



Ka-Band Waveguide to K Connector Adapter, Right Angle, Thermal Vacuum Safe

Description:

Models SWC-28KF-R1-V and SWC-28KM-R1-V are right angle (90°) Ka-Band waveguide to coax adapters that cover the frequency range of 26.5 to 40 GHz. They are designed and manufactured for instrumentation grade quality and thermal vacuum compatibility, allowing for an efficient transition between the rectangular waveguide and 2.92 mm (K) coax connector. Many connector type options, and end-launch configurations are offered under various model numbers.



Features:

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

Applications:

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

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	26.5 GHz		40.0 GHz
Insertion Loss*		0.35 dB	0.50 dB
Return Loss	17 dB	20 dB	
Power Handling			50 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.

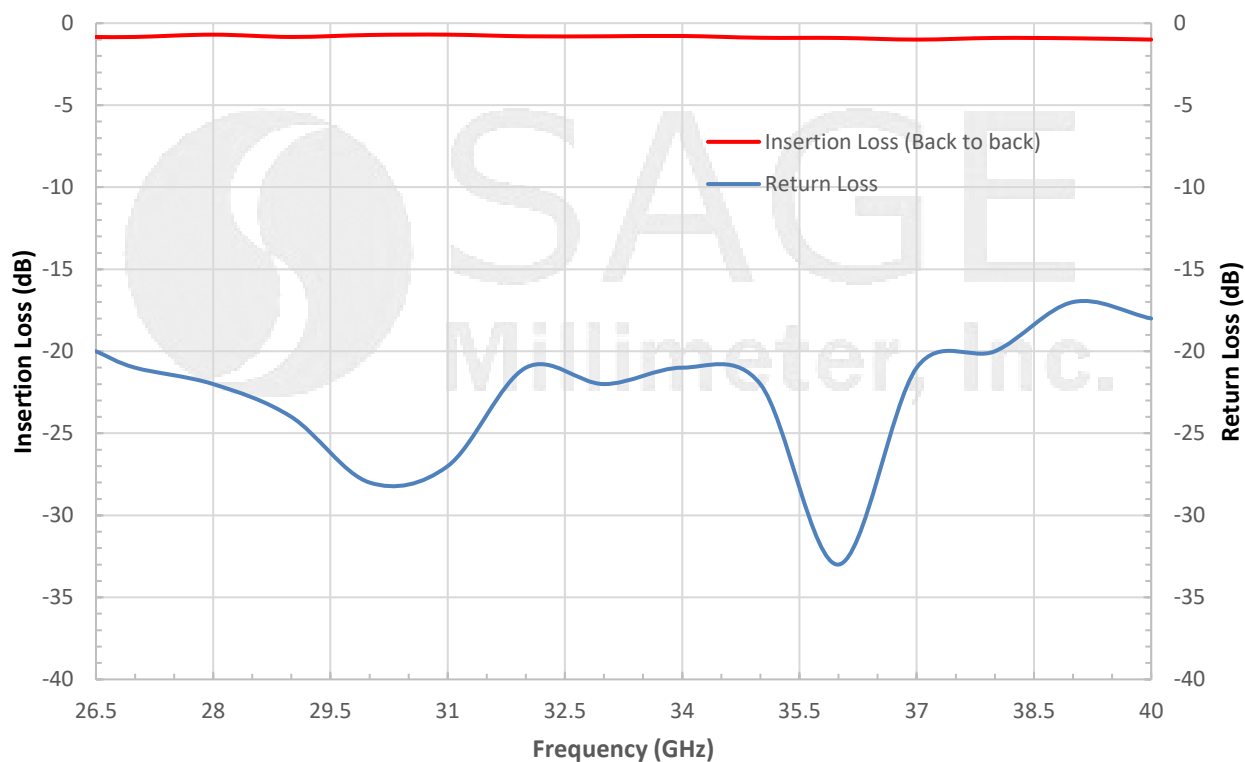
Mechanical Specifications:

Item	Parameter
Waveguide	WR-28 with UG-599/U Flange
Coaxial	2.92 mm (K) Female for Model Number: SWC-28KF-R1-V
Coaxial	2.92 mm (K) Male for Model Number: SWC-28KM-R1-V
Size	0.86" (L) x 0.75" (S) for Model Number: SWC-28KF-R1-V
Size	0.99" (L) x 0.75" (S) for Model Number: SWC-28KM-R1-V
Housing Material	Aluminum T6061-651 Alloy
Connector Materials	Contact: Beryllium Copper, Connector Housing: Stainless Steel, Insulator: PEI
Finish	Gold Plated; Type 1, 0.1 to 0.2 μm
Adhesive	H20E
Weight	0.2 Oz
Outline	WC-AR

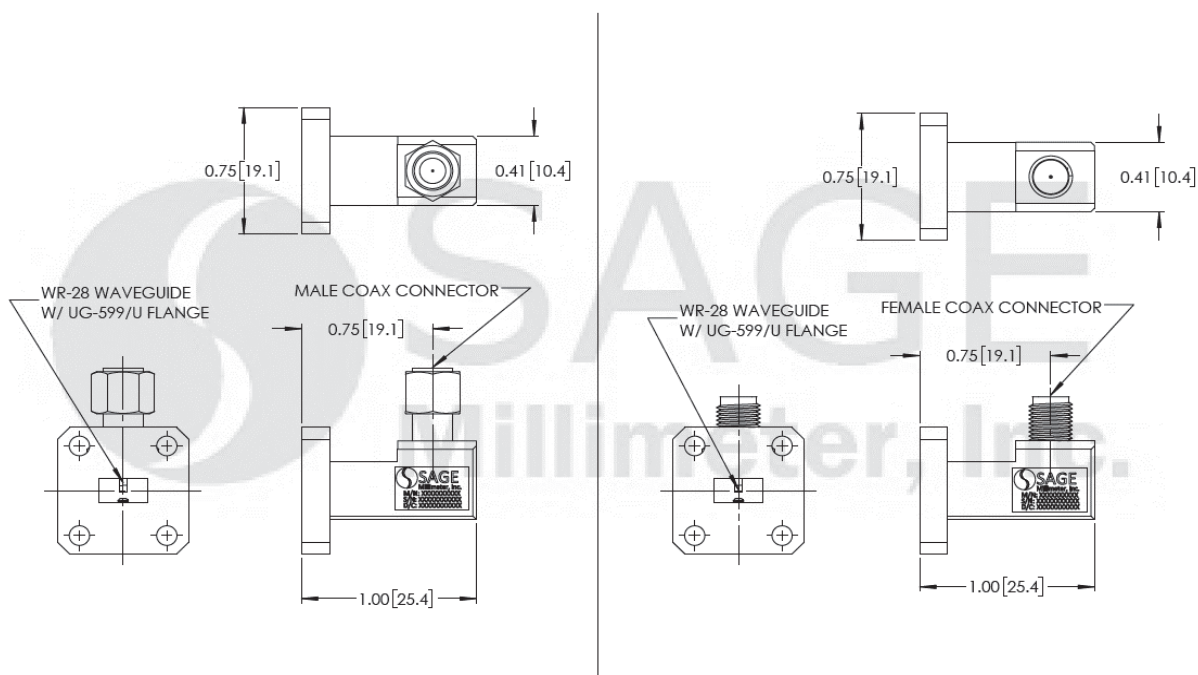


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Typical Return Loss & Back to Back Insertion Loss vs. Frequency



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



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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, 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.**

