

# V-Band Waveguide to 1 mm Connector Adapter, End Launch

#### **Description:**

Models SWC-151F-E1 and SWC-151M-E1 are end launch (180°) V-Band waveguide to coax adapters that cover the frequency range of 50 to 75 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 mm coax connector. The right angle (90°) versions are offered under model numbers SWC-151F-R1 and SWC-151M-R1.



#### **Features:**

- Full Waveguide Band Coverage
- Lower Insertion Loss and VSWR
- Instrumentation Grade
- DC Short Circuit

## **Applications:**

- Test Lab
- Instrumentations
- Sub-assemblies

### **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency Range	50 GHz		75 GHz
Insertion Loss		0.5 dB	
Return Loss		15 dB	
Power Handling	L // N	//	10 W (CW)
Specification Temperature		+25 °C	
	-40 °C		+85 °C

# **Mechanical Specifications:**

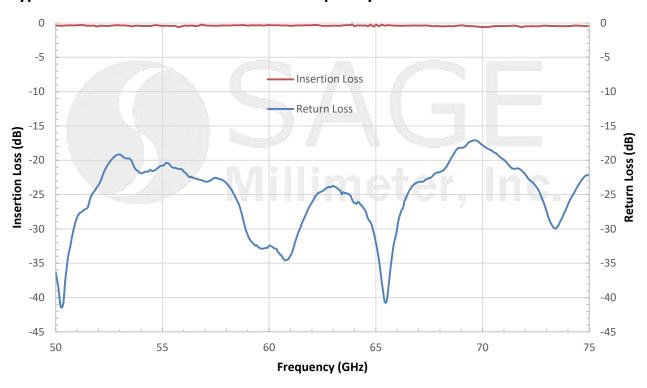
Item	Parameter	
Waveguide	WR-15 with UG-385/U Flange	
Coaxial	1 mm Female for Model Number: SWC-151F-E1	
Coaxial	1 mm Male for Model Number: SWC-151M-E1	
Housing Material	Aluminum	
Finish	Gold Plated	
Weight	0.3 Oz	
Size	0.45" (L) x 0.75" (Ø)	
Outline	WC-V1E	



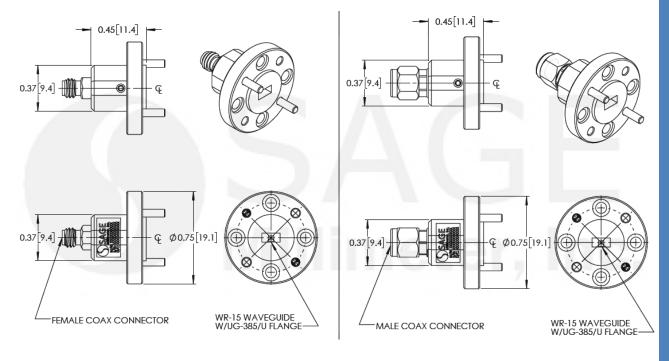
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### V-Band Waveguide to 1 mm Connector Adapter, End Launch

### Typical Insertion and Return Loss vs. Frequency



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





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





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