



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

**Interface**

According to IEC 61169-32  
Mechanically compatible with RPC-2.40

**Documents**

PCB layout LR\_20-0153  
Handling Instruction HI\_016

RPC-1.85 SMD Connector jack

**08K80E-40ML5**

**Material and plating**

**Connector parts**

Center contact  
Outer contact PCB side  
Outer contact RPC-1.85 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 70 GHz  
Return loss ≥ 21 dB, DC to 26.5 GHz  
≥ 19 dB, 26.5 GHz to 40 GHz  
≥ 17 dB, 40 GHz to 60 GHz  
≥ 14 dB, 60 GHz to 70 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-1.85 side ≥ 500  
Coupling test torque RPC-1.85 1.65 Nm  
Recommended torque RPC-1.85 0.80 Nm to 1.10 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

**Weight**

3.6 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
H. Babinger	18.09.20	Florian Reiner	07.11.22	a00	22-s229	T. Börgerding	07.11.22