



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

Interface

QN according to

QLF® (Quick Lock Formula)

RPC-N according to

Rosenberger is an authorized QLF® manufacturer
IEC 61169-16

Documents

Application note

AN001 "Calibration Services"

Material and plating

Connector parts

- Center conductor
- Outer conductor QN
- Contact spring QN
- Outer conductor RPC-N
- Dielectric
- Gasket QN
- Unlocking sleeve QN
- Coupling nut RPC-N

Material

- CuBe
- Brass
- CuBe
- Stainless steel
- PPE
- Silicone
- Brass
- Stainless steel

Plating

- Gold, min. 1.27 µm, over chemical nickel
- Flash white bronze over silver(e.g. Optargen®)
- AuroDur®, gold plated
- Passivated
- White bronze(e.g. Optalloy®)
- Passivated

Dieses Dokument ist urheberrechtlich geschützt • This document is protected by copyright • Rosenberger Hochfrequenztechnik GmbH & Co. KG

RF_35/09.14/6.2

Electrical data

Frequency	DC to 11 GHz
Return loss	≥ 34 dB, DC to 3 GHz ≥ 28 dB, 3 GHz to 6 GHz ≥ 20 dB, 6 GHz to 11 GHz

Mechanical data

	RPC-N	QN
Mating cycles	≥ 500	≥ 100
Maximum torque	1.70 Nm	
Recommended torque	1.10 Nm	
Engagement force		30 N (typ.)
Disengagement force		30 N (typ.)
Gauge	5.28 mm to 5.36 mm	4.10 mm to 4.50 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	131.8246 ps
Length (electrical) / Offset Length	39.52 mm
Offset Loss	1.50 G Ω /s
Loss	0.0172 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 specifications are valid.

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