



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

**Interface**

RPC-N 75 Ω according to IEC 61169-16  
 F 75 Ω according to IEC 61169-24<sup>1</sup>, EIA-550  
<sup>1</sup> Accepts only limited pin diameter, see "Mechanical data".

**Documents**

Application note AN001 "Calibration Services"

**Material and plating**

**Connector parts**

	Material	Plating
Center contact	CuBe	Gold, min. 1.27 μm, over nickel
Outer contact	Stainless steel	Passivated
Coupling nut	Stainless steel	Passivated
Dielectric	PS	

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**Electrical data**

Frequency	DC to 6 GHz
Return loss	≥ 32 dB, DC to 3 GHz ≥ 28 dB, 3 GHz to 6 GHz

**Mechanical data**

	RPC-N 75 Ω	F 75 Ω
Mating cycles	≥ 500	≥ 1000
Maximum torque	1.70 Nm	6.78 Nm
Recommended torque	1.10 Nm	2.00 Nm
Gauge	5.28 mm to 5.36 mm	0.00 mm to 0.10 mm
Permitted male pin diameter <sup>2</sup>		0.76 mm to 0.86 mm

<sup>2</sup> Connecting a F plug with larger male pin diameter will damage female contact fingers of this adaptor. Use "full range adaptor" 74S121-K22S3 instead.

**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 <sub>0</sub> / Impedance / Z <sub>0</sub>	75 Ω
Offset Delay	143.099 ps
Length (electrical) / Offset Length	42.90 mm
Offset Loss	3.20 GΩ/s
Loss	0.0265 dB/√GHz
Line Loss @ 1GHz	0.0006 dB/mm

**Environmental data**

Operating temperature range <sup>3</sup>	+20 °C to +26 °C
Rated temperature range of use <sup>4</sup>	0 °C to +50 °C
Storage temperature range	- 40 °C to +85 °C

RoHS compliant

<sup>3</sup> Temperature range over which these specification are valid.

<sup>4</sup> This range is underneath and above the operating temperature range, within the calibration adaptor is fully functional and could be used without damage.