



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

Interface

RPC-3.50 according to
RPC-3.50 mechanically compatible with
RPC-SP in dependence on
RPC-SP mechanically compatible with

IEC 60169-23
RPC-2.92 and SMA
MIL-STD 348A and IEC 61169-33
OSP and BMA

Documents

Application note

AN001 "Calibration Services"

Material and plating

Connector parts
Center conductor
Outer conductor
Coupling nut
Dielectric

Material
CuBe
Stainless steel
Stainless steel
PS

Plating
Gold, min. 1.27 µm, over nickel
Passivated
Passivated

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Electrical data

Frequency	DC to 22 GHz
Return loss	≥ 34 dB, DC to 4 GHz ≥ 26 dB, 4 GHz to 22 GHz

Mechanical data

	RPC-3.50	RPC-SP
Mating cycles	≥ 500	≥ 1000
Maximum torque	1.70 Nm	
Recommended torque	0.90 Nm	
Engagement force		n.a. (no sliding outer conductor)
Disengagement force		n.a. (no sliding outer conductor)
Gauge	0.00 mm to 0.08 mm	3.12 mm to 3.22 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	70.8001 ps
Length (electrical) / Offset Length	21.23 mm
Offset Loss	3.60 G Ω /s
Loss	0.0221 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.