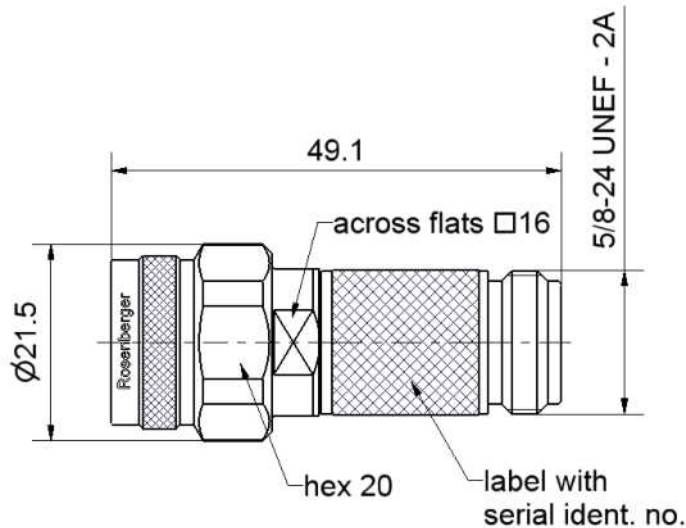


RPC-N  
50 Ω

Attenuator  
Plug/Jack

05AS122-K03S3



All dimensions are in mm

## 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.

RPC-N  
50 Ω

Attenuator  
Plug/Jack

05AS122-K03S3

## 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  
≥ 26 dB, 4 GHz to 8 GHz  
≥ 23 dB, 8 GHz to 12.4 GHz  
≥ 21 dB, 12.4 GHz to 18 GHz  
Attenuation 3 dB ± 0.3 dB, DC to 8 GHz  
3 dB ± 0.5 dB, 8 GHz to 12.4 GHz  
3 dB ± 0.8 dB, 12.4 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.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          |                         |          |                                                     |                           |             |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|----------|-----------------------------------------------------|---------------------------|-------------|-------------------|
| Technical Data Sheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |                         |          | Rosenberger                                         |                           |             |                   |
| RPC-N<br>50 Ω                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          | Attenuator<br>Plug/Jack |          | 05AS122-K03S3                                       |                           |             |                   |
| <div>Declaration of calibration options</div> <div>Factory Calibration</div> <p>Standard delivery for this device includes a Factory Calibration. The Calibration Certificate issued reports individual calibration results, traceable to national / international standards. A S2P data file with the reference measurement values is included.</p> <div>Accredited Calibration</div> <p>Optionally, the device can be delivered with an Accredited Calibration performed in the Rosenberger laboratory. This laboratory is accredited by the DAkkS, which is a co-signatory of the ILAC MLA (Mutual Recognition Arrangement) to ensure the highest level of confidence with regard to traceability of calibration results. The calibration certificate issued reports individual transmission and reflection calibration results traceable to national / international standards. A data file with reference measurement values in electronic format is included.</p> <p>For further, more detailed information see application note AN001 on the Rosenberger homepage.</p> <div>Calibration interval</div> <div>Recommendation12 months</div> <div>Weight</div> <div>59.0 g/pce</div> |          |                         |          |                                                     |                           |             |                   |
| <div><div><p>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.</p></div><div><p>For the installation of the electrotechnical equipment, particular electrotechnical expertise is required.</p></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                         |          |                                                     |                           |             |                   |
| Draft                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Date     | Approved                | Date     | Rev.                                                | Engineering change number | Name        | Date              |
| M. Striegler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 26.01.18 | L. Ramtke               | 06.03.25 | b00                                                 | 25-0004                   | D. d'Argent | 06.03.25          |
| Rosenberger Hochfrequenztechnik GmbH & Co. KG<br>P.O.Box 1260 D-84526 Tittmoning Germany<br>www.rosenberger.de                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |                         |          | Tel. : +49 8684 18-0<br>Email : info@rosenberger.de |                           |             | Page<br><br>3 / 3 |