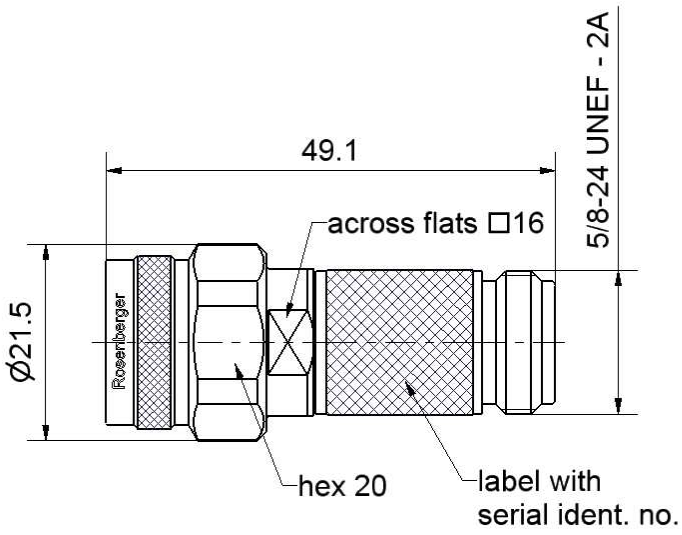
Technical Data Sheet		Rosenberger
RPC-N 50 Ω	Attenuator Plug/Jack	**05AS122-K10S3**



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.

Rosenberger Hochfrequenztechnik GmbH & Co. KG
P.O.Box 1260 D-84526 Tittmoning Germany
www.rosenberger.de

Tel. : +49 8684 18-0
Email : info@rosenberger.de

Material and plating

Connector parts	Material	Plating
Center conductor - plug	Brass	Gold, min. 1.27 µm, over nickel
Center conductor - jack	CuBe	Gold, min. 1.27 µm, over nickel
Outer conductor	Stainless steel	Passivated
Coupling nut	Stainless steel	Passivated
Dielectric	PPE	
Substrate	Al_2O_3	

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 12.4 GHz
	≥ 23 dB, 12.4 GHz to 18 GHz
Attenuation	10 dB ± 0.3 dB, DC to 8 GHz
	10 dB ± 0.5 dB, 8 GHz to 12.4 GHz
	10 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[1]	+20 °C to +26 °C
Rated temperature range of use[2]	0 °C to +50 °C
Storage temperature range	- 40 °C to +85 °C
RoHS	compliant

[1] *Temperature range over which the reference measurement values are applicable.*
[2] *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	67 g/pce

Draft	Date	Approved	Date
Marion Striegler	26.01.18	Lars Ramtke	28.03.18

Rev.	Engineering change number	Name	Date
a00	18-0190	Marion Striegler	28.03.18

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