

## SWC-51KF-R1-V and SWC-51KM-R1-V

### WR-51 Band Waveguide to 2.92mm Connector Adapter, Right Angle, Thermal Vacuum Safe

**SWC-51KF-R1-V** and **SWC-51KM-R1-V** are right angle (90°) WR-51 band waveguide to coax adapters that cover the frequency range of 15 to 22 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.



#### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	15 GHz		22 GHz
Insertion Loss*		0.16 dB	
Return Loss		22 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

\*Insertion loss is tested back to back with male and female adapter, the result is divided by 2.

#### Mechanical Specifications:

Item	Specification
Waveguide	WR-51 Waveguide with Standard Flange
Coaxial Port	2.92 mm (K) Female for Model Number: SWC-51KF-R1-V
Coaxial Port	2.92 mm (K) Male for Model Number: SWC-51KM-R1-V
Material	Aluminum
Finish	Gold Plated
Weight	0.9 Oz
Outline	WC-5R

#### ECCN

EAR99

#### FEATURES

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

#### APPLICATIONS

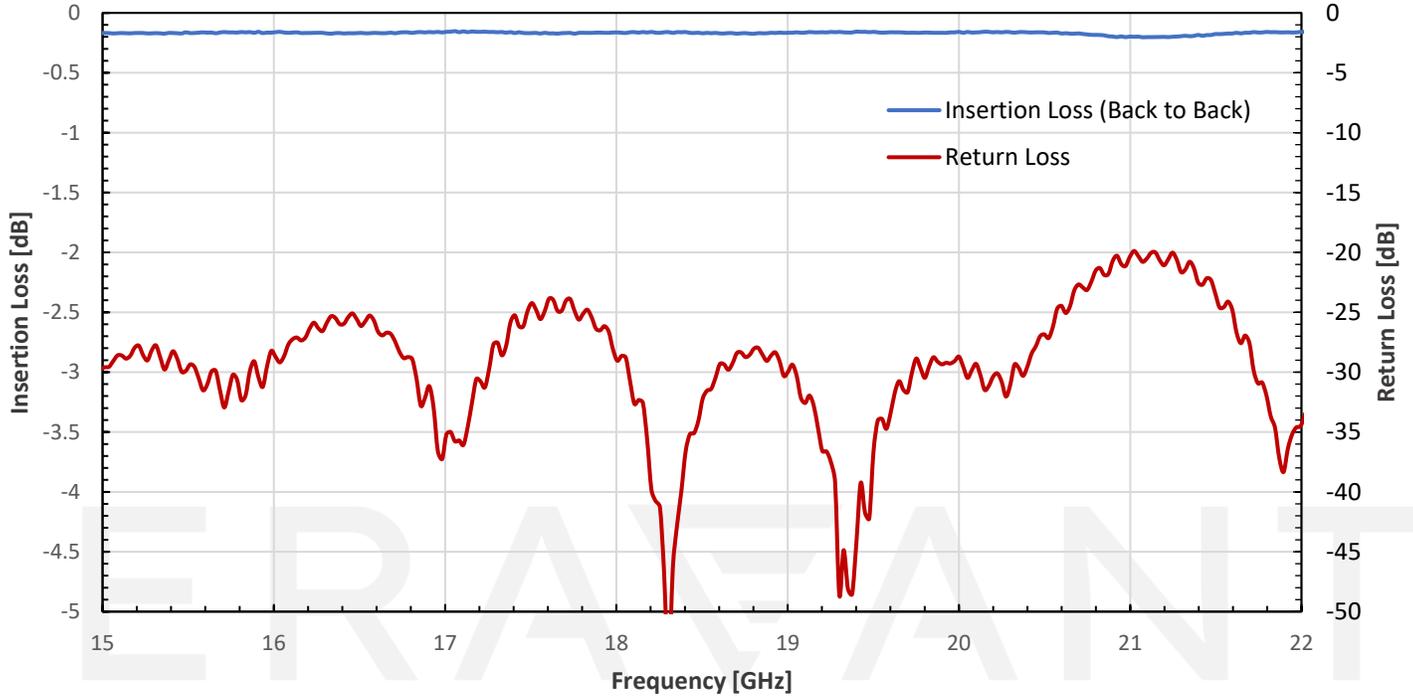
- Thermal Vacuum Chamber
- Test Lab
- Instrumentations
- Sub-assemblies

#### SUPPLEMENTAL DETAILS

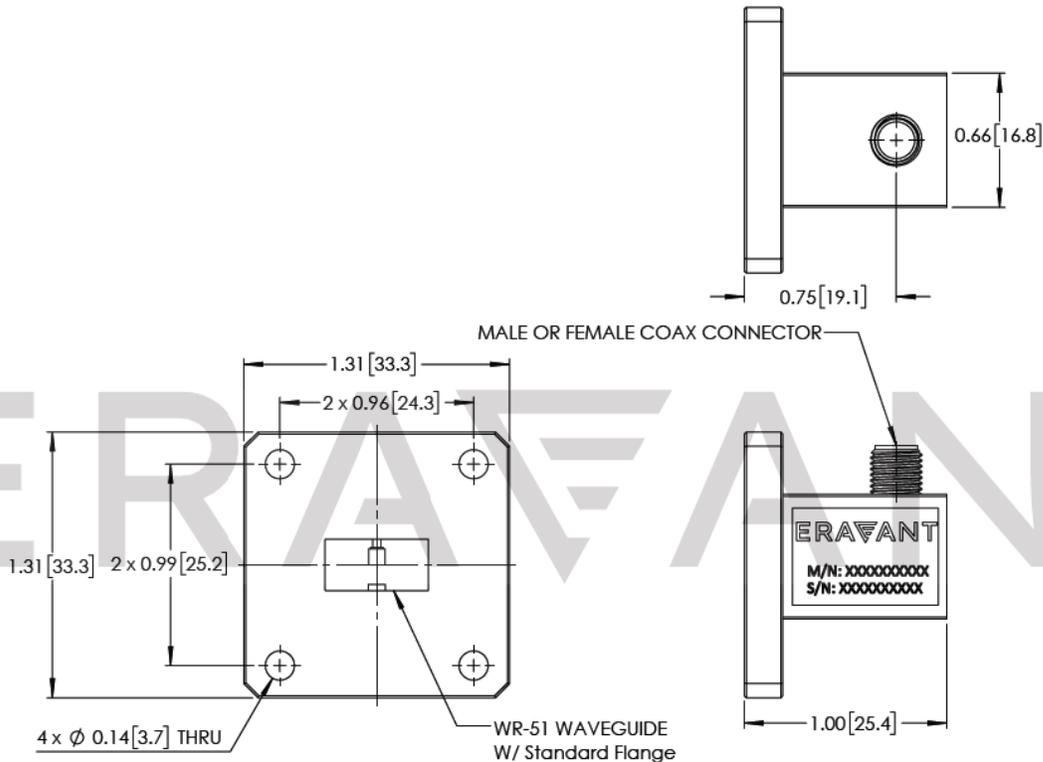


## SWC-51KF-R1-V and SWC-51KM-R1-V

### Typical Performance vs. Frequency



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



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### 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:

- 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:  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm). Torque wrench model [SCH-08008-S1](#) is highly recommended

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