SWC-101F-E1 and SWC-101M-E1

Rev. 1.2

W-Band Waveguide to 1.0 mm Connector Adapter, End Launch

Description:

Models SWC-101F-E1 and SWC-101M-E1 are end launch (180°) W-Band waveguide to coax adapters that cover the frequency range of 75 to 110 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 1.0 mm coax connector. The right angle (90°) versions are offered under model numbers SWC-101F-R1 and SWC-101M-R1.

Features:

- Full Waveguide 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	75 GHz		110 GHz
Insertion Loss*		1.2 dB	1.5 dB
Return Loss	12 dB	15 dB	
Power Handling			10 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-10 with UG-387/U-M Anti-Cocking Flange
Coaxial	1.0 mm Female for Model Number: SWC-101F-E1
Coaxial	1.0 mm Male for Model Number: SWC-101M-E1
Insertion Length	0.59” for SWC-101F-E1
Insertion Length	0.66” for SWC-101M-E1
Housing Material	Aluminum
Finish	Gold Plated
Weight	0.3 Oz
Outline	WC-WE-A

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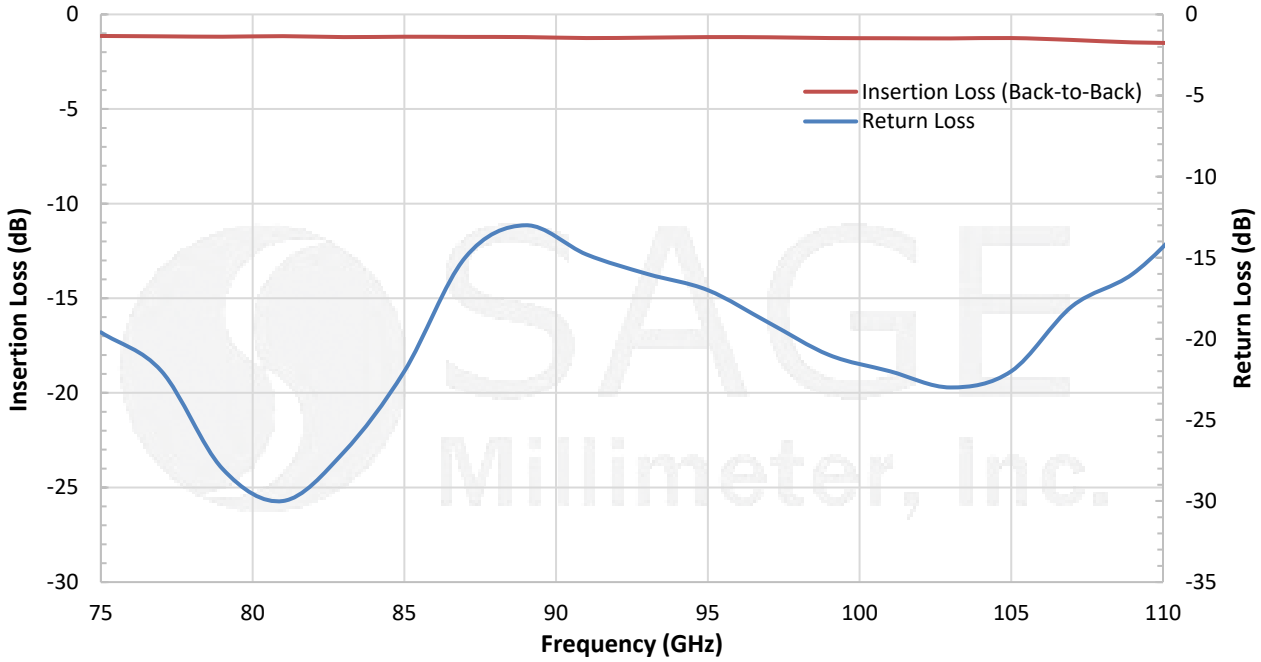
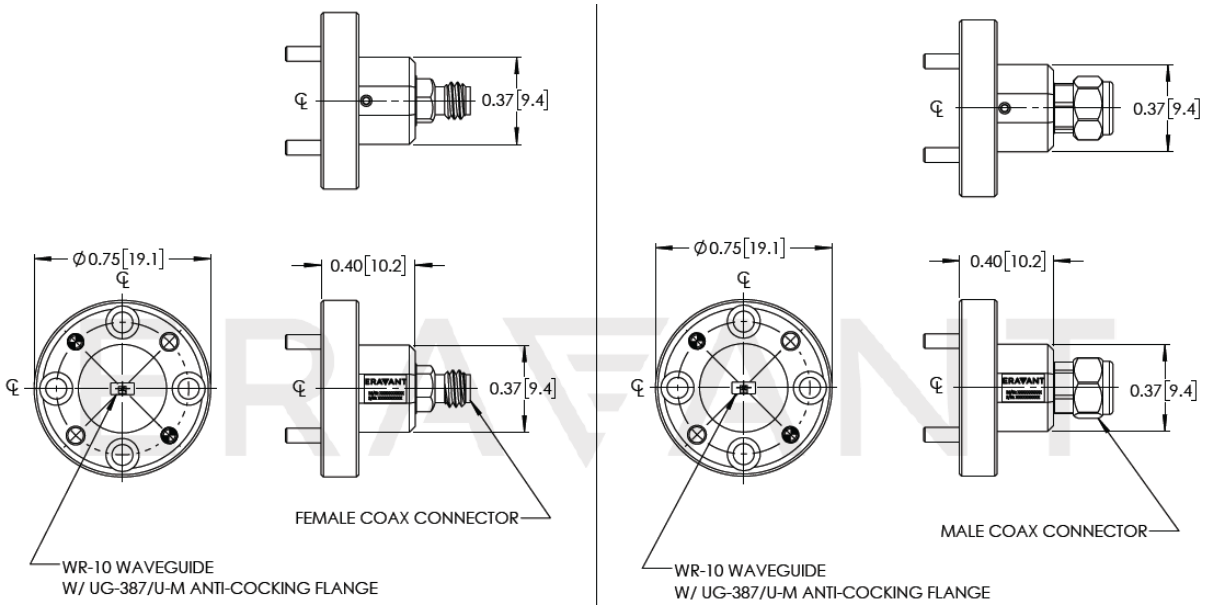
Typical Return Loss and Back-to-Back Insertion Loss vs. Frequency



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.
- Eravant 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, 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.**