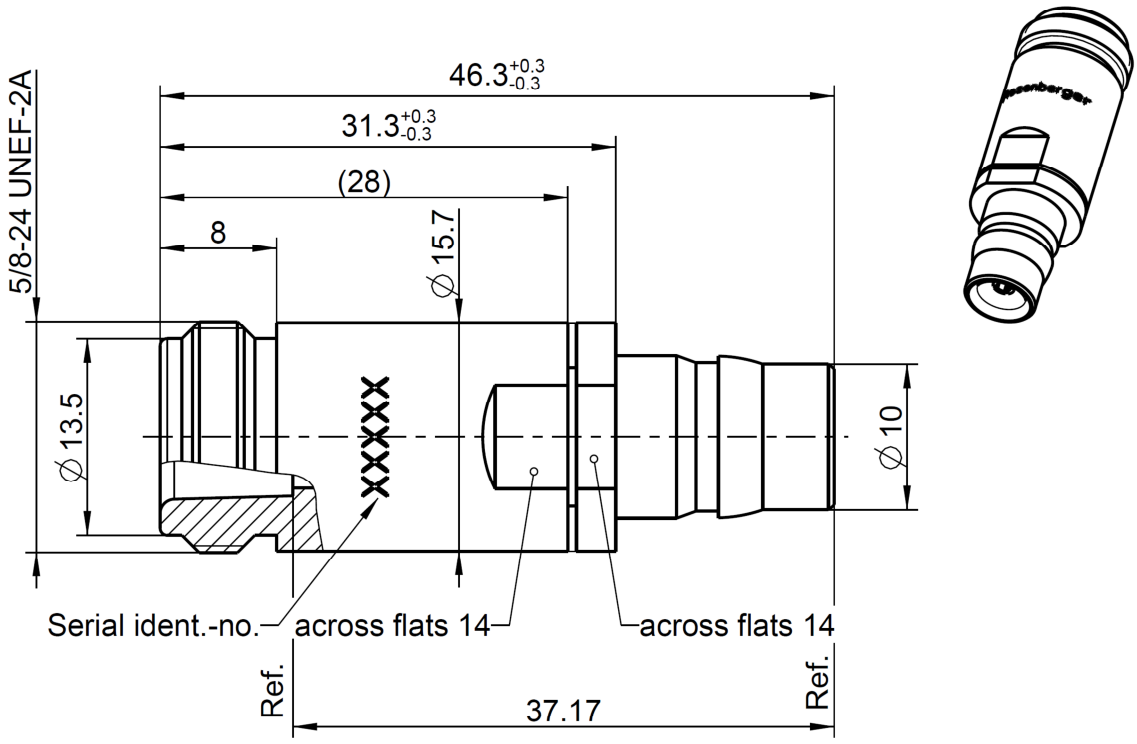
Technical Data Sheet

Rosenberger

Calibration Adaptor
QN Jack – RPC-N Jack

153QK105-K20S3



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

Interface

QN according to	QLF® (Quick Lock Formula) Rosenberger is an authorized QLF® manufacturer
RPC-N according to	IEC 61169-16

Documents

Application note	AN001 “Calibration Services”

Material and plating

Connector parts	**Material**	**Plating**
Center conductor	CuBe	Gold, min. 1.27 µm, over chemical nickel
Outer conductor	Stainless steel	Passivated
Dielectric	PPE	

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Electrical data

Frequency	DC to 11 GHz
Return loss	≥ 34 dB, DC to 3 GHz ≥ 28 dB, 3 GHz to 6 GHz ≥ 25 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	5.18 mm to 5.26 mm	2.10 mm to 2.60 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 Ω
Offset Delay	131.8246 ps
Length (electrical) / Offset Length	39.52 mm
Offset Loss	1.50 GΩ/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.*

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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	43.2 g/pce

Draft	Date	Approved	Date
Herbert Babinger	25.04.12	Martin Moder	10.01.18

Rev.	Engineering change number	Name	Date
c00	17-2112	M.Ruf	10.01.18

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