

SWC-22KF-E1-599 and SWC-22KM-E1-599

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

SWC-22KF-E1-599 and **SWC-22KM-E1-599** are end launch (180°) Q-Band waveguide to coax adapters with a square flange (UG599/U-M) that cover the frequency range of 33 to 43 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 2.92 mm (K) coax connector. The right angle (90°) versions are offered under model numbers [SWC-22KF-R1-599](#) and [SWC-22KM-R1-599](#).



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			40 W (CW)
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	Specification
Waveguide	WR-22 with UG-599/U-M Square Flange
Coaxial	2.92 mm Female for Model: SWC-22KF-E1-599
Coaxial	2.92 mm Male for Model: SWC-22KM-E1-599
Size	0.93" (L) x 0.75" (S) for Model: SWC-22KF-E1-599
Size	1.09" (L) x 0.75" (S) for Model: SWC-22KM-E1-599
Housing Material	Aluminum
Finish	Gold Plated
Weight	0.3 Oz
Outline	WC-QE-599

ECCN

EAR99

FEATURES

- 33 to 43 GHz Coverage
- Lower Insertion Loss and Return Loss
- Instrumentation Grade
- DC Open Circuit

APPLICATIONS

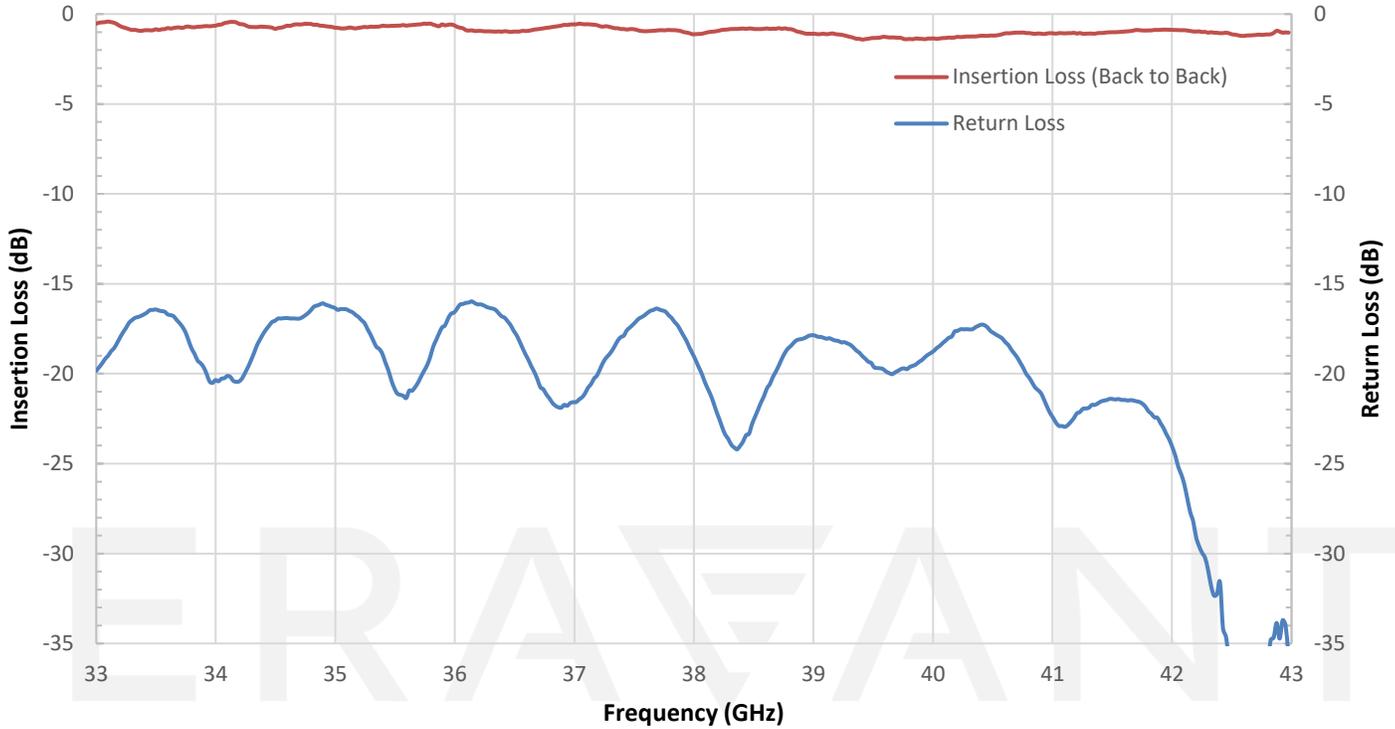
- Test Lab
- Instrumentations
- Sub-assemblies

SUPPLEMENTAL DETAILS



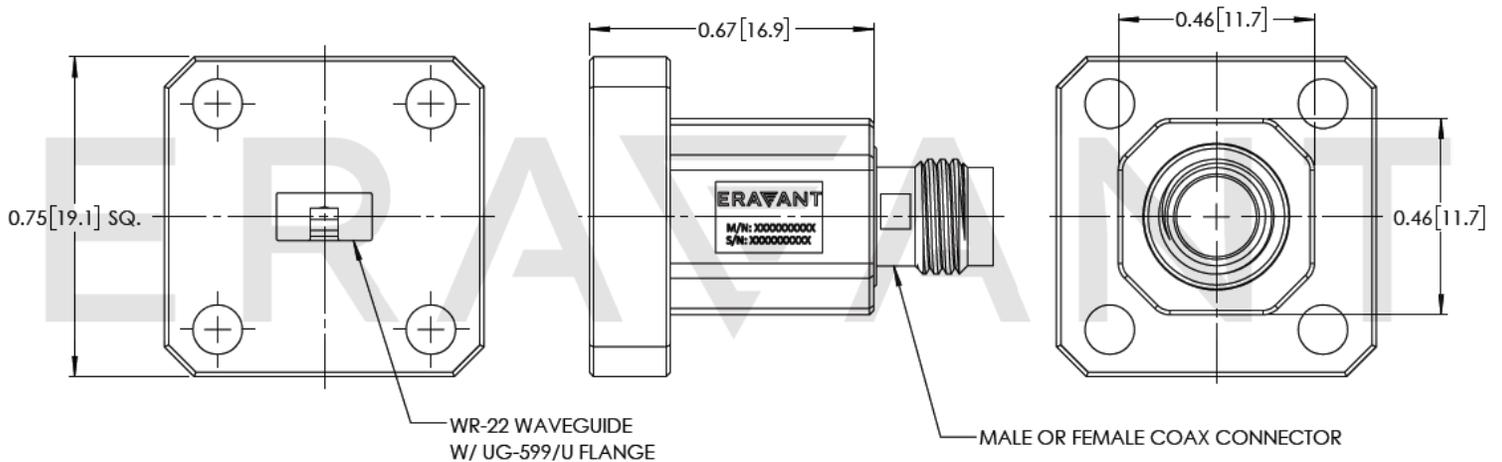
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Typical Return Loss & Back to Back Insertion Loss vs. Frequency



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



NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- 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.

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