



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

**Interface**

RPC-3.50 side	IEC 60169-23
According to	RPC-2.92 and SMA
Mechanically compatible with	
SMB Fakra side	DIN 72594-1
According to	

**Documents**

Application note	AN001 "Calibration Services"
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**Material and plating**

**Connector parts**

Center conductor  
Outer conductor RPC-3.50  
Outer conductor SMB Fakra  
Dielectric RPC-3.50  
Dielectric SMB Fakra  
Coupling nut RPC-3.50  
Locking ring SMB Fakra  
Housing SMB Fakra  
Secondary Lock SMB Fakra

**Material**

CuBe  
Stainless steel  
Brass  
PS  
PTFE  
Stainless steel  
CuBe  
PBT-GF20  
PBT-GF10

**Plating**

Gold, min. 1.27 µm, over nickel  
Passivated  
AuroDur®, gold plated  
Passivated

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**Electrical data**

Frequency	DC to 6 GHz
Return loss	≥ 35 dB, DC to 1 GHz ≥ 26 dB, 1 GHz to 3 GHz ≥ 21 dB, 3 GHz to 6 GHz

**Mechanical data**

Mating cycles	RPC-3.50 ≥ 500	SMB Fakra ≥ 500 (SMB Fakra Interface) ≥ 25 (SMB Fakra housing)
Maximum torque	1.70 Nm	
Recommended torque	0.90 Nm	
Engagement force		≤ 25 N
Disengagement force		≥ 2 N
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	157.3250 ps
Length (electrical) / Offset Length	47.16 mm
Offset Loss	2.07 G $\Omega$ /s
Loss	0.0283 dB/ $\sqrt{\text{GHz}}$

**Environmental data**

Operating temperature range <sup>1</sup>	+20 °C to +26 °C
Rated temperature range of use <sup>2</sup>	0 °C to +50 °C
Storage temperature range	- 40 °C to +85 °C

RoHS compliant

<sup>1</sup> Temperature range over which these specification are valid.

<sup>2</sup> This range is underneath and above the operating temperature range, within the calibration adaptor 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 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 11.5 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
Herbert Babinger	07.10.04	S. Andorfer	14.02.18	f01	17-1935	M. Knoll	14.02.18

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