



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

**Interface**

According to

MIL-STD-348

Mateable with GPPO™ (Gilbert Engineering Co., Inc.)  
and SSMP™ (Connectors Devices, Inc.)

**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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**Electrical data**

Frequency range	DC to 40 GHz
Return loss	≤ 0.40 dB, DC to 18 GHz
	≤ 0.50 dB, 18 GHz to 40 GHz
Error from nominal phase <sup>1</sup>	≤ 5.0°, DC to 18 GHz
	≤ 10.0°, 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	
if mating part is Smooth bore	≥ 500
if mating part is Full detent	≥ 100
Engagement force	
- Smooth bore	11 N typical
- Full detent	19 N typical
Disengagement force	
- Smooth bore	11 N typical
- Full detent	29 N typical
Gauge	0.00 mm to 0.08 mm

**General standard definition**

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	13.9430 ps
Length (electrical) / Offset Length	4.18 mm
Offset Loss	4.17 G $\Omega$ /s
Loss	0.0101 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.

**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 5.5 g/pce

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RF\_35/09.14/6.2

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							Page 3 / 3