



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.

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
Al₂O₃

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 12.4 GHz
≥ 23 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 range¹ +20 °C to +26 °C
Rated temperature range of use² 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.

Technical Data Sheet				Rosenberger									
RPC-N 50 Ω		Attenuator Plug/Jack		05AS122-K03S3									
<div>Declaration of calibration options</div> <div>Factory Calibration</div> <p>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.</p> <div>Accredited Calibration</div> <p>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.</p> <p>For further, more detailed information see application note AN001 on the Rosenberger homepage.</p> <div>Calibration interval</div> <table><tr><td>Recommendation</td><td>12 months</td></tr></table> <div>Packing</div> <table><tr><td>Standard</td><td>1 pce in box</td></tr><tr><td>Weight</td><td>67 g/pce</td></tr></table>								Recommendation	12 months	Standard	1 pce in box	Weight	67 g/pce
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Rev.		Engineering change number		Name		Date							
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