

## SWC-19VF-R1 and SWC-19VM-R1

### U-Band Waveguide to 1.85mm Connector Adapter, Right Angle

**SWC-19VF-R1** and **SWC-19VM-R1** are right angle (90°) U-Band waveguide to coax adapters that cover the frequency range of 40 to 60 GHz. They are designed and manufactured for instrumentation grade quality but offered at a commercial grade price, allowing for an efficient transition between the rectangular waveguide and 1.85 mm (V) coax connector. The end launch (180°) versions are offered under model numbers **SWC-19VF-E1** and **SWC-19VM-E1**.



#### Electrical Specifications:

| Parameter                 | Minimum | Typical | Maximum   |
|---------------------------|---------|---------|-----------|
| Frequency Range           | 40 GHz  |         | 60 GHz    |
| Insertion Loss            |         | 0.5 dB  | 0.8 dB    |
| Return Loss               | 16 dB   | 18 dB   |           |
| Power Handling            |         |         | 40 W (CW) |
| Specification Temperature |         | +25 °C  |           |
| Operating Temperature     | -40 °C  |         | +85 °C    |

#### Mechanical Specifications:

| Item           | Specification                                    |
|----------------|--|
| Waveguide Port | WR-19 with UG-383/U-M Anti-Cocking Flange        |
| Coaxial Port   | 1.85 mm (V) Female for Model Number: SWC-19VF-R1 |
|                | 1.85 mm (V) Male for Model Number: SWC-19VM-R1   |
| Material       | Aluminum   |
| Finish         | Gold Plated                                      |
| Weight         | 0.4 Oz   |
| Outline        | WC-UR-A  |

#### ECCN

EAR99

#### FEATURES

- Broad Band Coverage
- Lower Insertion Loss and VSWR
- Instrumentation Grade
- DC Open Circuit

#### APPLICATIONS

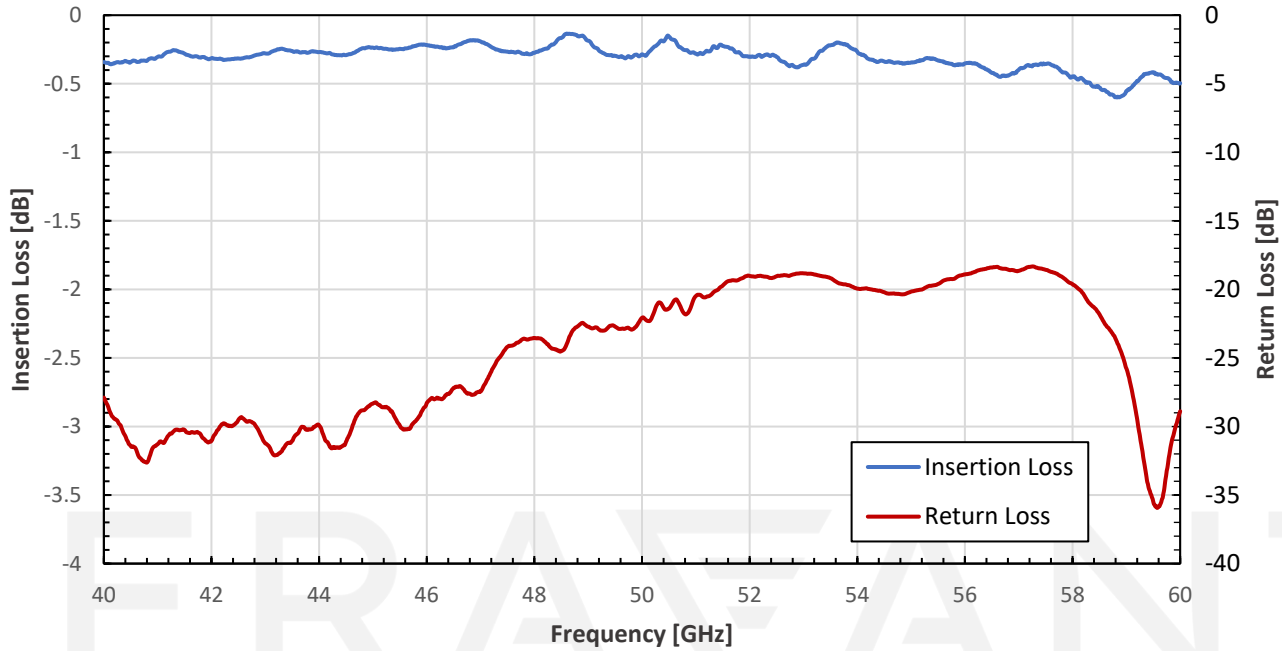
- Test Lab
- Instrumentations
- Sub-assemblies

#### SUPPLEMENTAL DETAILS



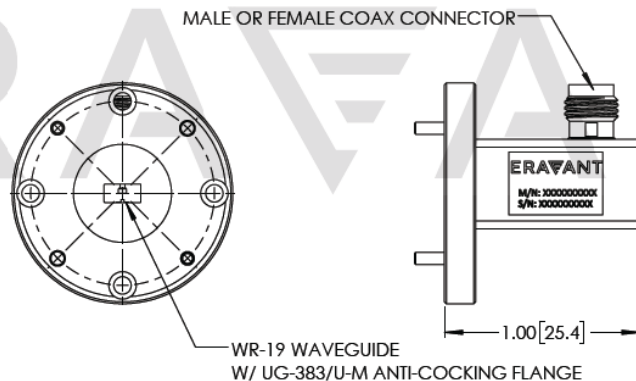
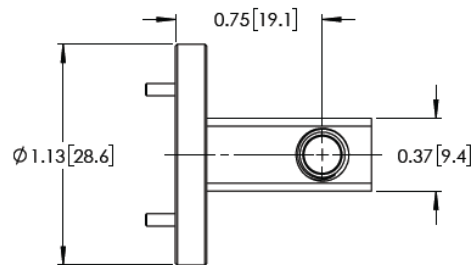
## SWC-19VF-R1 and SWC-19VM-R1

### Typical Measured Performance vs. Frequency



### Mechanical Outline:

Unless otherwise specified, all dimensions are in inches [millimeters]



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**NOTE:**

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.

**CAUTION:**

- Any foreign objects in the waveguide will cause performance degradation and possible device damage.
- For 1 mm connectors proper torque should be applied:  $4.0 \pm 0.15$  inch-pounds ( $0.45 \pm 0.02$  Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied:  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm). Torque wrench model SCH-08008-S1 is highly recommended

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