# SWT-12110-SB

# WR-12 to 0.110" Diameter Circular Waveguide Mode Transition

**Model SWT-12110-SB** is a WR-12 to 0.110" Diameter Circular waveguide mode transition. The mode transition is manufactured by either EDM machining or electro-forming techniques to ensure high accuracy and a quality surface finish. The mode transition only induces a fraction of a dB insertion loss and offers a return loss of 32 dB or better. The nominal operating frequency is 77 to 87 GHz. The dominant mode frequency range can be extended to cover 77 to 90 GHz if the higher order waveguide mode is not excited.



## **Mechanical Specifications:**

| Item             | Specification  |
|------------------|--|
| Waveguide Size   | WR-12 Waveguide with UG-387/U Anti-Cocking Flange                    |
| Waveguide Size   | 0.110" Diameter Circular Waveguide with UG-387/U Anti-Cocking Flange |
| Material         | Brass  |
| Finish           | Gold Plated  |
| Weight           | 0.8 Oz   |
| Insertion Length | 1"   |
| Outline          | WT-EC-110-A  |

#### **ECCN**

EAR99

#### **FEATURES**

- Rugged Waveguide Configuration
- Low Insertion Loss
- Insturmentation Grade

#### **APPLICATIONS**

- Test Labs
- Test Instrumentation
- Sub-Assemblies

**SUPPLEMENTAL DETAILS** 

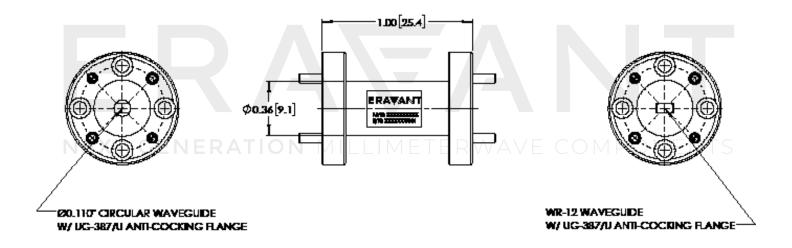
NEXT GENERATION MILLIMETERWAVE COMPONENTS



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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 mm connectors 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.
- 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 <u>SCH-08008-S1</u> is highly recommended.