



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

**Interface**

RPC-3.50 according to  
RPC-3.50 mechanically compatible with  
RPC-SP according to  
RPC-SP mechanically compatible with

IEC 60169-23  
RPC-2.92 and SMA  
MIL-STD 348A and IEC 61169-33  
OSP and BMA

**Documents**

Application note

AN001 "Calibration Services"

**Material and plating**

**Connector parts**  
Center conductor  
Outer conductor  
Coupling nut  
Dielectric

**Material**  
CuBe  
Stainless steel  
Stainless steel  
PS

**Plating**  
Gold, min. 1.27 µm, over nickel  
Passivated  
Passivated

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**Electrical data**

Frequency	DC to 22 GHz
Return loss	≥ 34 dB, DC to 4 GHz ≥ 26 dB, 4 GHz to 22 GHz

**Mechanical data**

	RPC-3.50	RPC-SP
Mating cycles	≥ 500	≥ 1000
Maximum torque	1.70 Nm	
Recommended torque	0.90 Nm	
Engagement force		13.5 N
Disengagement force		2 N
Gauge	0.00 mm to 0.08 mm	3.25 mm to 3.35 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	70.8001 ps
Length (electrical) / Offset Length	21.23 mm
Offset Loss	3.60 G $\Omega$ /s
Loss	0.0221 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.