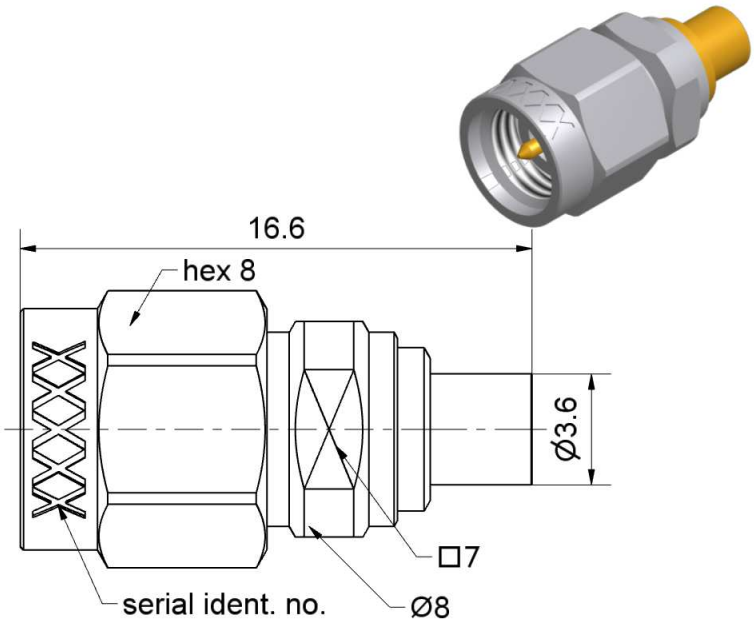
| Technical Data Sheet | Rosenberger |
|---|---|
| Calibration Adaptor<br>RPC-2.92 Plug – Mini-SMP Plug | **02S118-S20D3** |




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

## Interface

| | |
|---|---|
| RPC-2.92 side | |
| According to | IEC 61169-35 |
| Mechanically compatible with | RPC-3.50 and SMA |
| | |
| Mini-SMP side | |
| According to | MIL-STD-348A, Fig.328 |
| Mechanically compatible with | GPPO™ (Gilbert Engineering Co., Inc.)<br>and SSMP™ (Connectors Devices, Inc.) |

## Documents

| | |
|---|---|
| Application note | AN001 “Calibration Services” |

## Material and plating

| **Connector parts** | **Material** | **Plating** |
|---|---|---|
| Center conductor | CuBe | Gold, min. 1.27 µm, over nickel |
| Outer conductor RPC-2.92 | Stainless steel | Passivated |
| Outer conductor Mini-SMP | CuBe | Gold, min. 1.27 µm, over nickel |
| Coupling Nut | Stainless steel | Passivated |
| Dielectric | PS | |





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# Calibration Adaptor
RPC-2.92 Plug – Mini-SMP Plug

**02S118-S20D3**

## Electrical data

| | |
|---|---|
| Frequency | DC to 40 GHz |
| Return loss | ≥ 28 dB, DC to 18 GHz<br>≥ 20 dB, 18 GHz to 40 GHz |

## Mechanical data

| | RPC-2.92 | Mini-SMP |
|---|---|---|
| Mating cycles | ≥ 500 | ≥ 100 |
| Maximum torque | 1.70 Nm | |
| Recommended torque | 0.90 Nm | |
| Engagement force | | Full detent 19 N typical |
| Disengagement force | | Full detent 29 N typical |
| Gauge | 0.00 mm to 0.08 mm | 0.00 mm to 0.08 mm |

## General standard definition

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 | 41.4475 ps |
| Length (electrical) / Offset Length | 12.43 mm |
| Offset Loss | 3.70 GΩ/s |
| Loss | 0.0133 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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## Declaration of calibration options

**Factory Calibration**

Standard delivery for this calibration standard includes a Factory Calibration. The Calibration Certificate issued reports individual calibration results, **traceable to Rosenberger standards**, national / international standards are not available. Model based standard definitions are reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format.

**Accredited Calibration**

Not available.

*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 | 3.6 g/pce |







| Draft | Date | Approved | Date |
|---|---|---|---|
| Marcel Panicke | 03.11.09 | Markus Müller | 03.11.16 |

| Rev. | Engineering change number | Name | Date |
|---|---|---|---|
| d00 | 16-1390 | Marion Striegler | 03.11.16 |

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