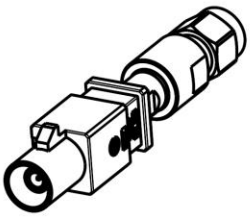
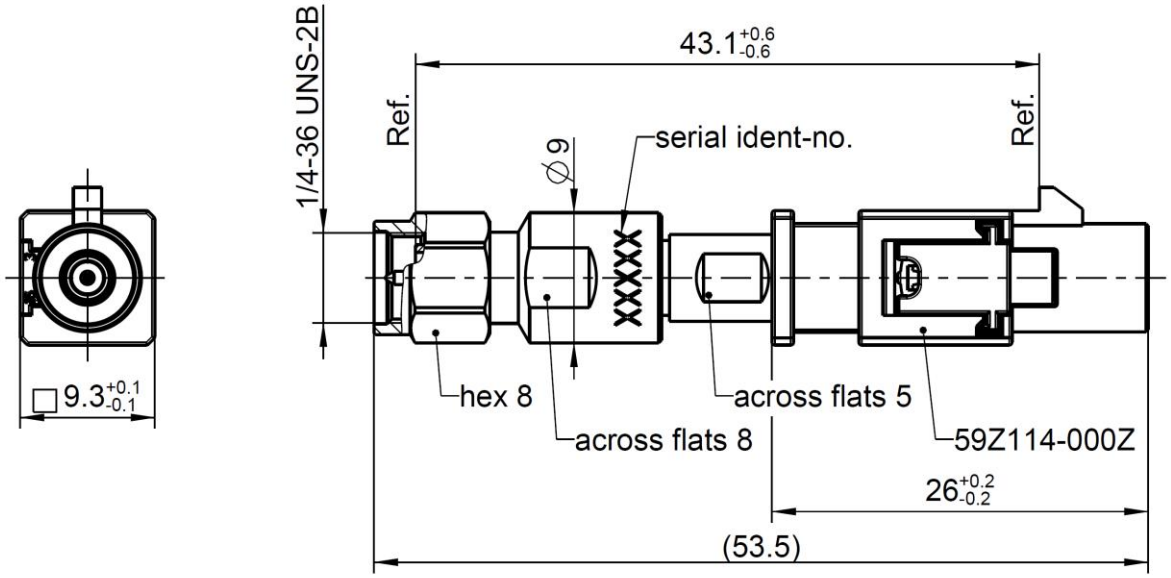
Calibration Adaptor
RPC-3.50 Plug – SMB Fakra Plug

03S159-S20S3





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

Interface

RPC-3.50 side	
According to	IEC 60169-23
Mechanically compatible with	RPC-2.92 and SMA
SMB Fakra side	
According to	DIN 72594-1

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 RPC-3.50	Stainless steel	Passivated
Outer conductor SMB Fakra	Brass	AuroDur®, gold plated
Dielectric RPC-3.50	PS	
Dielectric SMB Fakra	PTFE	
Coupling nut RPC-3.50	Stainless steel	Passivated
Housing SMB Fakra	PBT-GF20	
Secondary Lock SMB Fakra	PBT-GF10	

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Electrical data

Frequency	DC to 6 GHz
Return loss	≥ 35 dB, DC to 1 GHz ≥ 26 dB, 1 GHz to 3 GHz ≥ 21 dB, 3 GHz to 6 GHz

Mechanical data

	RPC-3.50	SMB Fakra
Mating cycles	≥ 500	≥ 500 (SMB Fakra Interface) ≥ 25 (SMB Fakra housing)
Maximum torque	1.70 Nm	
Recommended torque	0.90 Nm	
Engagement force		≤ 25 N
Disengagement force		≥ 2 N
Gauge	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 Ω
Offset Delay	157.3250 ps
Length (electrical) / Offset Length	47.16 mm
Offset Loss	2.07 GΩ/s
Loss	0.0283 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

Packing

Standard	1 pce in box
Weight	12.3 g/pce

Draft	Date	Approved	Date
Herbert Babinger	07.10.04	S. Andorfer	25.01.18

Rev.	Engineering change number	Name	Date
f00	17-1935	M. Knoll	25.01.18

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