



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

Interface

According to IEC 61169-31

Documents

PCB layout MB 389
 Handling Instruction HI_016

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RF_35/05.10/6.0

Technical Data Sheet

Rosenberger

RPC-1.00

SMD Connector jack

01K80A-40ML5

Material and plating

Connector parts

Center contact
Outer contact PCB side
Outer contact RPC-1.00 side
Dielectric

Material

CuBe
CuBe or equiv.
CuBe or equiv.
PEEK

Plating

AuroDur®, gold plated
AuroDur®, gold plated
AuroDur®, gold plated

Electrical data

Impedance 50 Ω
Frequency DC to 110 GHz
Return loss ≥ 21 dB, DC to 26.5 GHz
≥ 19 dB, 26.5 GHz to 40 GHz
≥ 17 dB, 40 GHz to 70 GHz
≥ 12 dB, 70 GHz to 100 GHz
≥ 10 dB, 100 GHz to 110 GHz
Insertion loss ≤ 0.05 x √f(GHz) dB
Insulation resistance ≥ 5 GΩ
Test voltage 500 V rms
Working voltage 150 V rms

- Return loss in application depends decisive on PCB layout -

Mechanical data

Mating cycles PCB side ≥ 300
Mating cycles RPC-1.00 side ≥ 500
Center contact captivation ≥ 10 N
Coupling test torque RPC-1.00 0.70 Nm
Recommended torque RPC-1.00 0.30 Nm to 0.41 Nm
Recommended torque Allen screw 1.5 0.20 Nm to 0.30 Nm
PCB thickness max.¹ 1.5 mm typical; dimension expandable with longer screws

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
Max. soldering temperature N/A (connector is only screwed on, not soldered)
RoHS compliant

Tooling

Allen wrench 1.5 mm

Packing

Standard 1 pce in box
25 pcs in blister
Weight 5.3 g/pce

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