



V-Band Waveguide to 1.85mm Connector Adapter, Right Angle, Thermal Vacuum Safe

Description:

Models **SWC-15VF-R1-V** and **SWC-15VM-R1-V** 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 and thermal vacuum compatibility, 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-V** and **SWC-15VM-E1-V**.



Features:

- Thermal Vacuum Safe
- Broad Band Coverage
- Lower Insertion Loss
- Instrumentation Grade
- DC Short Circuit

Applications:

- Thermal Vacuum Chamber
- Test Lab
- Instrumentation
- Sub-assemblies

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	50 GHz		70 GHz*
Insertion Loss		0.7 dB	1.0 dB
Return Loss	13 dB	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.

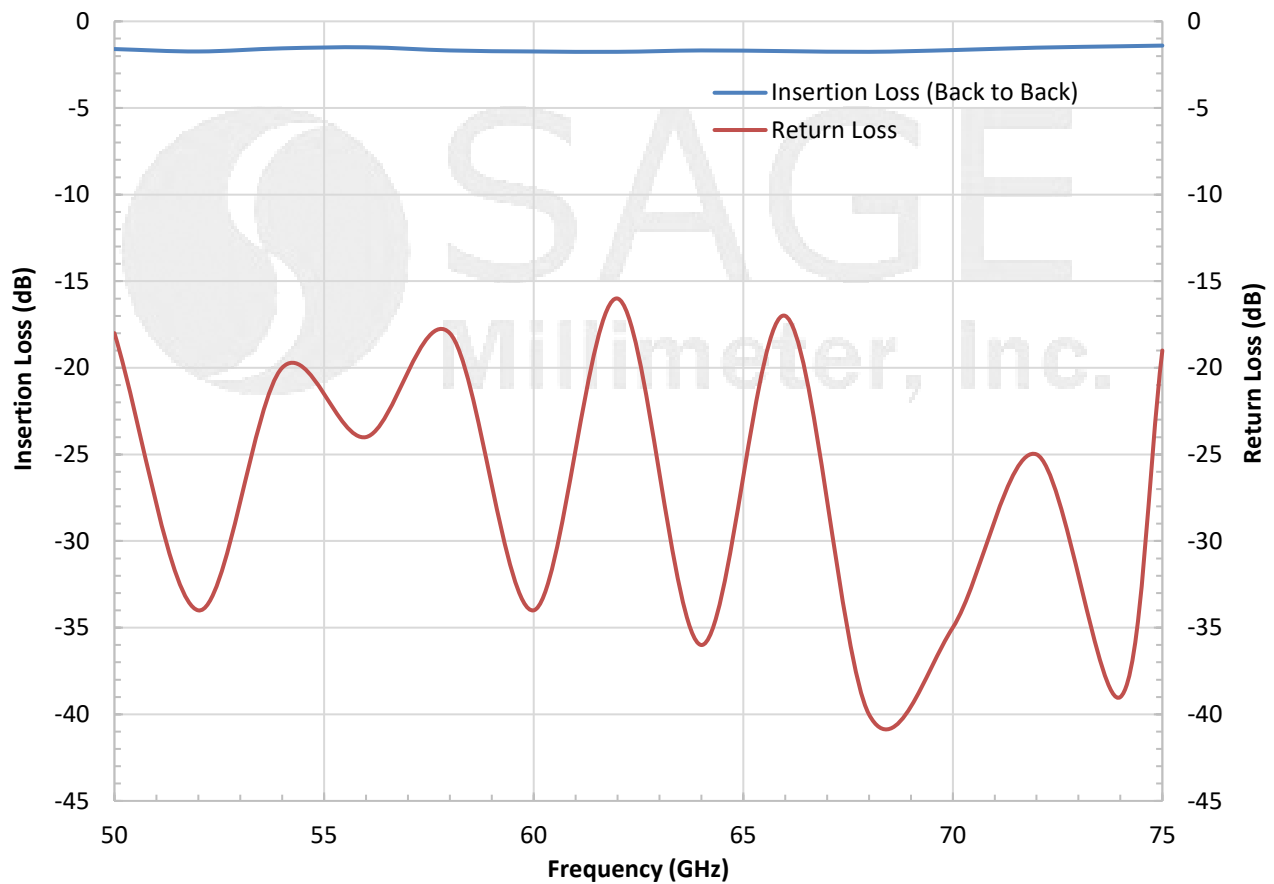
Mechanical Specifications:

Item	Parameter
Waveguide Port	WR-15 Waveguide with UG-385/U Flange
Coaxial Port	1.85 mm (V) Female for Model Number: SWC-15VF-R1-V
	1.85 mm (V) Male for Model Number: SWC-15VM-R1-V
Material	Aluminum
Finish	Gold Plated
Weight	0.2 oz
Outline	WC-VR

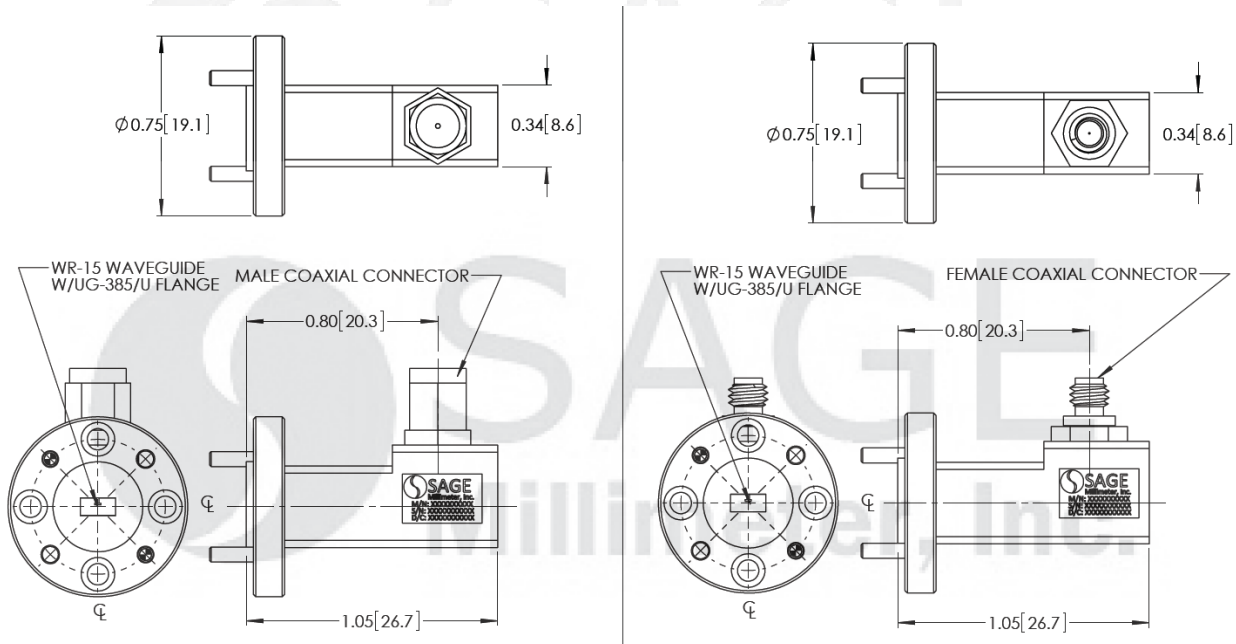


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Typical Return Loss and Back to Back Insertion Loss vs. Frequency



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



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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 antenna will cause performance degradation and possible device damage.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

