



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
Unlocking sleeve QMA

Material

CuBe
Brass
Spring bronze
PS
Brass

Plating

Gold, min. 1.27 µm, over nickel
White bronze(e.g. Optalloy®)
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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_0 / Impedance / Z_0	50 Ω
Offset Delay	73.4079 ps
Length (electrical) / Offset Length	22.00 mm
Offset Loss	2.51 G Ω /s
Loss	0.0159 dB/ $\sqrt{\text{GHz}}$

Environmental data

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

RoHS compliant

¹ Temperature range over which these specification are valid.

² This range is underneath and above the operating temperature range, within the calibration adaptor is fully functional and could be used without damage.