

SWC-22VF-E1-V and SWC-22VM-E1-V

Q-Band Waveguide to 1.85 mm Connector Adapter, End Launch, Thermal Vacuum Safe

SWC-22VF-E1-V and SWC-22VM-E1-V are end launch (180°) Q-Band waveguide to coax adapters that cover the frequency range of 33 to 50 GHz. The adapters are designed and manufactured for instrumentation grade quality and thermal compatibility, allowing for an efficient transition between the rectangular waveguide and 1.85 mm (V) coax connector.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	33 GHz		50 GHz
Insertion Loss*		0.4 dB	0.7 dB
Return Loss	14 dB	18 dB	
Specification Temperature		+25°C	
Operating Temperature	-45°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	Specification
Waveguide	WR-22 Waveguide with UG-383/U Anti-Cocking Flange
Coaxial	1.85 mm (V) Female for Model Number: SWC-22VF-E1-V
Coaxial	1.85 mm (V) Male for Model Number: SWC-22VM-E1-V
Housing Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Outline	WC-QE-A

ECCN

EAR99

FEATURES

- Thermal Vacuum Safe
- Full Waveguide Band Coverage
- Low Insertion Loss and VSWR
- Instrumentation Grade
- DC Short Circuit

APPLICATIONS

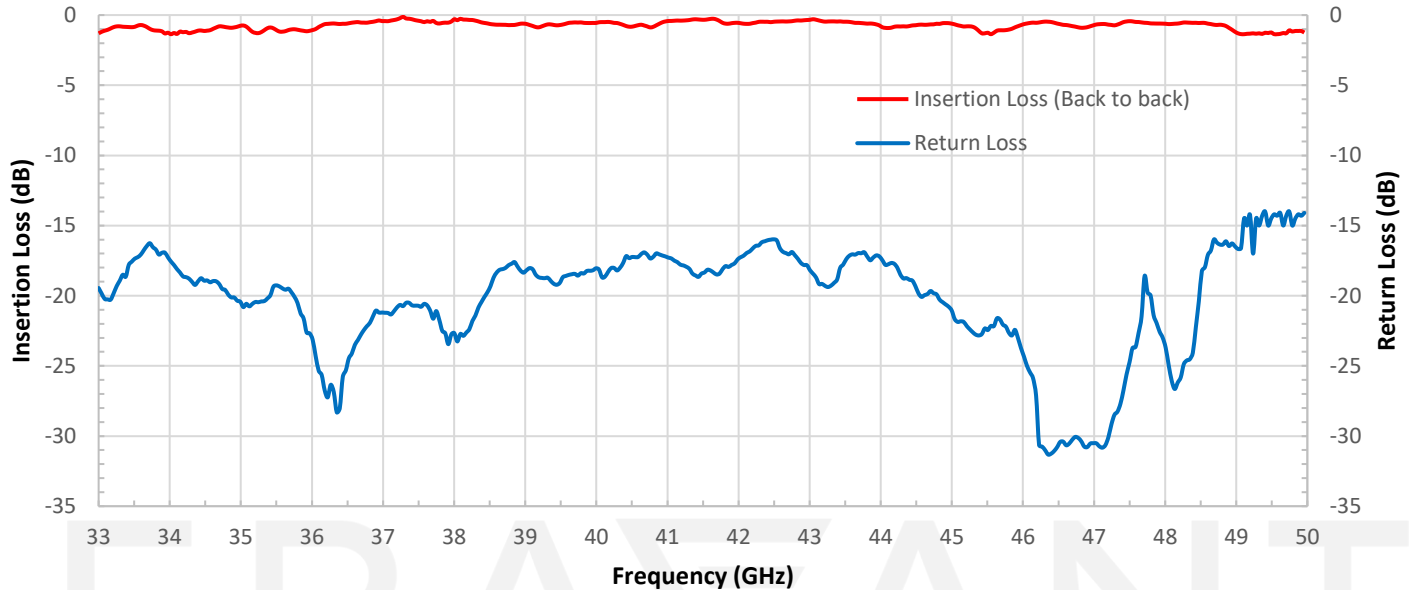
- Thermal Vacuum Chamber
- Test Lab
- Instrumentations
- Sub-assemblies

SUPPLEMENTAL DETAILS

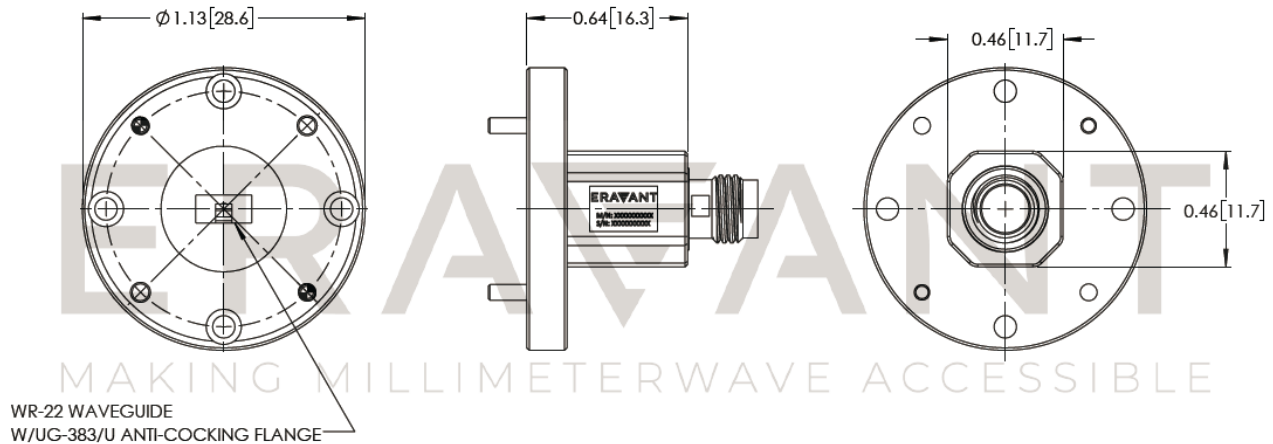


SWC-22VF-E1-V and SWC-22VM-E1-V

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 slightly from unit to unit. All testing is performed under +25 °C room temperature.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- Any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.