



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

### Description:

Models SWC-15VF-R1 and SWC-15VM-R1 are right angle (90°) V-Band waveguide to coax adapters that cover the frequency range of 50 to 70 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-15VF-E1 and SWC-15VM-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	50 GHz		70 GHz*
Insertion Loss		0.5 dB	
Return Loss		16 dB	
Power Handling			40 W (CW)
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

\* The adapter can cover up to 75 GHz with slight performance degradation due to the frequency limitations of the 1.85 mm (V) coaxial connector.

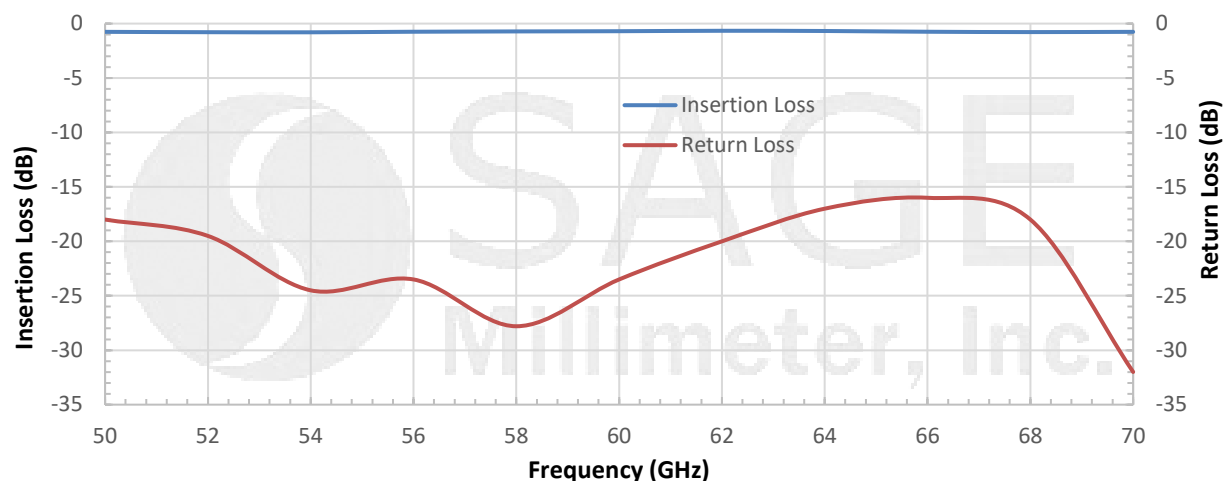
### Mechanical Specifications:

Port	Connector
Waveguide	WR-15 with UG385/U Flange
Coaxial	1.85 mm (V) Female for Model Number: SWC-15VF-R1
Coaxial	1.85 mm (V) Male for Model Number: SWC-15VM-R1
Size	1.05" (L) x 0.75" (D)
Housing Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Outline	WC-VR

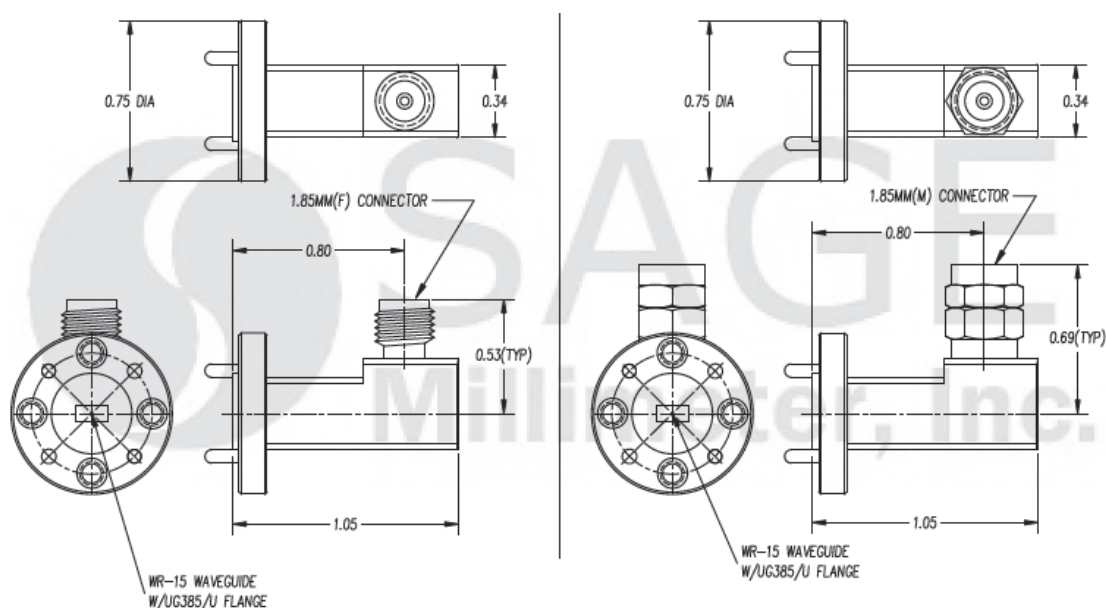


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### Typical Insertion Loss and Return Loss vs. Frequency (Back to Back)



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



**Note:**

- All data are presented using a limited sample lot, actual data may vary unit to unit.
- 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.**

