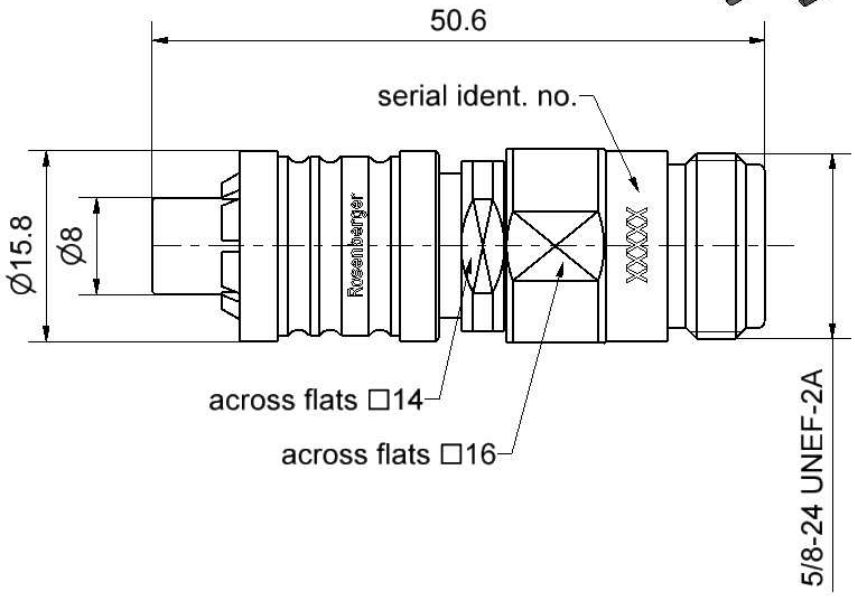
Technical Data Sheet

Rosenberger

Calibration Adaptor
SnapN 50Ω Plug – RPC-N 50Ω Jack

53QS105-K20S3



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

Interface

SnapN according to	Rosenberger SnapN
RPC-N according to	IEC 61169-16

Documents

Application note	AN001 “Calibration Services”

Material and plating

Connector parts	Material	Plating
Center contact	CuBe	Gold, min. 1.27 µm, over nickel
Outer contact SnapN	Spring bronze	Passivated
Outer contact RPC-N	Stainless steel	White bronze(e.g. Optalloy®)
Latching sleeve	Brass	White bronze(e.g. Optalloy®)
Dielectric	PPE	

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Electrical data

Frequency	DC to 11 GHz
Return loss	≥ 36 dB, DC to 4 GHz ≥ 27 dB, 4 GHz to 11 GHz

Mechanical data

	RPC-N 50 Ω	SnapN 50 Ω
Mating cycles	≥ 500	≥ 200
Maximum torque	1.70 Nm	
Recommended torque	1.10 Nm	
Engagement force		30 N (typ.) [1]
Disengagement force		30 N (typ.) [1]
Gauge	5.22 mm to 5.26 mm	5.28 mm to 5.38 mm

[1] *Please always use the latching sleeve for locking and unlocking units*

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	145.1004 ps
Length (electrical) / Offset Length	43.50 mm
Offset Loss	2.66 GΩ/s
Loss	0.0331 dB/$\sqrt{\text{GHz}}$

Environmental data

Operating temperature range[2]	+20 °C to +26 °C
Rated temperature range of use[3]	0 °C to +50 °C
Storage temperature range	-40 °C to +85 °C
RoHS	compliant

[2] *Temperature range over which these specifications are valid.*
[3] *This range is underneath and above the operating temperature range, within the open circuit is fully functional and could be used without damage.*