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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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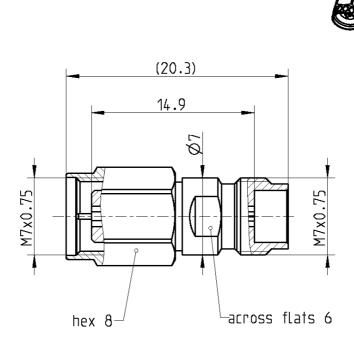
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| Technical Data Sheet | | Rosenberger | | |
|----------------------|---------------------|-------------|--|--|
| RPC-1.85 | Airline Plug / Jack | 08S101-K014 | | |



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

Interface

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

Documents

Application note

AN001 "Calibration Services"

Material and plating Connector parts

Center conductor Outer conductor Coupling nut

Material

CuBe Gold, min. 1.27 µm, over chemical nickel Gold, min. 1.27 µm, over chemical nickel **Brass Passivated** Stainless steel

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Technical Data Sheet

Rosenberger

RPC-1.85

Airline Plug / Jack

08S101-K014

Electrical data

Insertion loss

≤ 0.22 dB at 70 GHz

Mechanical data

Mating cycles≥ 500Maximum torque1.65 NmRecommended torque0.90 Nm

Airline dimensions at 23 °C:
- Diameter outer conductor
- Diameter inner conductor

Length outer conductorLength inner conductorLength difference

(outer conductor – inner conductor)

1.850 mm ± 0.005 mm

0.803 mm ± 0.005 mm 14.90 mm + 0.02 mm 14.90 mm - 0.02 mm

≤ 0.04 mm

Calculated data (non warranted)

Lossless characteristic impedance Return loss² 50 Ω ± 1.00 Ω ≥ 34 dB, 0.5 GHz to 4 GHz ≥ 26 dB, 4 GHz to 40 GHz ≥ 24 dB, 40 GHz to 70 GHz

- 1. The lossless characteristic impedance is calculated from the specified diameters of the inner and outer conductor.
- 2. The return loss is calculated from the characteristic impedance, the skin depth and the connector interface.

General standard definitions

For proper work the vector network analyzer (VNA) used needs a model describing the electrical behaviour of this calibration standard. Depending on the VNA type different models, units and terms are used and have to be entered into the VNA. All values are based on typical geometry and plating.

49.7505 ps

14.915 mm

 $3.90~G\Omega/s$

Offset Z_o / Impedance / Z_o
 Offset Delay
 Length (electrical) / Offset Length
 Offset Loss

- Loss 0.0169 dB/√GHz

Environmental data

Operating temperature range³ Storage temperature range RoHS

+20 °C to +26 °C 0 °C to +50 °C compliant

This range is a recommendation. However, the airline can be used in a wider range.
 Any temperature change from 23 °C results in dimensional changes.

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Technical Data Sheet Rosenberger

RPC-1.85 | Airline Plug / Jack

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Declaration of calibration options

Factory Calibration

Standard delivery for this calibration standard includes a Factory Calibration. The Calibration Certificate issued reports individual mechanical calibration results, traceable to national / international standards. Model based standard definitions are reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format.

Accredited Calibration

Not available.

For further, more detailed information see application note AN001 on the Rosenberger homepage.

Calibration interval

Recommendation

12 months

Packing

Standard Weight

Center conductor

1 pce in box 4.9 g/pce

loose in an acrylic glass tube

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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|--------------------------|--------------|----------|-----|---------|------------------|----------|
| Herbert Babinger 26.08.0 | Martin Moder | 24.03.15 | f00 | 14-1492 | Herbert Babinger | 24.03.15 |

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