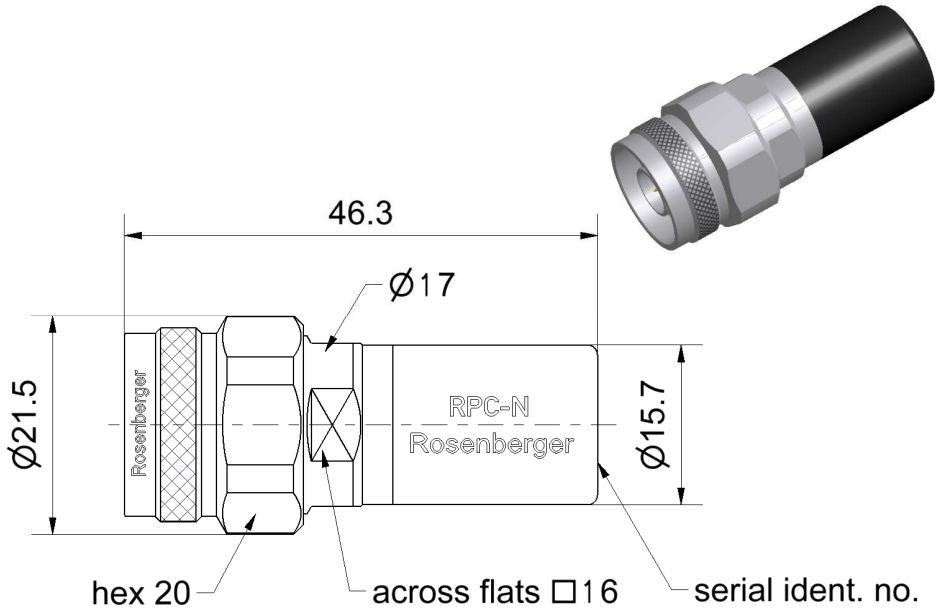
Technical Data Sheet		Rosenberger
RPC-N 50 Ω	Short Circuit Plug	**05S12S-000S3**



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

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

Tel. : +49 8684 18-0
Email : info@rosenberger.de

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.

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

Tel. : +49 8684 18-0
Email : info@rosenberger.de