



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**

Center contact	<b>Material</b> CuBe	<b>Plating</b> Gold, min. 1.27 µm, over nickel
Outer contact	Stainless steel	Passivated
Dielectric	PS	

**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	5.18 mm to 5.26 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	112.745 ps
Length (electrical) / Offset Length	33.80 mm
Offset Loss	3.20 GΩ/s
Loss	0.0209 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.

# Technical Data Sheet

# Rosenberger

Calibration Adaptor  
RPC-N 75  $\Omega$  Jack – F 75  $\Omega$  Jack

## P5K174-K21S3

### 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 40.5 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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