



V-Band Waveguide to 1 mm Connector Adapter, End Launch

Description:

Models **SWC-151F-E1** and **SWC-151M-E1** are end launch (180°) V-Band waveguide to coax adapters that cover the frequency range of 50 to 75 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 mm coax connector. The right angle (90°) versions are offered under model numbers SWC-151F-R1 and SWC-151M-R1.



Features:

- Full Waveguide Band Coverage
- Lower Insertion Loss and VSWR
- Instrumentation Grade
- DC Short Circuit

Applications:

- Test Lab
- Instrumentations
- Sub-assemblies

Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---------------------------|---------|---------|-----------|
| Frequency Range | 50 GHz | | 75 GHz |
| Insertion Loss* | | 0.7 dB | 1.0 dB |
| Return Loss | 12 dB | 15 dB | |
| Power Handling | | | 10 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:

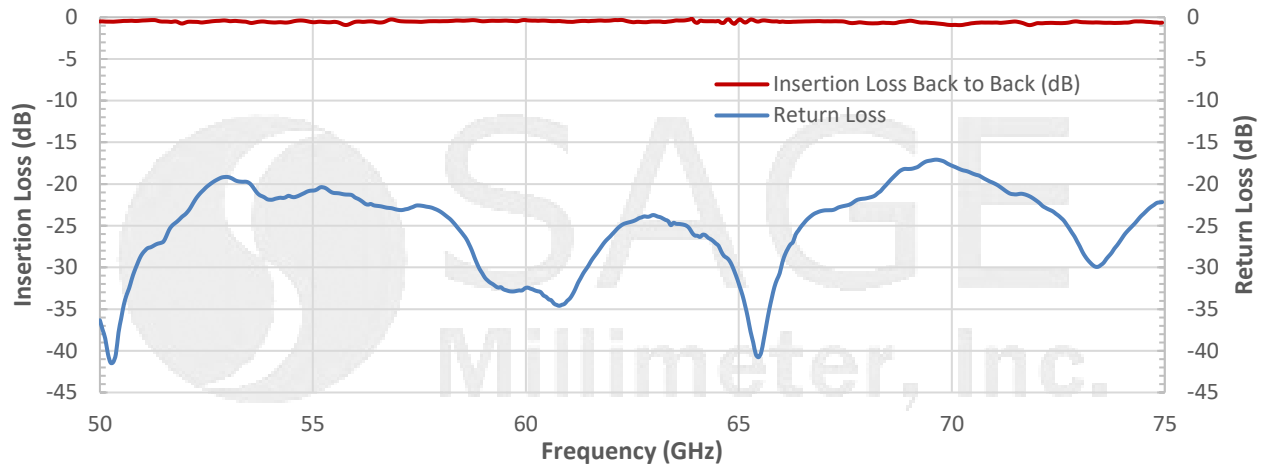
| Item | Parameter |
|------------------|---|
| Waveguide | WR-15 with UG-385/U Flange |
| Coaxial | 1 mm Female for Model Number: SWC-151F-E1 |
| Coaxial | 1 mm Male for Model Number: SWC-151M-E1 |
| Housing Material | Aluminum |
| Finish | Gold Plated |
| Weight | 0.3 Oz |
| Size | 0.45" (L) x 0.75" (Ø) |
| Outline | WC-V1E |



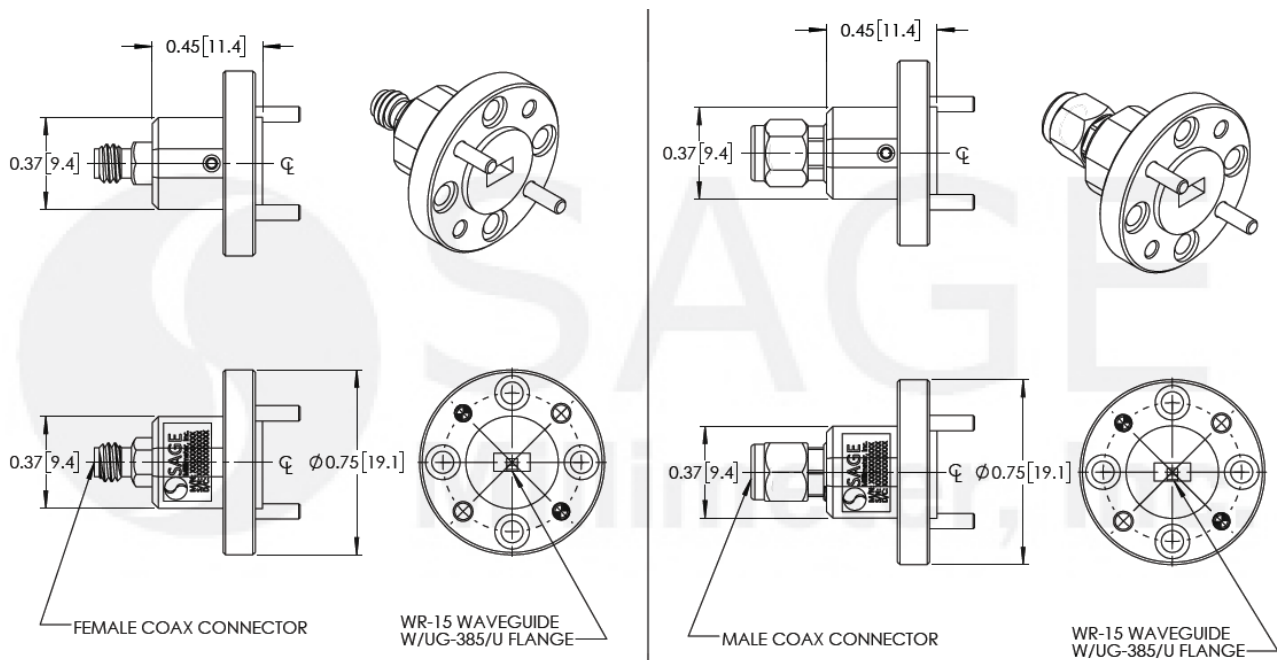


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Typical Return Loss & Back to Back Insertion Loss vs. Frequency



Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



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, 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm), should be used. **SAGE Millimeter torque wrench, model SCH-06004-S1, is highly recommended.**

