



## Ka-Band Waveguide to 2.4 mm Connector Adapter, Right Angle

### Description:

Models SWC-282F-R1 and SWC-282M-R1 are right angle (90°) Ka-Band waveguide to 2.4 mm coax adapters that cover the frequency range of 26.5 to 40 GHz. They are designed and manufactured for instrumentation grade quality but offered at a commercial grade price, allowing efficient transition between the rectangular waveguide and 2.4 mm coax connector. The end launch (180°) versions are offered under model numbers SWC-282F-E1 and SWC-282M-E1.



### Features:

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

### Applications:

- Test Lab
- Instrumentations
- Sub-assemblies

### Electrical Specifications:

| Parameter                 | Minimum  | Typical | Maximum   |
|---------------------------|----------|---------|-----------|
| Frequency Range           | 26.5 GHz |         | 40.0 GHz  |
| Insertion Loss*           |          | 0.35 dB | 0.50 dB   |
| Return Loss               | 17 dB    | 20 dB   |           |
| Power Handling            |          |         | 40 W (CW) |
| Specification Temperature |          | +25 °C  |           |
| Operating Temperature     | -40 °C   |         | +85 °C    |

\*Insertion loss is tested back to back with a male and female adapter, the result is divided by 2.

### Mechanical Specifications:

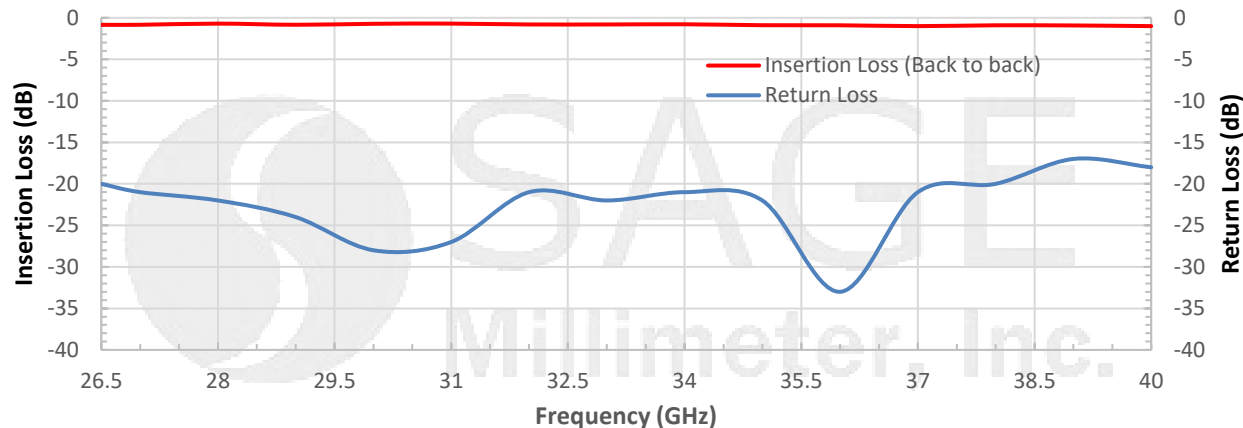
| Item             | Parameter                                   |
|------------------|---|
| Waveguide        | WR-28 with UG599/U Flange                   |
| Coaxial          | 2.4 mm Female for Model Number: SWC-282F-R1 |
| Coaxial          | 2.4 mm Male for Model Number: SWC-282M-R1   |
| Size             | 1.00" (L) x 0.75" (S)                       |
| Housing Material | Aluminum                                    |
| Finish           | Gold Plated                                 |
| Weight           | 0.36 Oz                                     |
| Outline          | WC-AR                                       |



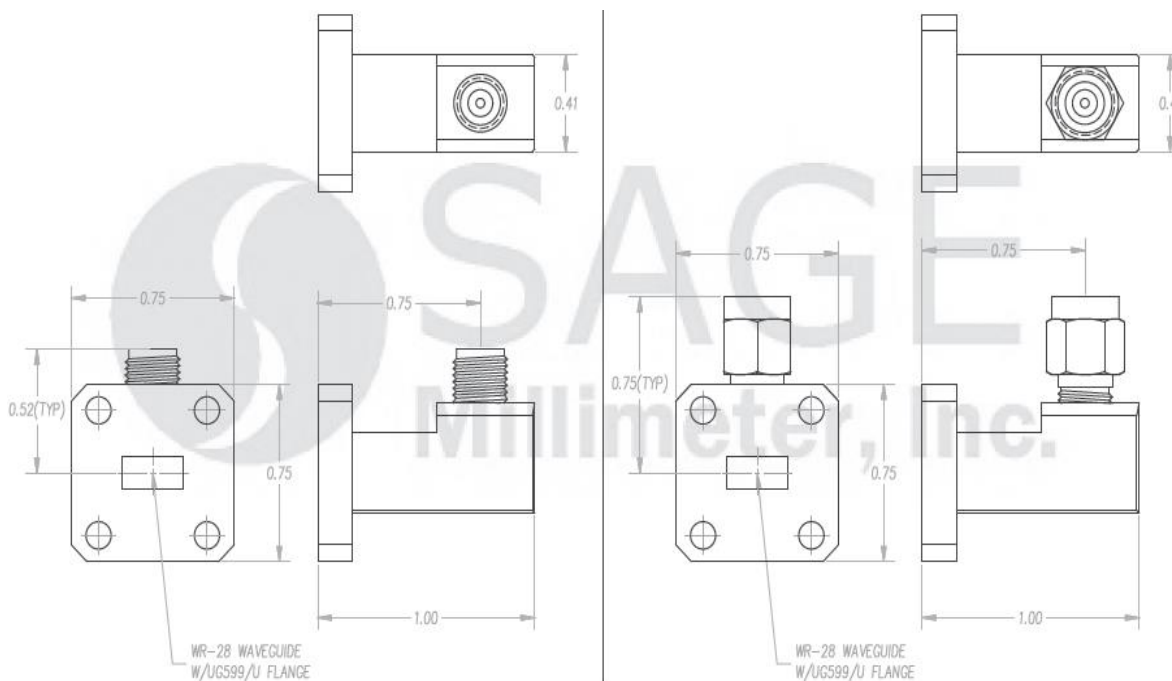


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Typical Return Loss & Back to Back Insertion Loss vs. Frequency



**Mechanical Outline:** (Unless otherwise specified, all dimensions are in inches)



**Note:**

- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25 °C case temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

**Caution:**

- Any foreign objects in the waveguide will cause performance degradation and may damage the adapter.
- Proper torque,  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**



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