



## V-Band Waveguide to 1.85mm Adapter, End Launch, Anti-Cocking Flange

### Description:

Models SWC-15VF-E1-A and SWC-15VM-E1-A are end launch (180°) 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 adapters are also designed with anti-cocking flanges to enhance waveguide interface contact and reduce leakage. The right angle (90°) versions are offered under model numbers SWC-15VF-R1-A and SWC-15VM-R1-A.



### Features:

- Broad Band Coverage
- Lower Insertion Loss and VSWR
- Instrumentation Grade
- DC Short Circuit
- Anti-Cocking Flange

### Applications:

- Test Lab
- Instrumentations
- Sub-assemblies

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	50 GHz		70 GHz*
Insertion Loss		0.7 dB	1 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:

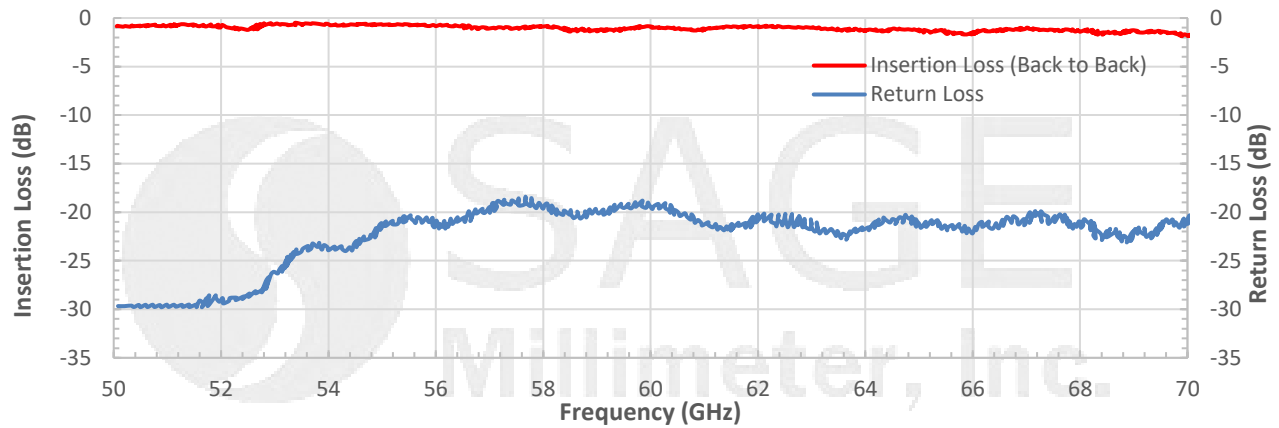
Item	Parameter
Waveguide	WR-15 with UG385/U Anti-Cocking Flange
Coaxial	1.85 mm (V) Female for Model Number: SWC-15VF-E1-A
Coaxial	1.85 mm (V) Male for Model Number: SWC-15VM-E1-A
Insertion Length	0.76" for SWC-15VF-E1-A
Insertion Length	0.81" for SWC-15VM-E1-A
Housing Material	Aluminum
Finish	Gold Plated
Weight	0.2 Oz
Outline	WC-VE-A



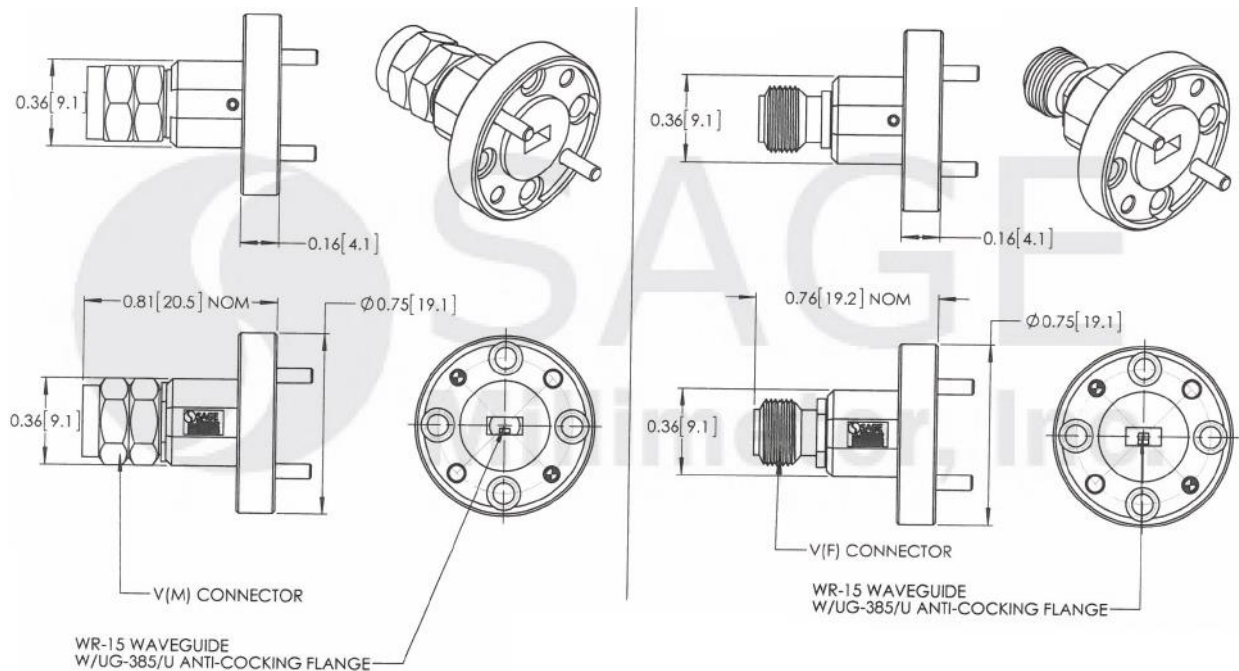
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## V-Band Waveguide to 1.85mm Adapter, End Launch, Anti-Cocking Flange

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 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 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**



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