



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

**Interface**

SnapN according to  
RPC-N according to

Rosenberger SnapN  
IEC 61169-16

**Documents**

Application note

AN001 "Calibration Services"

**Material and plating**

**Connector parts**

- Center contact
- Outer contact SnapN
- Outer contact RPC-N
- Latching sleeve
- Dielectric

**Material**

- CuBe
- Spring bronze
- Stainless steel
- Brass
- PPE

**Plating**

- Gold, min. 1.27 µm, over nickel
- Passivated
- White bronze(e.g. Optalloy®)
- White bronze(e.g. Optalloy®)

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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.) <sup>1</sup>
Disengagement force		30 N (typ.) <sup>1</sup>
Gauge	5.22 mm to 5.26 mm	5.28 mm to 5.38 mm

<sup>1</sup> 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 <sub>o</sub> / Impedance / Z <sub>o</sub>	50 Ω
Offset Delay	145.1004 ps
Length (electrical) / Offset Length	43.50 mm
Offset Loss	2.66 GΩ/s
Loss	0.0331 dB/√GHz

**Environmental data**

Operating temperature range <sup>2</sup>	+20 °C to +26 °C
Rated temperature range of use <sup>3</sup>	0 °C to +50 °C
Storage temperature range	-40 °C to +85 °C

RoHS compliant

<sup>2</sup> Temperature range over which these specifications are valid.

<sup>3</sup> This range is underneath and above the operating temperature range, within the open circuit is fully functional and could be used without damage.

# Technical Data Sheet

# Rosenberger

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

## 53QS105-K20S3

### 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 51.0 g/pce

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
Kerstin Herzog	04.06.07	Herbert Babinger	09.11.15	c00	14-1492	Maik Knoll	09.11.15

  

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