. 1.27 µm, over chemical nickel
Passivated

**ADAPTOR
RPC-1.85 JACK – MINI-SMP PLUG****08K118-S00S3****Electrical data**

Impedance	50 Ω
Frequency	DC to 65 GHz
Return loss	≥ 30 dB, DC to 12 GHz ≥ 18 dB, 12 GHz to 50 GHz ≥ 15 dB, 50 GHz to 65 GHz
Insertion loss	≤ 0.05 x $\sqrt{f(\text{GHz})}$ dB
Insulation resistance	≥ 5 GΩ
Center contact resistance RPC-1.85	≤ 4.0 mΩ
Outer contact resistance RPC-1.85	≤ 2.5 mΩ
Center contact resistance MINI-SMP	≤ 6.0 mΩ
Outer contact resistance MINI-SMP	≤ 2.0 mΩ
Test voltage	500 V rms
Working voltage	150 V rms

Mechanical data

Mating cycles RPC-1.85	≥ 500
Mating cycles MINI-SMP	
- full detent	≥ 100
Center contact captivation	≥ 20 N
Coupling test torque RPC-1.85	1.65 Nm
Recommended torque RPC-1.85	0.80 Nm to 1.10 Nm
Engagement force MINI-SMP	
- full detent	19 N max.
Disengagement force MINI-SMP	
- full detent	29 N max.

Environmental data

Temperature range	-40°C to +85°C
Thermal shock	IEC 61169-1, Subclause 9.4.4
Corrosion	IEC 61169-1, Subclause 9.4.6
Vibration	IEC 61169-1, Subclause 9.3.3
Shock	IEC 61169-1, Subclause 9.3.14
Moisture resistance	IEC 61169-1, Subclause 9.4.3
2002/95/EC (RoHS)	compliant

Tooling

N/A

Suitable cables

N/A

Packing

Standard	1 pce in box
Weight	6.4 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
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