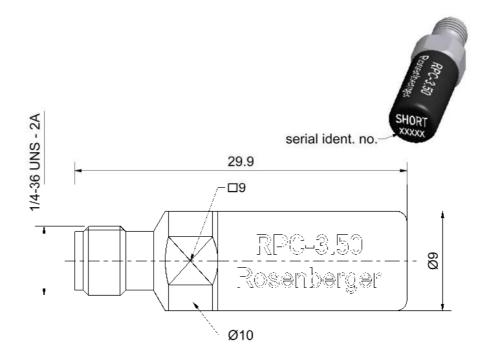
Technical Data Sheet		Rosenberger		
RPC-3.50	Short Circuit Jack	03K12S-000S3		



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

Interface

According to Mechanically compatible with

IEC 60169-23 RPC-2.92 and SMA

Documents

Application note

AN001 "Calibration Services"

Material and plating

Connector parts
Center conductor
Outer conductor

Material Plating

CuBe Gold, min. 1.27 µm, over nickel

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Stainless steel Passivated

Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de

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Technical Data Sheet Rosenberger

RPC-3.50

Short Circuit Jack

03K12S-000S3

Electrical data

Frequency range DC to 26.5 GHz

Return loss \leq 0.10 dB, DC to 4 GHz \leq 0.12 dB, 4 GHz to 8 GHz

≤ 0.12 dB, 4 GHz to 8 GHz ≤ 0.20 dB, 8 GHz to 26.5 GHz

Error from nominal phase¹ $\leq 1.0^{\circ}$, DC to 4 GHz

≤ 1.5°, 4 GHz to 8 GHz ≤ 2.0°, 8 GHz to 26.5 GHz

Mechanical data

 $\begin{array}{ll} \text{Mating cycles} & \geq 500 \\ \text{Maximum torque} & 1.70 \text{ Nm} \\ \text{Recommended torque} & 0.90 \text{ Nm} \\ \end{array}$

Gauge 0.00 mm to 0.04 mm

General standard definitions

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

 $\begin{array}{ll} \text{Offset Z}_{\circ} \, / \, \text{Impedance} \, / \, \text{Z}_{\circ} & 50 \,\, \Omega \\ \text{Offset Delay} & 26.0180 \,\, \text{ps} \\ \text{Length (electrical)} \, / \, \text{Offset Length} & 7.80 \,\, \text{mm} \\ \text{Offset Loss} & 2.36 \,\, \text{G}\Omega/\text{s} \\ \text{Loss} & 0.0107 \,\, \text{dB}/\sqrt{\text{GHz}} \end{array}$

Short Inductance²

Environmental data

Operating temperature range 3 +20 °C to +26 °C Rated temperature range of use 4 0 °C to +50 °C Storage temperature range -40 °C to +85 °C

RoHS compliant

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¹ The nominal phase is defined by the Offset Delay, the Offset Loss and the Short Inductance.

² Short Inductances are determined individually for each Short circuit and are documented in a Calibration Certificate.

³ Temperature range over which these specification are valid.

This range is underneath and above the operating temperature range, within the short circuit is fully functional and could be used without damage.

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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 calibration results, traceable to national / international standards. Model based standard definitions are individually optimized and reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format.

Accredited Calibration

Optional this calibration standard can be delivered with an Accredited Calibration (DAkkS) having the highest confidence in the traceability. The DAkkS Calibration Certificate issued reports individual calibration results in a complex format, traceable to national / international standards. Model based standard definitions are individually optimized and reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format as well as in a dense data set needed for data based standard definitions. The uncertainties are smaller than in a Factory Calibration.

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	6.7 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
Herbert Babinger	17.10.14	Markus Müller	17.10.16	i00	16-1390	Marion Striegler	17.10.16

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