



Q-Band Waveguide to 2.92 mm Connector Adapter, End Launch, Thermal Vacuum Safe

Description:

Models SWC-22KF-E1-V and SWC-22KM-E1-V are end launch (180°) Q-Band waveguide to coax adapters that cover the frequency range of 33 to 43 GHz. The adapters are designed and manufactured for instrumentation grade quality and thermal vacuum compatibility (out-gassing free), allowing for an efficient transition between the rectangular waveguide and 2.92 mm (K) coax connector. The right angle (90°) versions are offered under model numbers SWC-22KF-R1-V and SWC-22KM-R1-V.



Features:

- 33 to 43 GHz Coverage
- Lower Insertion Loss and VSWR
- Instrumentation Grade
- DC Short Circuit
- Thermal Vacuum Safe

Applications:

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

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	33 GHz		43 GHz*
Insertion Loss**		0.4 dB	0.7 dB
Return Loss	16 dB	18 dB	
Power Handling			50 W (CW)
Pressure	10 ⁻⁵ hPa		
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

*Operating Frequency is limited by the 2.92 mm connector.

**Insertion loss is tested back to back with a male and female adapter, the result is divided by 2.

Mechanical Specifications:

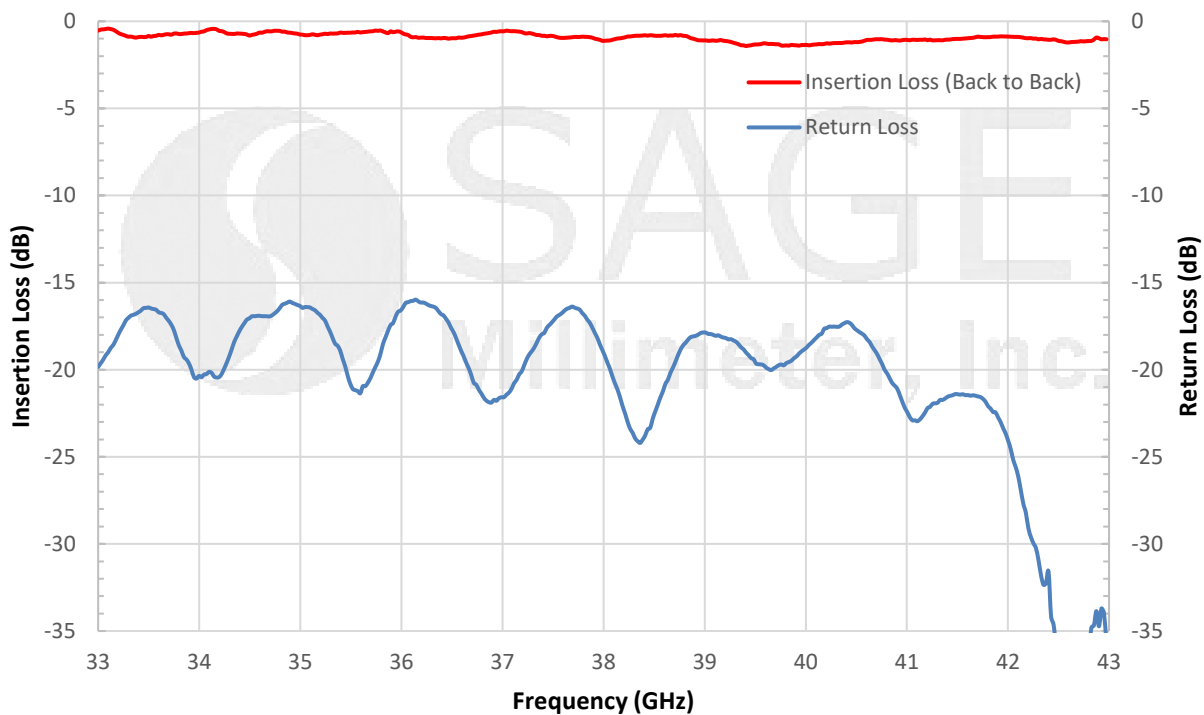
Item	Parameter
Waveguide	WR-22 with UG-383/U Flange
Coaxial	2.92 mm (K) Female for Model Number: SWC-22KF-E1-V
Coaxial	2.92 mm (K) Male for Model Number: SWC-22KM-E1-V
Size	0.87" (L) x 1.13" (Ø) for Model Number: SWC-22KF-E1-V
Size	1.04" (L) x 1.13" (Ø) for Model Number: SWC-22KM-E1-V
Housing Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Outline	WC-QE



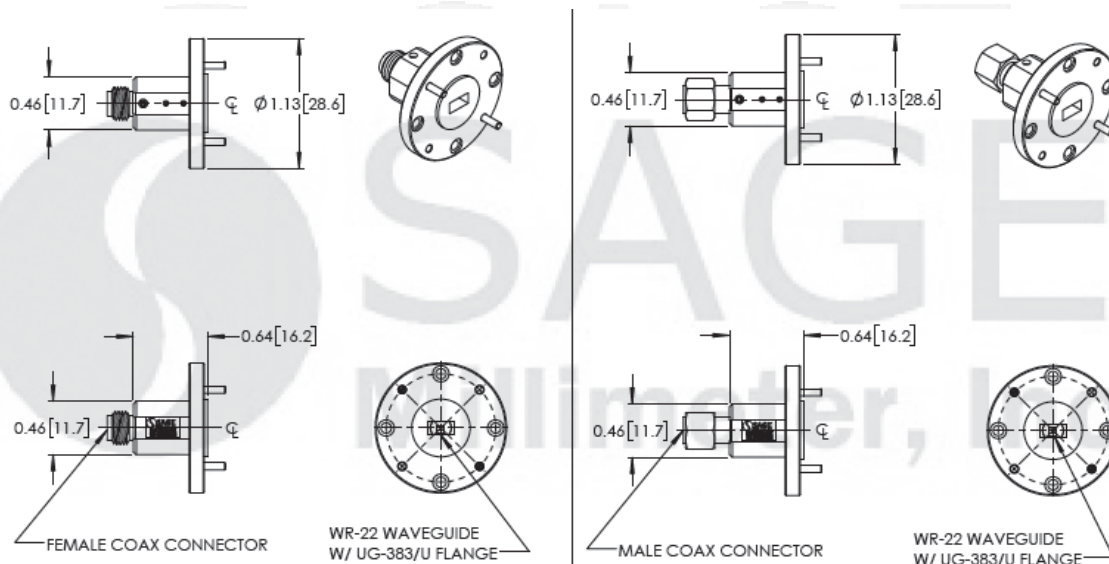
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Typical Return Loss & Back to Back Insertion Loss vs. Frequency



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.



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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.**

