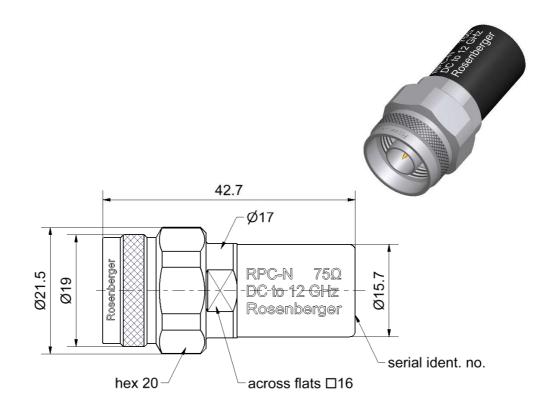
Technica	al Data Sheet	Rosenberger		
RPC-N 75 Ω	Open Circuit	P5S12L-00AS3		



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

In	ter	fa	ce

According to IEC 61169-16

### **Documents**

Application note AN001 "Calibration Services"

# Material and plating Connector parts

Connector parts

Center conductor

Outer conductor

Coupling nut

Dielectric

Material

CuBe

Gold, min. 1.27 µm, over nickel

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Tel. : +49 8684 18-0

Email: info@rosenberger.de

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1/3

Technic	al Data Sheet	Rosenberger			
RPC-N 75 Ω	Open Circuit Plug	P5S12L-00AS3			

### Electrical data

Frequency range DC to 12 GHz

Return loss ≤ 0.10 dB, DC to 4 GHz

 $\leq 0.15$  dB, 4 GHz to 8 GHz  $\leq 0.20$  dB, 8 GHz to 12 GHz

Error from nominal phase<sup>1</sup>  $\leq 1.5^{\circ}$ , DC to 4 GHz

 $\leq$  3.0°, 4 GHz to 8 GHz  $\leq$  4.0°, 8 GHz to 12 GHz

#### Mechanical data

 $\begin{array}{ll} \text{Mating cycles} & \geq 500 \\ \text{Maximum torque} & 1.70 \text{ Nm} \\ \text{Recommended torque} & 1.10 \text{ Nm} \\ \end{array}$ 

Gauge 5.28 mm to 5.36 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.

 $\begin{array}{ll} \mbox{Offset $Z_{\circ}$ / Impedance / $Z_{\circ}$} & 75 \ \Omega \\ \mbox{Offset Delay} & 41.095 \ ps \\ \mbox{Length (electrical) / Offset Length} & 12.32 \ mm \\ \mbox{Offset Loss} & 1.20 \ G\Omega/s \\ \mbox{Loss} & 0.0057 \ dB/\sqrt{\mbox{GHz}} \end{array}$ 

Fringing Capacitances<sup>2</sup>

#### **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

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<sup>&</sup>lt;sup>1</sup> The nominal phase is defined by the Offset Delay, the Offset Loss and the Fringing Capacitances.

<sup>&</sup>lt;sup>2</sup> Fringing Capacitances are determined individually for each open circuit and are documented in a Calibration Certificate.

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

<sup>&</sup>lt;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.

Technica	al Data Sheet	Rosenberger		
RPC-N 75 Ω	Open Circuit	P5S12L-00AS3		

#### **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 individually optimized and 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 individually optimized and 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

Recommendation 12 months

**Packing** 

Standard 1 pce in box Weight 47.5 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
	Marion Striegler	27.02.14	Markus Müller	10.08.16		f00	16-1267	Marion Striegle	r	10.08.16
Rosenberger Hochfrequenztechnik GmbH & Co. KG								Page		

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