

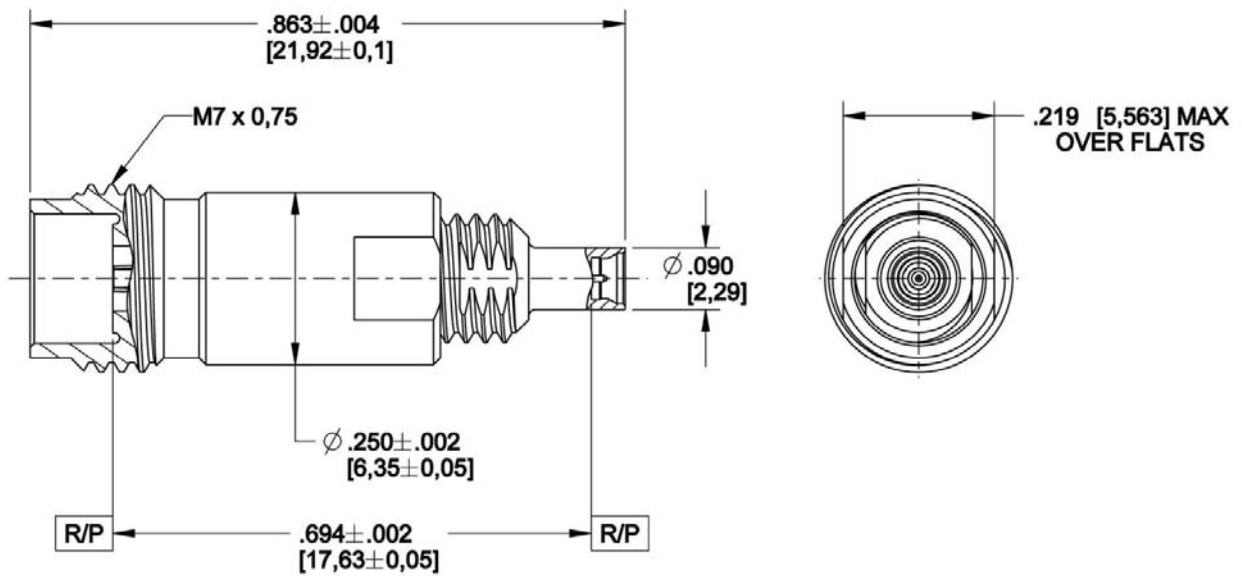
# Technical Data Sheet

# Rosenberger

WSMP

Male Full Detent to 2.4mm  
Female Test Adapter

W1S109-K00S3



All dimensions are in inches [mm]

### Interface

According to

Rosenberger WSMP™ Interface standards

### Material and plating

#### Connector parts

WSMP (M) and 2.4mm Body  
Contact

#### Material

Stainless Steel  
CuBe

#### Plating

Passivated  
Hard gold 50µIN [1,27µm] min over  
Nickel 50µIN [1,27µm] min

Dielectric  
Dielectric

PTFE  
Ultem® 1000

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## Electrical data

|                                  |  |
|----------------------------------|--|
| Impedance                        | 50 Ω   |
| Frequency                        | DC to 50 GHz                                   |
| Return loss (typical)            | ≥ 26 dB, DC to 40 GHz<br>≥ 19 dB, 40 to 50 GHz |
| Insertion loss                   | ≤ 0.12 x √f(GHz)dB                             |
| Insulation resistance            | ≥ 3.5 x10 <sup>3</sup> MΩ                      |
| Center contact resistance        | ≤ 2.0 mΩ                                       |
| Outer contact resistance         | ≤ 6.0 mΩ                                       |
| Test voltage (at sea level)      | 250 V rms                                      |
| RF High Potential (at sea level) | 150 V rms @ 5 MHz                              |
| RF-leakage                       | ≥ -80 dB @ 3 GHz (typical mated pair)          |

## Mechanical data

|                               |                             |
|-------------------------------|-----------------------------|
| Mating cycles                 |                             |
| - Full Detent                 | ≥ 100                       |
| - Smooth Bore                 | ≥ 500                       |
| - Ultra Smooth Bore           | ≥ 500                       |
| Engagement force (typical)    |                             |
| - Full Detent                 | 2.5 lb <sub>f</sub> [11 N]  |
| - Smooth Bore                 | 1.2 lb <sub>f</sub> [5.3 N] |
| - Ultra Smooth Bore           | 1.0 lb <sub>f</sub> [4.5 N] |
| Disengagement force (typical) |                             |
| - Smooth Bore                 | 4.5 lb <sub>f</sub> [20 N]  |
| - Smooth Bore                 | 1.0 lb <sub>f</sub> [4.5 N] |
| - Ultra Smooth Bore           | 1.0 lb <sub>f</sub> [4.5 N] |

## Environmental data

|                           |   |
|---------------------------|---|
| Temperature range         | -55°C to +165°C                             |
| Thermal shock             | MIL-STD-202, Method 107, Condition B        |
| Corrosion                 | MIL-STD-202, Method 101                     |
| Vibration                 | MIL-STD-202, Method 204, Condition D        |
| Shock                     | MIL-STD-202, Method 213, Condition I        |
| Moisture resistance       | MIL-STD-202, Method 106, except Step 7B     |
| Max soldering temperature | IEC 61760-1, +500°F [+260°C] for 10 seconds |
| 2002/95/EC (RoHS)         | compliant                                   |

## Tooling

|                 |     |
|-----------------|-----|
| Extraction tool | N/A |
|-----------------|-----|

## Suitable cables

N/A

## Packing

|          |           |
|----------|-----------|
| Standard | 1 per box |
|----------|-----------|

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RF\_35/05.10/6.0

| Draft   | Date       | Approved  | Date       | Rev.  | Engineering change number | Name      | Date          |
|---|------------|-----------|------------|---|---------------------------|-----------|---------------|
| R. Hosler   | 07/25/2014 | M. Peeran | 07/25/2014 | a01   | ECN 14-0001               | M. Peeran | 07/25/2014    |
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