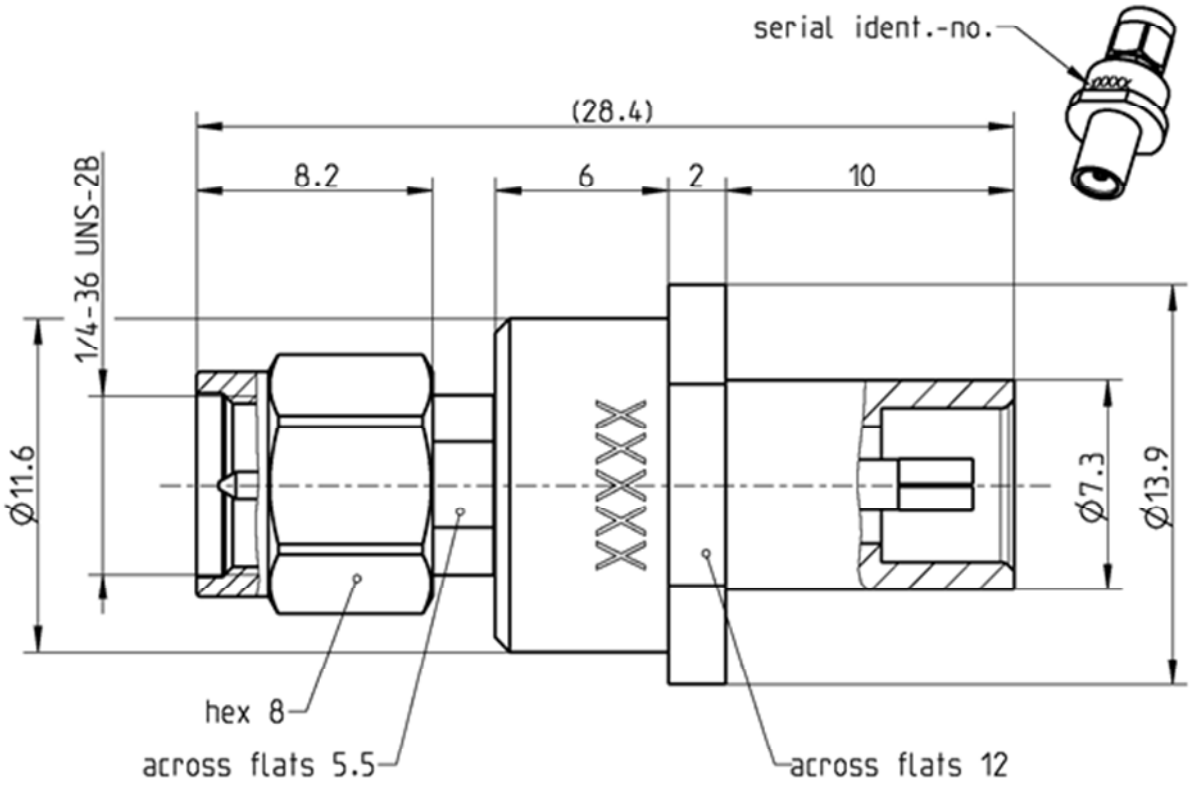
Technical Data Sheet	Rosenberger
Calibration Adaptor RPC-3.50 Plug – RPC-SP Jack	**03S110-K21S3**



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

Interface

RPC-3.50 according to	IEC 60169-23
RPC-3.50 mechanically compatible with	RPC-2.92 and SMA
RPC-SP in dependence on	MIL-STD 348A and IEC 61169-33
RPC-SP mechanically compatible with	OSP and BMA

Documents

Application note	AN001 “Calibration Services”

Material and plating

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

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Calibration Adaptor
RPC-3.50 Plug – RPC-SP Jack

03S110-K21S3

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		n.a. (no sliding outer conductor)
Disengagement force		n.a. (no sliding outer conductor)
Gauge	0.00 mm to 0.08 mm	3.12 mm to 3.22 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	70.8001 ps
Length (electrical) / Offset Length	21.23 mm
Offset Loss	3.60 GΩ/s
Loss	0.0221 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.*

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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

Recommended accessories

- Rosenberger Test Port Adaptor
- Rosenberger RPC-3.50 Kalibration-Kit 03CK001-150 and 03CK010-150
- Rosenberger VNA Test cable kit and Microwave Cable Assemblies

For further, more detailed information please visit our homepage www.rosenberger.com.

Packing

Standard	1 pce in box
Weight	10.7 g/pce

Draft	Date	Approved	Date
Herbert Babinger	19.05.04	Markus Müller	17.10.16

Rev.	Engineering change number	Name	Date
d00	16-1390	Marion Striegler	17.10.16

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