



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

Interface

According to IEC 61169-35
Mechanically compatible with RPC-3.50 and SMA

Documents

Application note AN001 "Calibration Services"

Material and plating

Connector parts
Center conductor
Outer conductor

Material
CuBe
Brass

Plating
Gold, min. 1.27 µm, over nickel
Gold, min. 1.27 µm, over nickel

Dieses Dokument ist urheberrechtlich geschützt • This document is protected by copyright • Rosenberger Hochfrequenztechnik GmbH & Co. KG

RF_35/09;14/6.2

Electrical data

Frequency range	DC to 40 GHz
Return loss	≤ 0.10 dB, DC to 4 GHz
	≤ 0.15 dB, 4 GHz to 18 GHz
	≤ 0.20 dB, 18 GHz to 40 GHz
Error from nominal phase ¹	≤ 1.0°, DC to 4 GHz
	≤ 2.0°, 4 GHz to 18 GHz
	≤ 3.0°, 18 GHz to 40 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	0.90 Nm
Gauge	0.00 mm to 0.03 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	16.6782 ps
Length (electrical) / Offset Length	5.00 mm
Offset Loss	2.40 G Ω /s
Loss	0.0069 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.

Dieses Dokument ist urheberrechtlich geschützt • This document is protected by copyright • Rosenberger Hochfrequenztechnik GmbH & Co. KG

RF_35/09;14/6.2