SWC-222F-R1-599 and SWC-222M-R1-599 Rev. 1.2

Q-Band Waveguide to 2.4 mm Connector Adapter, Right Angle, Non-Standard Flange

Description:

Models SWC-222F-R1-599 and SWC-222M-R1-599 are right angle (90°) Q-Band waveguide to coax adapters with a non-standard square flange (UG599/U-M) that cover the frequency range of 33 to 50 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 to 2.4 mm coax connector. The end launch (180°) versions are offered under model numbers SWC-222F-E1-599 and SWC-222M-E1-599.

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	33 GHz		50 GHz
Insertion Loss*		0.4 dB	0.7 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-22 with Non-Standard UG-599/U-M Square Flange
Coaxial	2.4 mm Female for Model Number: SWC-222F-R1-599
Coaxial	2.4 mm Male for Model Number: SWC-222M-R1-599
Size	1.00” (L) x 0.75” (S)
Housing Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Outline	WC-QS-599

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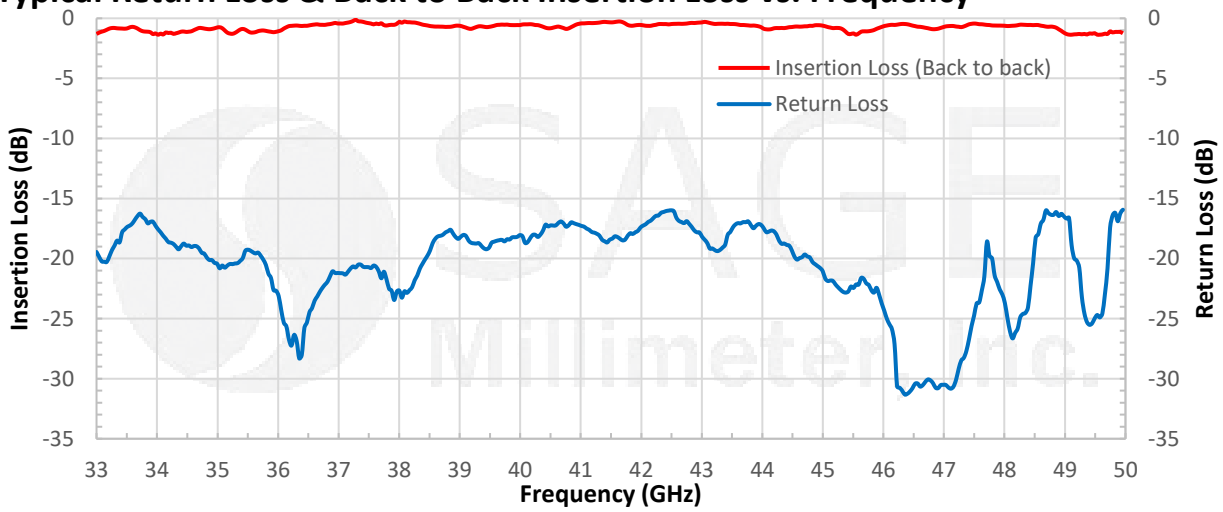
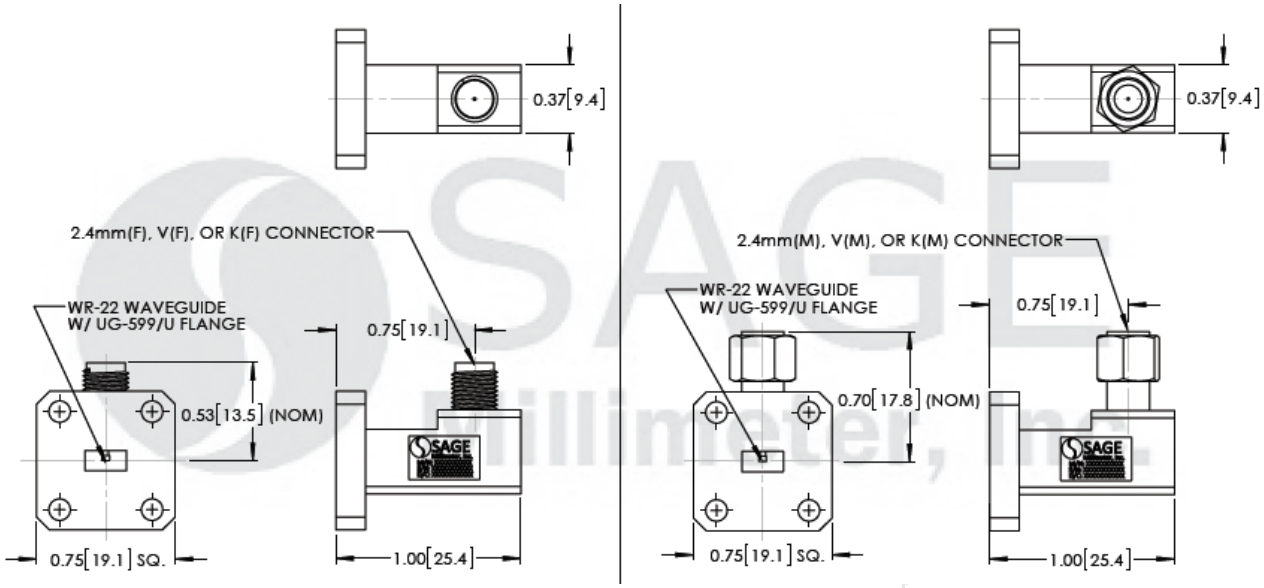
Typical Return Loss & Back to Back Insertion Loss vs. Frequency



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.
- 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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