



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

**Interface**

According to  
Mechanically compatible with

IEC 61169-35  
RPC-3.50 and SMA

**Documents**

Application note

AN001 "Calibration Services"

**Material and plating**

**Connector parts**

Center conductor  
Outer conductor

**Material**

CuBe  
Stainless steel

**Plating**

Gold, min. 1.27 µm, over nickel  
Passivated

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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 <sup>1</sup>	≤ 1.0°, DC to 4 GHz
	≤ 2.0°, 4 GHz to 18 GHz
	≤ 3.0°, 18 GHz to 40 GHz

<sup>1</sup> 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 $\Omega$
Offset Delay	28.3529 ps
Length (electrical) / Offset Length	8.50 mm
Offset Loss	2.40 G $\Omega$ /s
Loss	0.0118 dB/ $\sqrt{\text{GHz}}$
Short Inductance <sup>2</sup>	

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

**Environmental data**

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

RoHS compliant

<sup>3</sup> Temperature range over which these specification are valid.

<sup>4</sup> This range is underneath and above the operating temperature range, within the short circuit is fully functional and could be used without damage.