

## E-Band Waveguide to 1.35 mm Connector Adapter, Right Angle

**SWC-12EF-R1** and **SWC-12EM-R1** are right angle (90°) E-Band waveguide to coax adapters that cover the frequency range of 60 to 90 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 1.35 mm coax connector. The end launch (180°) versions are offered under model numbers SWC12EF-E1 and SWC-12EM-E1.



## **Electrical Specifications:**

| Parameter                 | Minimum | Typical | Maximum   |
|---------------------------|---------|---------|-----------|
| Frequency Range           | 60 GHz  |         | 90 GHz    |
| Insertion Loss*           |         | 1.2 dB  | 1.5 dB    |
| Return Loss               | 12 dB   | 15 dB   |           |
| Power Handling            |         |         | 20 W (CW) |
| Specification Temperature |         | +25°C   |           |
| Operating Temperature     | -40°C   |         | +85°C     |

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

## **Mechanical Specifications:**

| Item         | Specification                                |  |  |
|--------------|--|--|--|
| Waveguide    | WR-12 with UG-387/U Anti-Cocking Flange      |  |  |
| Coaxial Port | 1.35 mm Female for Model Number: SWC-12EF-R1 |  |  |
| Coaxial Port | 1.35 mm Male for Model Number: SWC-12EM-R1   |  |  |
| Material     | Aluminum                                     |  |  |
| Finish       | Gold Plated                                  |  |  |
| Weight       | 0.4 Oz                                       |  |  |
| Outline      | WC-ER-A                                      |  |  |

#### **ECCN**

EAR99

## **FEATURES**

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

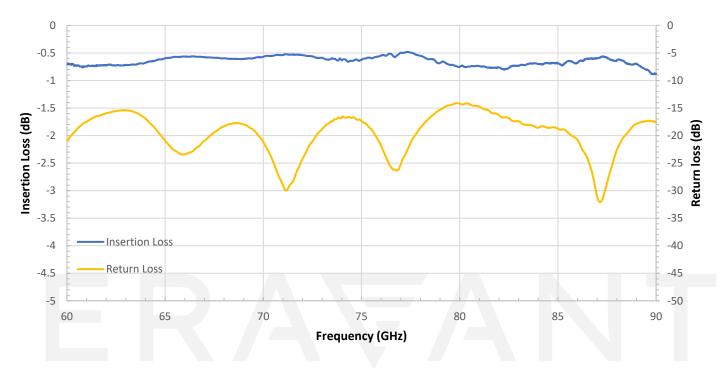
### **APPLICATIONS**

- Test Lab
- Instrumentations
- Sub-assemblies

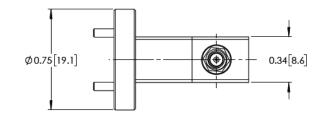
## **SUPPLEMENTAL DETAILS**

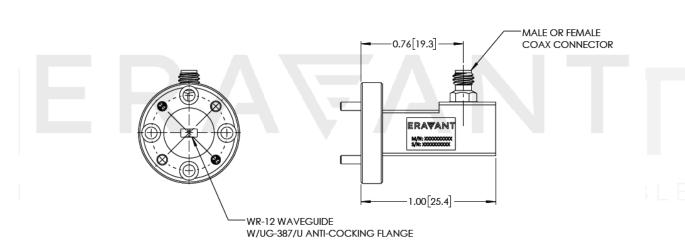


# **Typical Performance vs Frequency**



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





# SWC-12EF-R1 and SWC-12EM-R1

#### 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.
- Proper torque should be applied to prevent damage to the unit: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm).

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