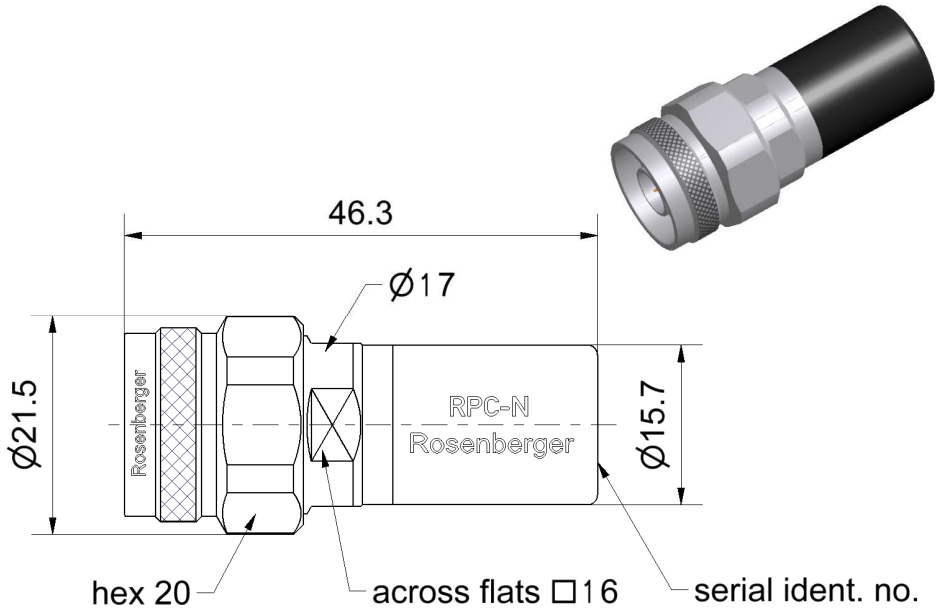
Technical Data Sheet		Rosenberger
RPC-N 50 Ω	Short Circuit Plug	**05S12S-000S3**



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

Interface

According to	IEC 61169-16

Documents

Application note	AN001 “Calibration Services”

Material and plating

Connector parts	**Material**	**Plating**
Center conductor	CuBe	Gold, min. 1.27 µm, over nickel
Outer conductor	Stainless steel	Passivated
Coupling nut	Stainless steel	Passivated

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Electrical data

Frequency range	DC to 18 GHz
Return loss	≤ 0.10 dB, DC to 4 GHz
	≤ 0.12 dB, 4 GHz to 8 GHz
	≤ 0.15 dB, 8 GHz to 18 GHz
Error from nominal phase[1]	≤ 1.2°, DC to 4 GHz
	≤ 1.5°, 4 GHz to 8 GHz
	≤ 2.5°, 8 GHz to 18 GHz

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

Mechanical data

Mating cycles	≥ 500
Maximum torque	1.70 Nm
Recommended torque	1.10 Nm
Gauge	5.28 mm to 5.32 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.

Offset Z_o / Impedance / Z_o	50 Ω
Offset Delay	50.3682 ps
Length (electrical) / Offset Length	15.10 mm
Offset Loss	0.80 GΩ/s
Loss	0.0070 dB/ $\sqrt{\text{GHz}}$
Short Inductance[2]	

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

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

[3] Temperature range over which these specification are valid.
[4] 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	45.8 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
Herbert Babinger	28.07.04	Markus Müller	21.03.18

Rev.	Engineering change number	Name	Date
i00	18-0511	Marion Striegler	21.03.18

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