



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

Interface

According to IEC 60169-23
Mechanically compatible with RPC-2.92 and SMA

Documents

Application note AN001 "Calibration Services"

Documentation

This Part is delivered with:

- **USB Stick**
with S2p data file of the reference measurement values. Calibration Certificate as PDF file.
- **Calibration Certificate**
Details see "Declaration of calibration" options.

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RF_35/09.14/6.2

RPC-3.50

Mismatch Airline
Plug / Jack

03S102-K100

Material and plating

Connector parts

Center conductor
Outer conductor
Coupling nut

Material

CuBe
Brass
Stainless steel

Plating

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

Mechanical data

Mating cycles ≥ 500
Maximum torque 1.70 Nm
Recommended torque 0.90 Nm
Nominal Airline dimensions at 23 °C:
- Diameter outer conductor 3.500 mm
- Diameter inner conductor 50 Ω section 1.520 mm
- Diameter inner conductor 25 Ω section 2.307 mm
- Length outer conductor 100.00 mm
- Length inner conductor 100.00 mm
- Length difference ≤ 0.04 mm
(outer conductor – inner conductor)
- Length 25 Ω section 75.00 mm

Electrical verification standard

This Mismatch Airline is designed as an electrical verification standard. Reference measurement values (calibration results) for transmission and reflection are included. Connected to a calibrated VNA the actual measured transmission and reflection values can be compared to the reference measurement values and the quality of the VNA calibration can be evaluated.

Environmental data

Operating temperature range¹ +20 °C to +26 °C
Storage temperature range 0 °C to +50 °C
RoHS compliant

1. This range is a recommendation. However, the mismatch 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-3.50

Mismatch Airline
Plug / Jack

03S102-K100

Declaration of calibration options

Factory Calibration

Standard delivery for this calibration standard includes a Factory Calibration. The Calibration Certificate issued reports individual calibration results. Reflection results are traceable to national / international standards. A S2p data file with the reference measurement values is included.

Accredited Calibration

Not available.

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

Calibration interval

Recommendation 12 months

Packing

Standard 1 pce in box
Weight 20.1 g/pce
Center conductor 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.

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
Herbert Babinger	17.04.15	Martin Moder	09.11.15	e00	15-1558	Manfred Ruf	09.11.15

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