



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

**Interface**

According to Rosenberger P-SMP

**Documents**

Application note AN001 "Calibration Services"

**Material and plating**

**Connector parts**

Center conductor  
Outer conductor

**Material**

CuBe  
CuBe

**Plating**

Gold, min. 1.27 µm, over nickel  
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RF\_35/09;14/6.2

**Electrical data**

Frequency range	DC to 10 GHz
Return loss	≤ 0.15 dB, DC to 4 GHz ≤ 0.25 dB, 4 GHz to 10 GHz
Error from nominal phase <sup>1</sup>	≤ 2°, DC to 4 GHz ≤ 4°, 4 GHz to 10 GHz

<sup>1</sup> The nominal phase is defined by the Offset Delay, the Offset Loss and the Short Inductance

**Mechanical data**

Mating cycles	
- if mating part is Smooth bore, Catchers mitt	≥ 1000
- if mating part is Limited detent	≥ 500
- if mating part is Full detent	≥ 100
Engagement force	
- Smooth bore, Catchers mitt	≤ 10 N
- Limited detent	≤ 45 N
- Full detent	≤ 68 N
Disengagement force	
- Smooth bore, Catchers mitt	≥ 2.2 N
- Limited detent	≥ 15 N
- Full detent	≥ 25 N
Gauge	0.00 mm to 0.05 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 $Z_0$ / Impedance / $Z_0$	50 Ω
Offset Delay	26.018 ps
Length (electrical) / Offset Length	7.80 mm
Offset Loss	2.36 GΩ/s
Loss	0.0107 dB/√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.

**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 Rosenberger standards**, national / international standards are not available. Model based standard definitions are individually optimized and reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format.

**Accredited Calibration**

Not available.

*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 6.1 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
O. Krautenbacher	19.11.12	Markus Müller	11.10.16	d00	16-1390	Marion Striegler	11.10.16

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