



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-348
Mateable with GPPO™ (Gilbert Engineering Co., Inc.)
and SSMP™ (Connectors Devices, Inc.)

Documents

N/A

Material and plating

Connector parts

Center contact
Outer contact RPC-1.85
Outer contact Mini-SMP
Coupling Nut
Dielectric

Material

CuBe
Stainless steel
CuBe
Stainless steel
PEEK

Plating

Gold, min. 1.27 µm, over chemical nickel
Passivated
Gold, min. 0.8 µm, over chemical nickel
Passivated

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RF_35/09;14/6.2

Adaptor
RPC-1.85 plug – Mini-SMP jack

08S118-K00S3

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 √f(GHz) dB
 Insulation resistance ≥ 5 GΩ
 Test voltage (at sea level) 500 V rms
 Working voltage (at sea level) 150 V rms

Mechanical data

Mating cycles RPC-1.85 ≥ 500
 Mating cycles Mini-SMP
 if mating part is Smooth bore ≥ 500
 if mating part is 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
 - Smooth bore 11 N typical
 - Full detent 19 N typical
 Disengagement force Mini-SMP
 - Smooth bore 11 N typical
 - Full detent 29 N typical

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
 RoHS compliant

Tooling

N/A

Suitable cables

N/A

Weight

5.6 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
Herbert Babinger	05.01.05	F. Reiner	20.06.18	b01	18-1026	M.Ruf	20.06.18

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