



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

**Interface**

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

IEC 60169-23  
RPC-2.92 and SMA  
QLF® (Quick Lock Formula)  
Rosenberger is an authorised QLF® manufacturer

**Documents**

Application note

AN001 "Calibration Services"

**Material and plating**

**Connector parts**

- Center conductor
- Outer conductor RPC-3.50
- Outer conductor QMA
- Dielectric
- Coupling Nut RPC-3.50

**Material**

- CuBe
- CuBe or equiv.
- CuBe or equiv.
- PS
- Stainless steel

**Plating**

- Gold, min. 1.27 µm, over nickel
- White bronze(e.g. Optalloy®)
- White bronze(e.g. Optalloy®)
- Passivated

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RF\_35/09;14/6.2

**Electrical data**

Frequency	DC to 18 GHz
Return loss	≥ 32 dB, DC to 4 GHz ≥ 24 dB, 4 GHz to 18 GHz

**Mechanical data**

	RPC-3.50	QMA
Mating cycles	≥ 500	≥ 100
Maximum torque	1.70 Nm	
Recommended torque	0.90 Nm	
Engagement force		25 N
Disengagement force		20 N
Gauge	0.00 mm to 0.08 mm	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	73.4079 ps
Length (electrical) / Offset Length	22.00 mm
Offset Loss	2.51 G $\Omega$ /s
Loss	0.0159 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.