



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

Interface

According to
Mechanically compatible with

IEC 60169-23
RPC-2.92 and SMA

Documents

Application note

AN001 "Calibration Services"

Material and plating

Connector parts

Center conductor
Outer conductor
Coupling nut
Dielectric

Material

CuBe
Stainless steel
Stainless steel
PS

Plating

Gold, min. 1.27 µm, over nickel
Passivated
Passivated

Electrical data

| | |
|-----------------|----------------------------|
| Frequency range | DC to 26.5 GHz |
| Return loss | ≥ 34 dB, DC to 4 GHz |
| | ≥ 32 dB, 4 GHz to 8 GHz |
| | ≥ 30 dB, 8 GHz to 26.5 GHz |

Mechanical data

| | |
|--------------------|--------------------|
| Mating cycles | ≥ 500 |
| Maximum torque | 1.70 Nm |
| Recommended torque | 0.90 Nm |
| Gauge | 0.00 mm to 0.04 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.

| | |
|-------------------------------------|--------------------------------|
| Offset Z_o / Impedance / Z_o | 50 Ω |
| Offset Delay | 84.0582 ps |
| Length (electrical) / Offset Length | 25.20 mm |
| Offset Loss | 2.51 G Ω /s |
| Loss | 0.0183 dB/ $\sqrt{\text{GHz}}$ |

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 these specification are valid.

² This range is underneath and above the operating temperature range, within the calibration adaptor is fully functional and could be used without damage.

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|---|--------------|-------------------------------|--|---|--|---------------------------|---------------|----------------|-----------|----------|--------------|--------|-----------|
| Technical Data Sheet | | | | Rosenberger | | | | | | | | | |
| RPC-3.50 | | Calibration Adaptor Plug/Jack | | 03S121-K20S3 | | | | | | | | | |
| <div>Declaration of calibration options</div> <div>Factory Calibration</div> <p>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 reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format.</p> <div>Accredited Calibration</div> <p>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 reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format. The 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>8.0 g/pce</td></tr></table> | | | | | | | | Recommendation | 12 months | Standard | 1 pce in box | Weight | 8.0 g/pce |
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| <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> | | | | | | | | | | | | | |
| Draft | | Date | | Rev. | | Engineering change number | | | | | | | |
| Approved | | Date | | Name | | Date | | | | | | | |
| Herbert Babinger | | 15.10.14 | | Markus Müller | | 17.10.16 | | | | | | | |
| g00 | | 16-1390 | | Marion Striegler | | 17.10.16 | | | | | | | |
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