



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

**Interface**

According to IEC 61169-16

**Documents**

Application note AN001 "Calibration Services"

**Documentation**

This Part is delivered with:

- **USB Stick**
  - S2p data file and uncertainty data file of the reference measurement values
  - Calibration Certificate as PDF file.
- **Calibration Certificate**  
Details see "Declaration of calibration" options.

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RF\_35/09;14/6.2

RPC-N  
50 Ω

Attenuator  
Plug/Jack

**05AS122-K40S3**

**Material and plating**

**Connector parts**

Center conductor - plug  
Center conductor - jack  
Outer conductor  
Coupling nut  
Dielectric  
Substrate

**Material**

Brass  
CuBe  
Stainless steel  
Stainless steel  
PPE  
Al<sub>2</sub>O<sub>3</sub>

**Plating**

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

**Electrical data**

Frequency range DC to 18 GHz  
DC Resistance 50 Ω  
Power handling ≤ 0.5 W

**Electrical data (typical)**

Return loss ≥ 32 dB, DC to 4 GHz  
≥ 23 dB, 4 GHz to 18 GHz  
Attenuation 40 dB ± 0.5 dB, DC to 4 GHz  
40 dB ± 1.0 dB, 4 GHz to 18 GHz

**Mechanical data**

Mating cycles ≥ 500  
Maximum torque 1.70 Nm  
Recommended torque 1.10 Nm  
Gauge - plug 5.28 mm to 5.32 mm  
Gauge - jack 5.22 mm to 5.26 mm

**Electrical verification standard**

This Attenuator is designed as an electrical verification standard. Reference measurement values (calibration results) for transmission and reflection are included. Connected to a calibrated VNA the actual measured transmission and reflection values can be compared to the reference measurement values and the quality of the VNA calibration can be evaluated.

**Environmental data**

Operating temperature range<sup>1</sup> +20 °C to +26 °C  
Rated temperature range of use<sup>2</sup> 0 °C to +50 °C  
Storage temperature range - 40 °C to +85 °C

RoHS compliant

<sup>1</sup> Temperature range over which the reference measurement values are applicable.

<sup>2</sup> This range is underneath and above the operating temperature range, within the attenuator is fully functional and could be used without damage.

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**Declaration of calibration options**

**Factory Calibration**

Standard delivery for this verification standard includes a Factory Calibration. The Calibration Certificate issued reports individual transmission and reflection calibration results traceable to national / international standards. A S2p data file with the reference measurement values and the measurement uncertainties in electronic format are included.

**Accredited Calibration**

Optional this verification standard can be delivered with an Accredited Calibration (DAkkS) having the highest confidence in the traceability. The DAkkS Calibration Certificate issued reports individual transmission and reflection calibration results traceable to national / international standards. A S2p data file with the reference measurement values and the measurement uncertainties in electronic format are included. The measurement 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 68 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
Kerstin Herzog	20.01.05	Lars Ramtke	28.03.18	i00	18-0190	Marion Striegler	28.03.18

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