



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

Interface

RPC-N 50 Ω according to
BNC 50 Ω according to

IEC 60169-16
IEC 60169-8, MIL-PRF-39012, CECC 22120

Documents

Application note

AN001 "Calibration Services"

Material and plating

Connector parts

Center contact
Outer contact
Coupling nut
Dielectric

Material

CuBe
Stainless steel
Stainless steel
PTFE; PPE

Plating

Gold, min. 1.27 µm, over nickel
Passivated
Passivated

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RF_35/05.10/6.0

Electrical data

Frequency	DC to 4 GHz
Return loss	≥ 36 dB, DC to 2 GHz ≥ 30 dB, 2 GHz to 4 GHz

Mechanical data

Mating cycles	≥ 500	
	RPC-N 50 Ω	BNC 50 Ω
Maximum torque	1.70 Nm	
Recommended torque	1.10 Nm	
Gauge	5.28 mm to 5.36 mm	5.31 mm to 5.38 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	173.720 ps
Length (electrical) / Offset Length	52.08 mm
Offset Loss	2.5 GΩ/s
Loss	0.0377 dB/√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.

Technical Data Sheet

Rosenberger

Calibration Adaptor
RPC-N 50Ω Plug – BNC 50Ω Plug

05S151-S20S3

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 54 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
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