



Remove transport lock before use.

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.<sup>1</sup> 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

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.

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