

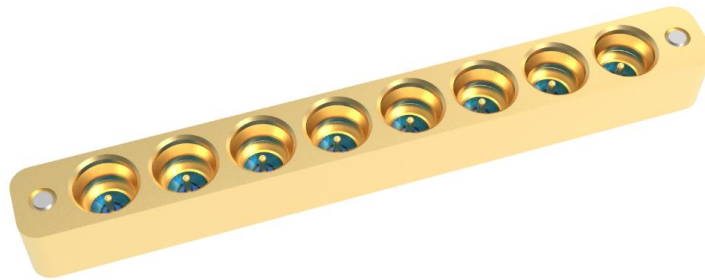
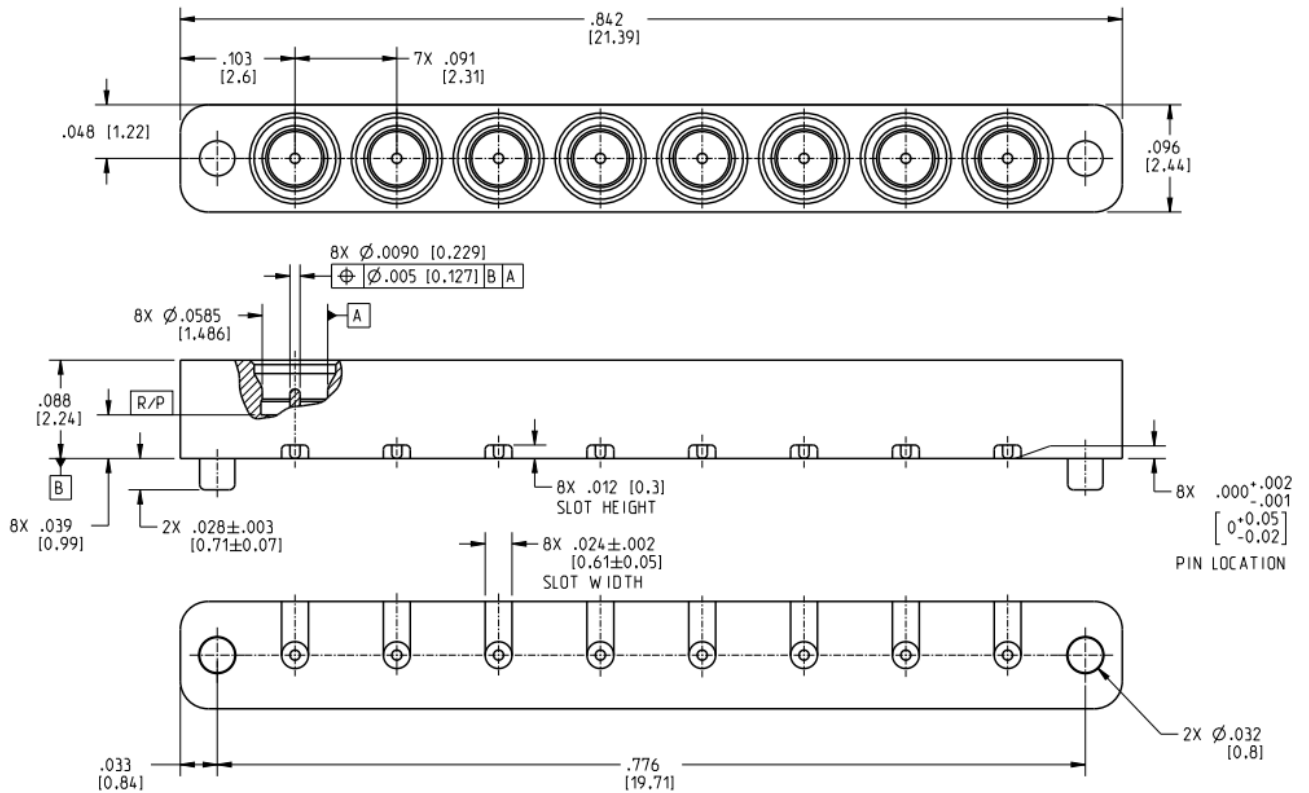
# Technical Data Sheet

# Rosenberger

WSMP

Male, Full Detent, High Frequency, 1 X 8 Port, SMT Shroud

W1S12M-40ML5



All dimensions are in inches [mm]  
 Unless otherwise specified tolerances are as follows:  
 .XXX $\pm$ .001 [0,025]; .XXXX $\pm$ .0005 [0,012]

## Interface

According to

Rosenberger WSMP™ Interface standards

## Material and plating

### Connector parts

Body and Contact

Dielectric

Alignment Pin

### Material

KOVAR® per ASTM F15

Corning 7070 Glass

SST per ASTM A582

### Plating

Hard Gold, 6  $\mu$ N [0,15  $\mu$ m] over Nickel

Passivated

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### Electrical data (@ STP unless otherwise specified)

|                           |  |
|---------------------------|--|
| Impedance                 | 50 Ω   |
| Frequency                 | DC to 100 GHz  |
| Return loss               | ≥ 18 dB, DC to 40 GHz<br>≥ 15 dB, 40 to 70 GHz<br>≥ 12 dB, 70 to 100 GHz |
| Insertion loss            | ≤ 0.12 x √f (GHz) dB   |
| Insulation resistance     | ≥ 3.5 GΩ   |
| Center contact resistance | ≤ 6.0 mΩ   |
| Outer contact resistance  | ≤ 2.0 mΩ   |
| Test voltage              | 250 V rms  |
| RF High Potential         | 150 V rms @ 5 MHz  |

### Mechanical data

|                     |                    |
|---------------------|--------------------|
| Mating cycles       |                    |
| - Full Detent       | ≥ 100              |
| Engagement force    |                    |
| - Full Detent       | 2.5 lbf [11 N] max |
| Disengagement force |                    |
| - Full Detent       | 4.5 lbf [20 N] min |

### Environmental data

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

### Documents

|                       |           |
|-----------------------|-----------|
| Mechanical PCB Layout | MB_W1S15M |
|-----------------------|-----------|

### Packing

Standard

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OSR-730-05  
RNA Datasheet2 Rev -  
6/26/19

| Draft   | Date     | Approved | Date     | Rev. | Engineering change number   | Name     | Date          |
|---|----------|----------|----------|------|---|----------|---------------|
| D. Fitzkee  | 07/29/19 | B. Moyer | 07/29/19 | a01  | Revised per ECN 20-u187   | B. Moyer | 07/17/20      |
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