## ERAWANT

### SWC-101F-E1-WR and SWC-101M-E1-WR

### W-band Waveguide to Coax Panel Mount Adapter, End Launch

**SWC-101F-E1-WR and SWC-101M-E1-WR** are end launch (180°) W-Band waveguide to coax panel mount adapters that cover the frequency range of 75 to 110 GHz. They are designed and manufactured for panel mount instrumentation applications and allow for an efficient transition between the rectangular waveguide and 1 mm coax connector. These adapters are also specially designed to be weather resistant. The right angle (90°) versions are offered under model numbers SWC-101F-R1-WR and SWC-101M-R1-WR.



#### **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	Specification		
Waveguide Port	WR-10 with UG-387/U-M Anti-Cocking Flange with O-Ring		
Coaxial	1 mm Female for Model Number: SWC-101F-E1-WR		
Coaxial	1 mm Male for Model Number: SWC-101M-E1-WR		
Body Material	Aluminum		
Flange Material	Brass		
Finish	Gold Plated		
Weight	2.0 Oz		
Size	1.14" (L) x 1.33" (Ø) for Model Number: SWC-101F-E1-WR		
Size	1.21" (L) x 1.33" (Ø) for Model Number: SWC-101M-E1-WR		
Outline	WC-WE-WR-A		

#### ECCN

EAR99

#### **FEATURES**

- Full Waveguide Band Coverage
- Lower Insertion Loss and VSWR
- Instrumentation Grade
- DC Short Circuit
- Weather Resistant

#### **APPLICATIONS**

- Test Labs
- Instrumentations
- Communication Systems

#### SUPPLEMENTAL DETAILS

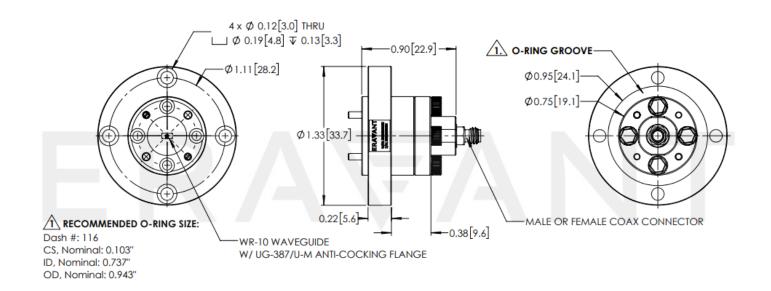


# SWC-101F-E1-WR and SWC-101M-E1-WR

#### 0 0 Insertion Loss (Back to Back) -5 -5 Return Loss -10 -10 Insertion Loss (dB) Return Loss (dB) -15 -15 -20 -20 -25 -25 -30 -30 -35 90 95 100 105 75 80 85 110 Frequency (GHz)

#### Typical Return Loss and Back to Back Insertion Loss 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:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Any foreign objects in the antenna will cause performance degradation and possible device damage.
- Proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model <u>SCH-06004-S1</u> is highly recommended.

# ERAFANT MAKING MILLIMETER WAVE ACCESSIBLE