

# F-Band Waveguide Dual-Directional Coupler, 10 dB

**SWD-1030H-08-DB** is a F-band, four-port waveguide dual-directional coupler that delivers a 10 dB nominal coupling level and 30 dB typical directivity across the full waveguide band from 90 to 140 GHz. The dual-directional coupler uses a traditional multi-hole and split block design to achieve a flat coupling level, high directivity, and low insertion loss. The waveguide interface of the coupler is WR-08 waveguides with UG-387/U-M anti-cocking flanges. Other coupling levels including custom coupling levels and asymmetrical forward/reverse coupling levels are available under different model numbers.

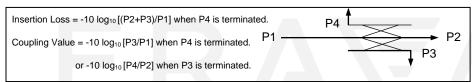


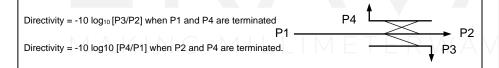
## **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency Range	90 GHz		140 GHz
Insertion Loss*		2.5 dB	
Coupling*		10 dB	
Directivity*		30 dB	
Main Line Return Loss		20 dB	
Coupling Port Return Loss		20 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

<sup>\*</sup>The definition of the insertion loss, coupling and directivity is shown as following. The required termination on the waveguide port is 30 dB or better for accurate measurement.

 $<sup>^{\</sup>star}$ The actual directivity and return loss are higher than shown due to the limitations of the network analyzer's dynamic range.





### **ECCN**

EAR99

### **FEATURES**

- Full Band Coverage
- · Low Insertion Loss
- High Directivity
- Flat Coupling Level Across the Band

### **APPLICATIONS**

- Test Labs
- Instrumentations
- Sub-assemblies

#### SUPPLEMENTAL DETAILS

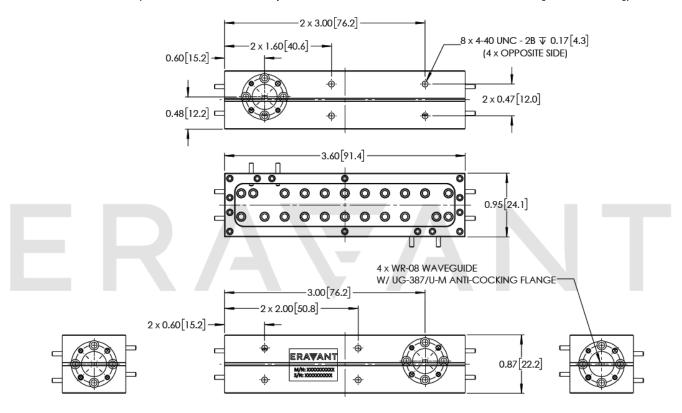




## **Mechanical Specifications:**

Item	Specification
Waveguide Ports	WR-08 Waveguide with UG-387/U-M Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Weight	9.0 Oz
Outline	WD-DB-F-A

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



#### NOTE:

• 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.

MAKING MILLIMETERWAVE ACCESSIBLE