



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

### Description:

Models SWC-19VF-R1 and SWC-19VM-R1 are right angle (90°) U-Band waveguide to coax adapters that cover the frequency range of 40 to 60 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-19VF-E1 and SWC-19VM-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	40 GHz		60 GHz
Insertion Loss*		0.5 dB	0.8 dB
Return Loss	16 dB	18 dB	
Power Handling			40 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.

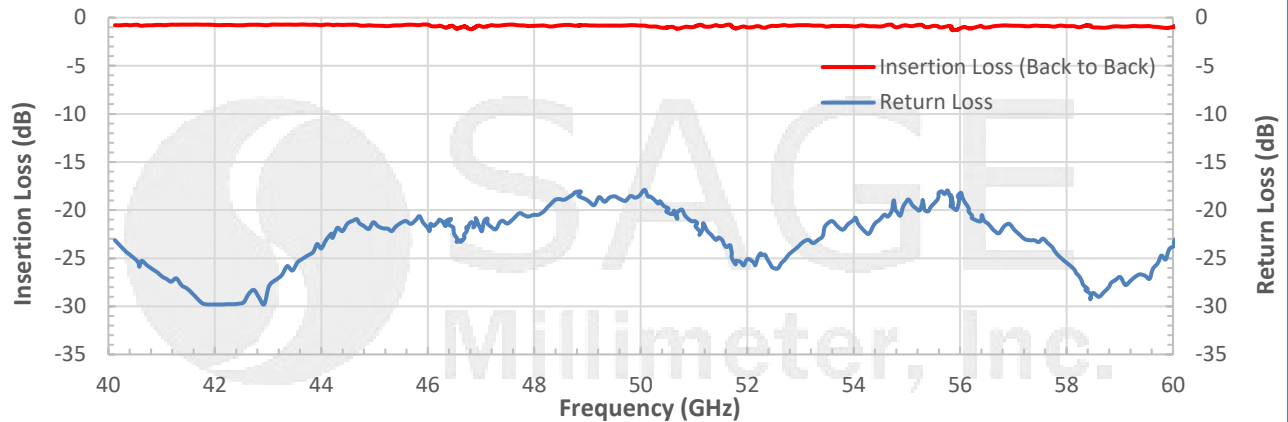
### Mechanical Specifications:

Item	Parameter
Waveguide	WR-19 with UG383/U-M Flange
Coaxial	1.85 mm (V) Female for Model Number: SWC-19VF-R1
Coaxial	1.85 mm (V) Male for Model Number: SWC-19VM-R1
Size	1.00" (L) x 1.13" (D)
Housing Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Outline	WC-UR

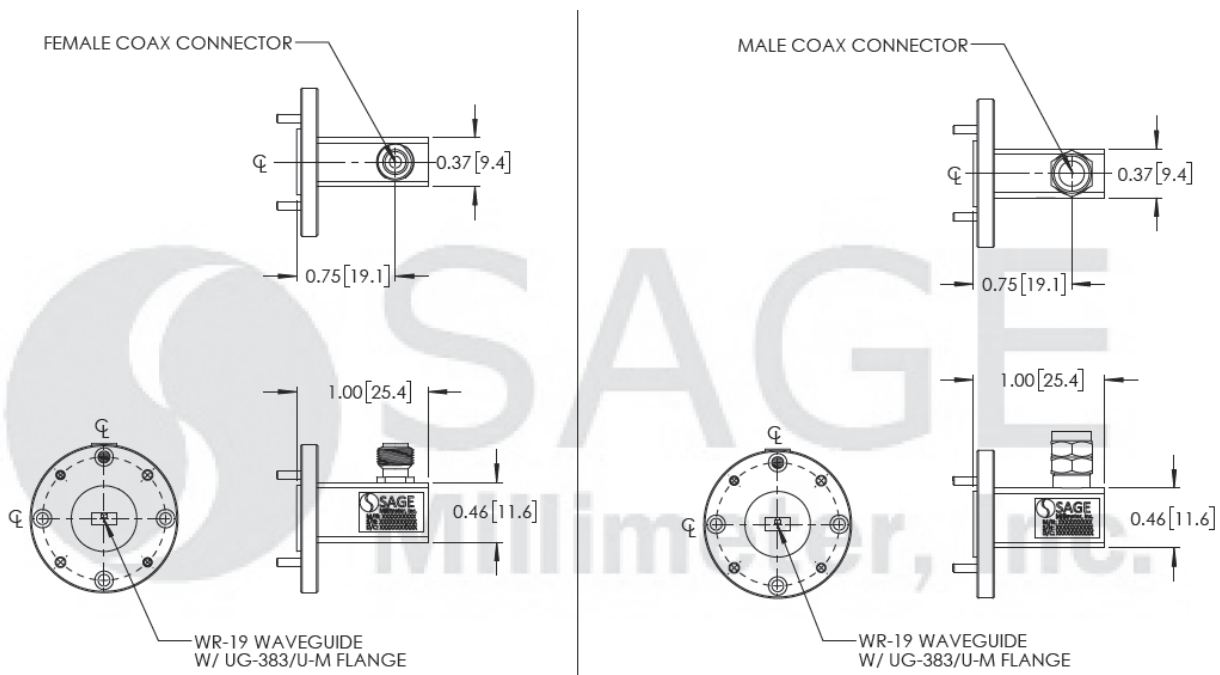


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### Typical Return Loss and Back to Back Insertion Loss vs. Frequency



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



**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-S1, is highly recommended.**



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