



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

Interface

RPC-N according to IEC 61169-16
RPC-TNC according to IEC 61169-26

Documents

Application note AN001 "Calibration Services"

Material and plating

Connector parts

Center conductor
Outer conductor
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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Electrical data

Frequency range	DC to 18 GHz
Return loss	≥ 30 dB, DC to 4 GHz ≥ 20 dB, 4 GHz to 18 GHz

Mechanical data

Mating cycles	≥ 500	
Maximum torque	RPC-N 1.70 Nm	RPC-TNC 1.70 Nm
Recommended torque	1.10 Nm	0.55 Nm
Gauge	5.28 mm to 5.36 mm	5.28 mm to 5.38 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_o / Impedance / Z_o	50 Ω
Offset Delay	188.464 ps
Length (electrical) / Offset Length	56.50 mm
Offset Loss	2.50 G Ω /s
Loss	0.0409 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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