



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

**Interface**

RPC-2.92 according to IEC 60169-35	IEC 60169-35
RPC-2.92 mechanically compatible with RPC-3.50 and SMA	RPC-3.50 and SMA
SMP according to MIL-STD 348A, Fig. 326	MIL-STD 348A, Fig. 326

**Documents**

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

**Connector parts**

Center conductor	<b>Material</b> CuBe	<b>Plating</b> Gold, min. 1.27 µm, over nickel
Outer conductor RPC-2.92	Stainless steel	Passivated
Outer conductor SMP	CuBe	Gold, min. 1.27 µm, over nickel
Cupling Nut	Stainless steel	Passivated
Dielectric	PS	

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RF\_35/09;14/6.2

**Electrical data**

Frequency	DC to 40 GHz
Return loss	≥ 32 dB, DC to 12 GHz ≥ 26 dB, 12 GHz to 26.5 GHz ≥ 21 dB, 26.5 GHz to 40 GHz

**Mechanical data**

	RPC-2.92	SMP
Mating cycles	≥ 500	≥ 100
Maximum torque	1.70 Nm	
Recommended torque	0.90 Nm	
Engagement force		Full detent 68 N
Disengagement force		Full detent 22 N
Gauge	0.00 mm to 0.03 mm	0.00 mm to 0.05 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	51.402 ps
Length (electrical) / Offset Length	15.41 mm
Offset Loss	4.00 G $\Omega$ /s
Loss	0.0179 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 specifications are valid.

<sup>2</sup> This range is underneath and above the operating temperature range, within the open 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 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 4.8 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
Marcel Panicke	15/07/14	Herbert Babinger	08/12/15	c00	14-1492	M.Ruf	08/12/15

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