

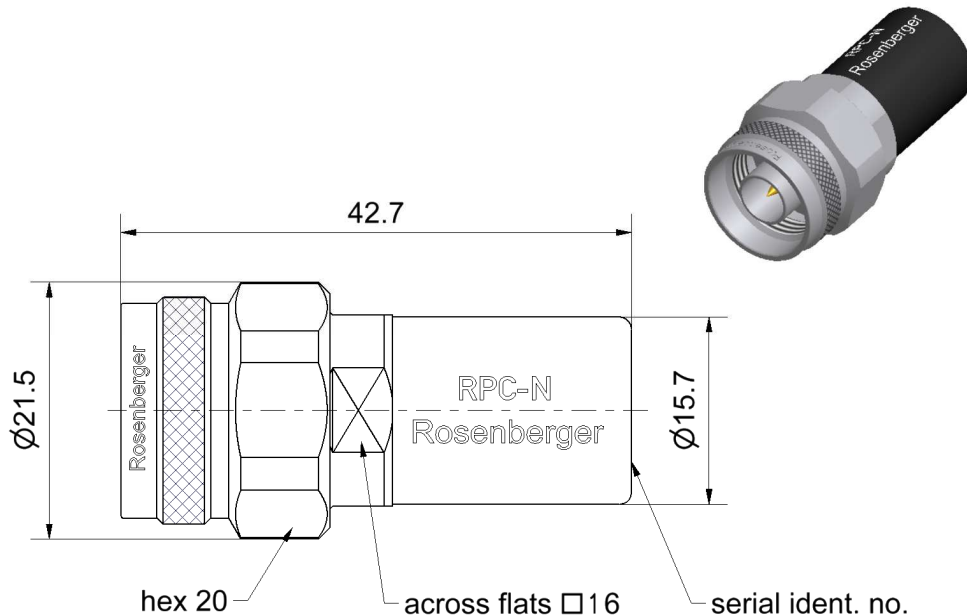
Technical Data Sheet

Rosenberger

RPC-N
50 Ω

Calibration Load
Plug

05S150-C10S3



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

Interface

According to IEC 61169-16

Documents

Application note AN001 "Calibration Services"

Material and plating

Connector parts

Center conductor
Outer conductor
Coupling nut
Dielectric
Substrate

Material

CuBe
Stainless steel
Stainless steel
PPE
Al₂O₃

Plating

Gold, min. 1.27 µm, over nickel
Passivated
Passivated

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05S150-C10S3

Electrical data

Frequency range	DC to 18 GHz
Return loss	≥ 45 dB, DC to 4 GHz ≥ 32 dB, 4 GHz to 8 GHz ≥ 30 dB, 8 GHz to 18 GHz
DC Resistance	$50 \Omega \pm 0.25 \Omega$
Power handling	≤ 1 W

Mechanical data

Mating cycles	≥ 500
Maximum torque	1.70 Nm
Recommended torque	1.10 Nm
Gauge	5.28 mm to 5.32 mm

General standard definitions

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_0 / Impedance / Z_0	50 Ω
Offset Delay	0.0000 ps
Length (electrical) / Offset Length	0.00 mm
Offset Loss	0.00 G Ω /s
Loss	0.0000 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 load is fully functional and could be used without damage.

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Technical Data Sheet				Rosenberger			
RPC-N 50 Ω		Calibration Load Plug		05S150-C10S3			
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 national / international standards. Model based standard definitions are reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format. Accredited Calibration Optional this calibration standard can be delivered with an Accredited Calibration (DAkkS) having the highest confidence in the traceability. The DAkkS Calibration Certificate issued reports individual calibration results in a complex format, traceable to national / international standards. Model based standard definitions are reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format as well as in a dense data set needed for data based standard definitions. The uncertainties are smaller than in a Factory Calibration. For further, more detailed information see application note AN001 on the Rosenberger homepage. Calibration interval Recommendation12 months Packing Standard1 pce in box Weight50.0 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
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