



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

### Description:

Models SWC-12VF-R1 and SWC-12VM-R1 are right angle (90°) E-Band waveguide to coax adapters that cover the frequency range of 60 to 72 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 coax connector. The end launch (180°) versions are offered under model numbers SWC-12VF-E1 and SWC-12VM-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	60 GHz		72 GHz
Insertion Loss*		0.8 dB	1.2 dB
Return Loss	12 dB	14 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:

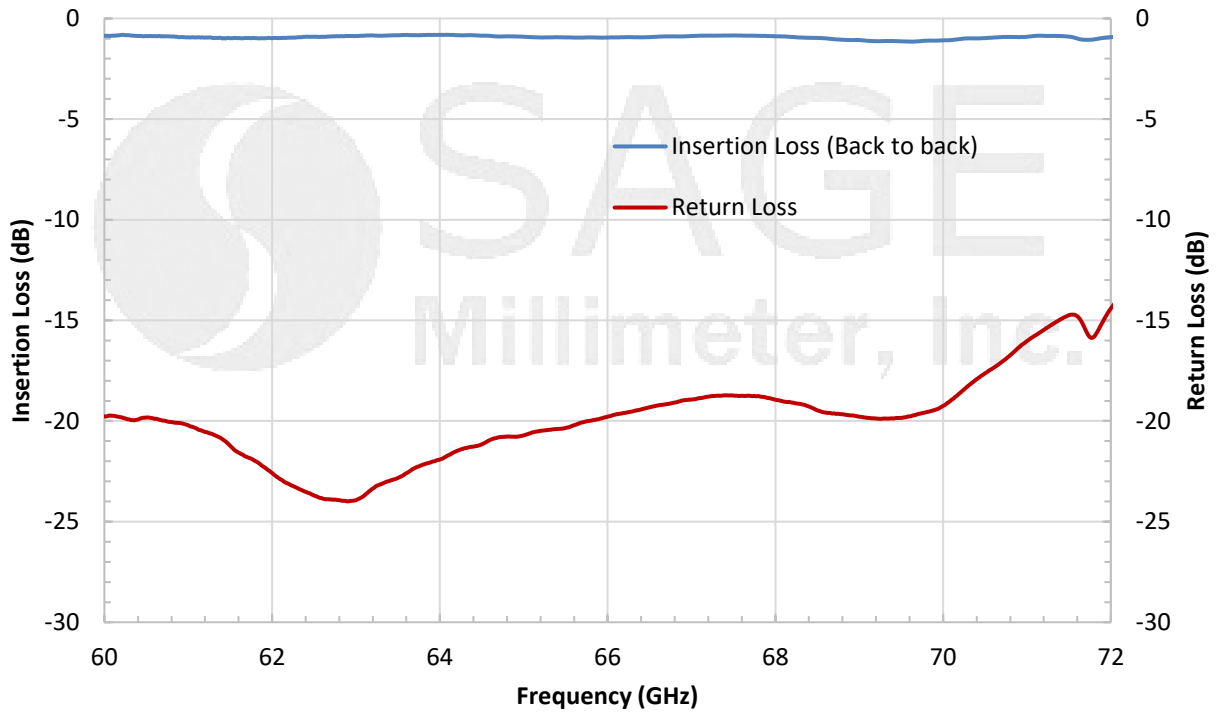
Item	Specification
Waveguide	WR-12 with UG-387/U Flange
Coaxial	1.85 mm (V) Female for Model Number: SWC-12VF-R1
Coaxial	1.85 mm (V) Male for Model Number: SWC-12VM-R1
Size	1.05" (L) x 0.75" (D)
Housing Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Outline	WC-EVR



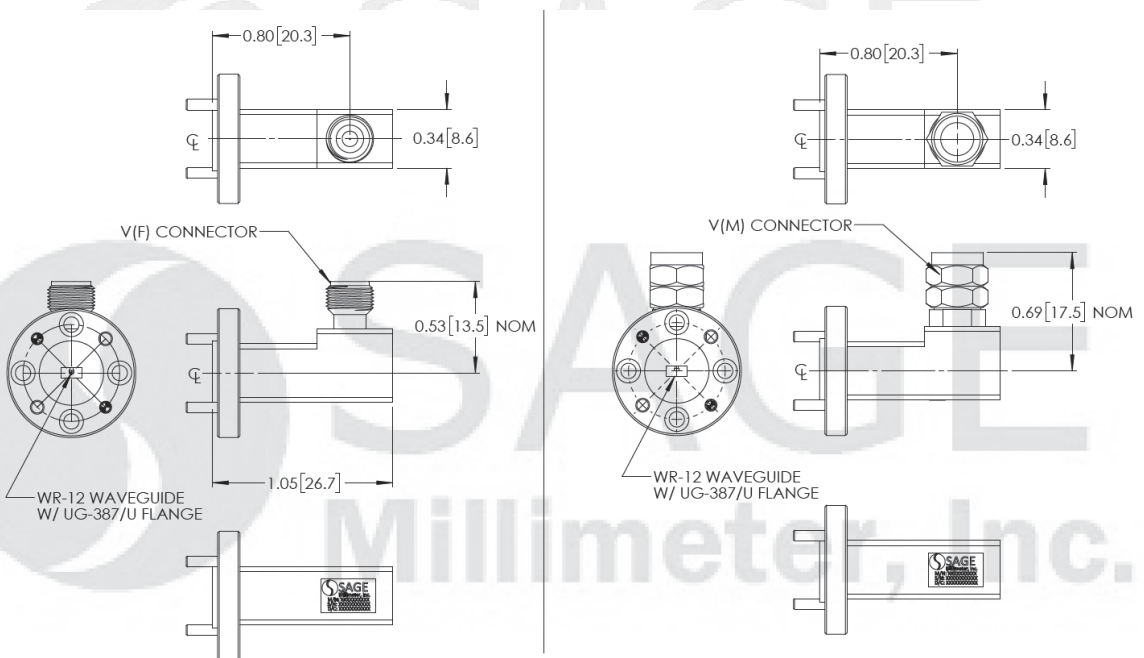


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### Typical Performance vs. Frequency



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





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### 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-U3, is highly recommended.**

