

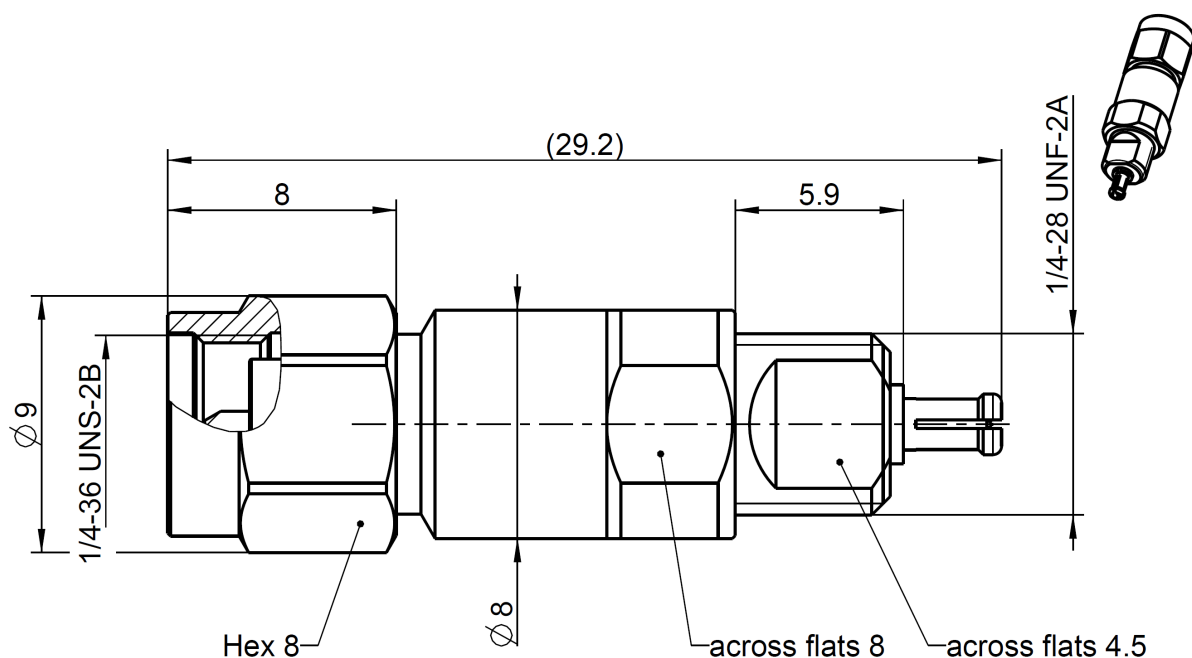
# Technical Data Sheet

# Rosenberger

RPC-2.92

Adaptor  
RPC-2.92 PLUG –  
Mini-Coax 40 GHz PLUG

**02S123-S00S3**



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

## Interface

RPC-2.92 according to  
RPC-2.92 mechanically compatible with  
Mini-Coax according to

IEC 61169-35  
RPC-3.50 and SMA  
Rosenberger Mini-Coax

## Documents

N/A

## Material and plating

### Connector parts

Center contact  
Outer contact Mini-Coax  
Outer contact RPC-2.92  
Body  
Coupling nut  
Dielectric 1  
Dielectric 2  
Gasket RPC-2.92

### Material

CuBe  
CuBe  
Stainless steel  
Stainless steel  
Stainless steel  
PS  
PTFE  
Silicone

### Plating

Gold, min. 1.27 µm, over chemical nickel  
AuroDur®, gold plated  
Passivated  
Passivated  
Passivated

Dieses Dokument ist urheberrechtlich geschützt • This document is protected by copyright • Rosenberger Hochfrequenztechnik GmbH & Co. KG  
RF\_35/05.10/6.0

| Technical Data Sheet                                                                                                                                                                                                                                                                                                                         |          |                                                     |          | Rosenberger                                                                  |                           |             |                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------|----------|------------------------------------------------------------------------------|---------------------------|-------------|-------------------|
| RPC-2.92                                                                                                                                                                                                                                                                                                                                     |          | Adaptor<br>RPC-2.92 PLUG –<br>Mini-Coax 40 GHz PLUG |          | 02S123-S00S3                                                                 |                           |             |                   |
| <b>Electrical data</b>                                                                                                                                                                                                                                                                                                                       |          |                                                     |          |                                                                              |                           |             |                   |
| Impedance                                                                                                                                                                                                                                                                                                                                    |          | 50 Ω                                                |          |                                                                              |                           |             |                   |
| Frequency                                                                                                                                                                                                                                                                                                                                    |          | DC to 40 GHz                                        |          |                                                                              |                           |             |                   |
| Return loss                                                                                                                                                                                                                                                                                                                                  |          | ≥ 26 dB, DC to 18 GHz                               |          |                                                                              |                           |             |                   |
|                                                                                                                                                                                                                                                                                                                                              |          | ≥ 21 dB, 18 GHz to 26.5 GHz                         |          |                                                                              |                           |             |                   |
|                                                                                                                                                                                                                                                                                                                                              |          | ≥ 15 dB, 26.5 GHz to 40 GHz                         |          |                                                                              |                           |             |                   |
| Insertion loss                                                                                                                                                                                                                                                                                                                               |          | ≤ 0.04 x √f(GHz) dB                                 |          |                                                                              |                           |             |                   |
| Insulation resistance                                                                                                                                                                                                                                                                                                                        |          | ≥ 5 GΩ                                              |          |                                                                              |                           |             |                   |
| Center contact resistance RPC-2.92                                                                                                                                                                                                                                                                                                           |          | ≤ 3.0 mΩ                                            |          |                                                                              |                           |             |                   |
| Outer contact resistance RPC-2.92                                                                                                                                                                                                                                                                                                            |          | ≤ 2.0 mΩ                                            |          |                                                                              |                           |             |                   |
| Center contact resistance Mini-Coax                                                                                                                                                                                                                                                                                                          |          | ≤ 10.0 mΩ                                           |          |                                                                              |                           |             |                   |
| Outer contact resistance Mini-Coax                                                                                                                                                                                                                                                                                                           |          | ≤ 3.0 mΩ                                            |          |                                                                              |                           |             |                   |
| Test voltage                                                                                                                                                                                                                                                                                                                                 |          | 750 V rms                                           |          |                                                                              |                           |             |                   |
| Working voltage                                                                                                                                                                                                                                                                                                                              |          | 250 V rms                                           |          |                                                                              |                           |             |                   |
| RF-leakage                                                                                                                                                                                                                                                                                                                                   |          | ≥ 80 dB @ DC to 1 GHz                               |          |                                                                              |                           |             |                   |
|                                                                                                                                                                                                                                                                                                                                              |          | ≥ 60 dB @ 1GHz to 4 GHz                             |          |                                                                              |                           |             |                   |
| <b>Mechanical data</b>                                                                                                                                                                                                                                                                                                                       |          |                                                     |          |                                                                              |                           |             |                   |
| Mating cycles                                                                                                                                                                                                                                                                                                                                |          | ≥ 500                                               |          |                                                                              |                           |             |                   |
| Center contact captivation                                                                                                                                                                                                                                                                                                                   |          | ≥ 20 N                                              |          |                                                                              |                           |             |                   |
| Coupling test torque RPC-2.92                                                                                                                                                                                                                                                                                                                |          | 1.70 Nm                                             |          |                                                                              |                           |             |                   |
| Recommended torque RPC-2.92                                                                                                                                                                                                                                                                                                                  |          | 0.80 Nm to 1.10 Nm                                  |          |                                                                              |                           |             |                   |
| Mini-Coax                                                                                                                                                                                                                                                                                                                                    |          |                                                     |          |                                                                              |                           |             |                   |
| Engagement and disengagement force                                                                                                                                                                                                                                                                                                           |          | 1 N to 4 N                                          |          |                                                                              |                           |             |                   |
| <b>Environmental data</b>                                                                                                                                                                                                                                                                                                                    |          |                                                     |          |                                                                              |                           |             |                   |
| Temperature range                                                                                                                                                                                                                                                                                                                            |          | -40°C to +85°C                                      |          |                                                                              |                           |             |                   |
| Thermal shock                                                                                                                                                                                                                                                                                                                                |          | MIL-STD-202, Method 107, Condition B                |          |                                                                              |                           |             |                   |
| Corrosion                                                                                                                                                                                                                                                                                                                                    |          | MIL-STD-202, Method 101, Condition B                |          |                                                                              |                           |             |                   |
| Vibration                                                                                                                                                                                                                                                                                                                                    |          | MIL-STD-202, Method 204, Condition D                |          |                                                                              |                           |             |                   |
| Shock                                                                                                                                                                                                                                                                                                                                        |          | MIL-STD-202, Method 213, Condition I                |          |                                                                              |                           |             |                   |
| Moisture resistance                                                                                                                                                                                                                                                                                                                          |          | MIL-STD-202, Method 106                             |          |                                                                              |                           |             |                   |
| RoHS                                                                                                                                                                                                                                                                                                                                         |          | compliant                                           |          |                                                                              |                           |             |                   |
| <b>Tooling</b>                                                                                                                                                                                                                                                                                                                               |          |                                                     |          |                                                                              |                           |             |                   |
|                                                                                                                                                                                                                                                                                                                                              |          | N/A                                                 |          |                                                                              |                           |             |                   |
| <b>Weight</b>                                                                                                                                                                                                                                                                                                                                |          |                                                     |          |                                                                              |                           |             |                   |
| Weight                                                                                                                                                                                                                                                                                                                                       |          | 7.9 g/pce                                           |          |                                                                              |                           |             |                   |
| 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. |          |                                                     |          |                                                                              |                           |             |                   |
| Draft                                                                                                                                                                                                                                                                                                                                        | Date     | Approved                                            | Date     | Rev.                                                                         | Engineering change number | Name        | Date              |
| O.Krautenbacher                                                                                                                                                                                                                                                                                                                              | 07/03/13 | Martin Moder                                        | 10/01/17 | 400                                                                          | 16-2008                   | Manfred Ruf | 10/01/17          |
| Rosenberger Hochfrequenztechnik GmbH & Co. KG<br>P.O.Box 1260 D-84526 Tittmoning Germany<br>www.rosenberger.de                                                                                                                                                                                                                               |          |                                                     |          | Tel. : +49 8684 18-0<br>Fax : +49 8684 18-499<br>Email : info@rosenberger.de |                           |             | Page<br><br>2 / 2 |