

## W-Band Waveguide to 1.0 mm Connector Adapter, Right Angle

### Description:

Models SWC-101F-R1-WP and SWC-101M-R1-WP are right angle (90°) W-Band waveguide to coax adapters that cover the frequency range of 75 to 110 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 1.0 mm coax connector. The end launch (180°) versions are offered under model numbers SWC-101F-E1 and SWC-101M-E1.



### Features:

- Full Waveguide 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	75 GHz		110 GHz
Insertion Loss*		1.2 dB	1.5 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.

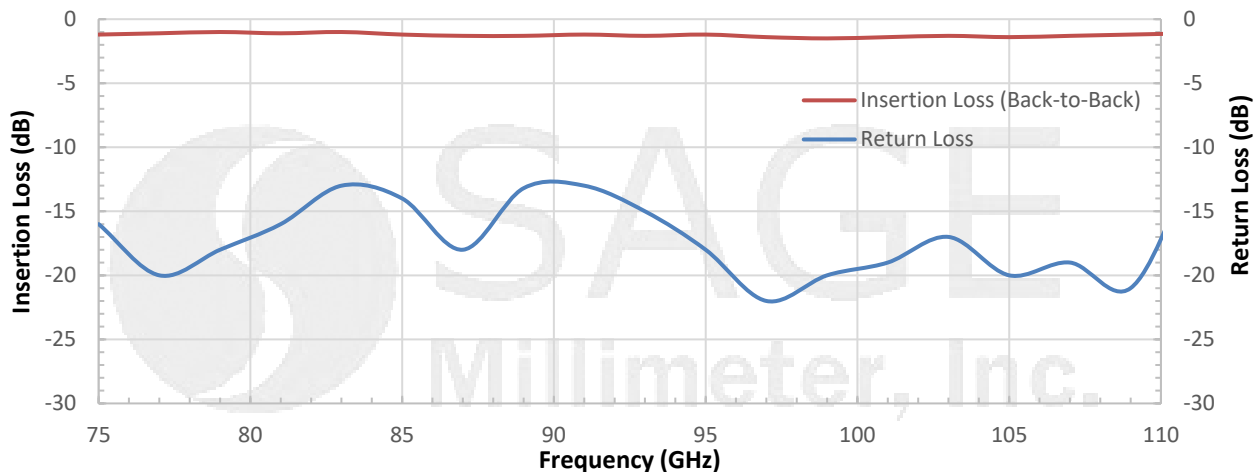
### Mechanical Specifications:

Item	Parameter
Waveguide	WR-10 with UG387/U-M Flange
Coaxial	1.0 mm Female for Model Number: SWC-101F-R1-WP
Coaxial	1.0 mm Male for Model Number: SWC-101M-R1-WP
Size	1.00" (L) x 0.75" (D)
Housing Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Outline	WC-WR

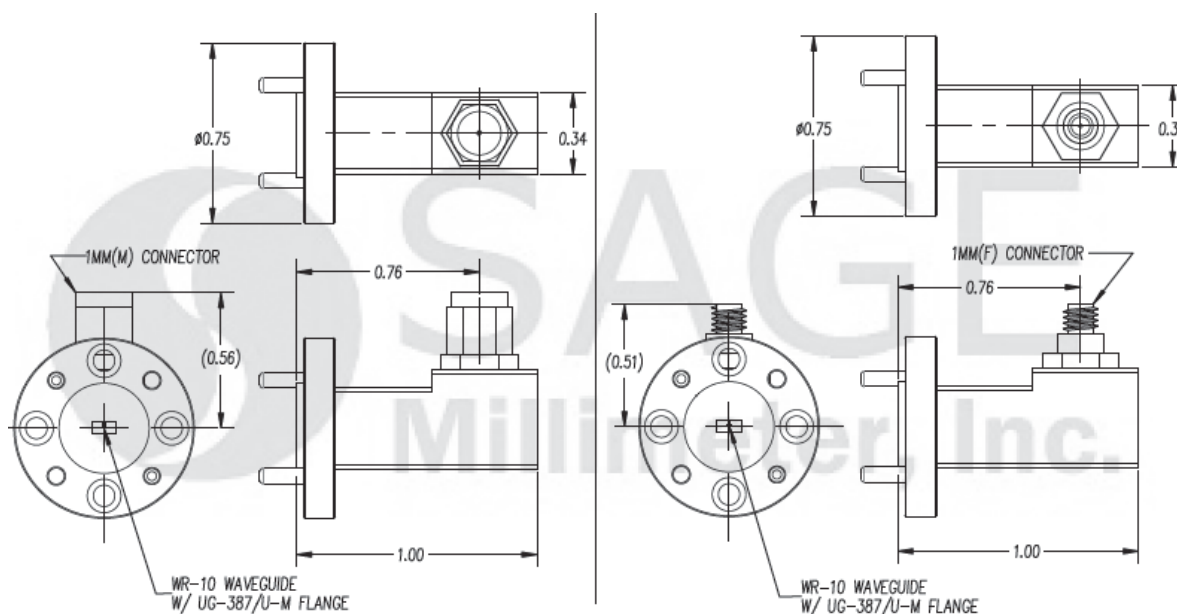


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### Typical Return Loss and Back-to-Back Insertion Loss vs. Frequency



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

