

## Q-Band Waveguide Directional Coupler, 10 dB

**SWD-1040H-22-SB-WPC** is a Q band three-port waveguide directional coupler that delivers a 10 dB nominal coupling level and 35 dB minimum directivity across the full waveguide band from 33 to 50 GHz. The three-port coupler uses a traditional multi-hole and split block design to achieve flat coupling level, high directivity, and low insertion loss. The interfaces of the coupler are WR-22 waveguides with UG-383/U flanges. Custom coupling levels are available under different model numbers.

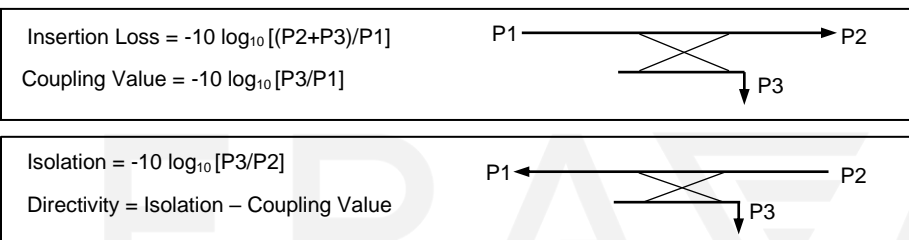


### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	33 GHz		50 GHz
Insertion Loss*		0.6 dB	
Coupling*		10 dB	
Directivity*	35 dB		
Return Loss		26 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

\*The required termination on the waveguide port is 30 dB or better for accurate measurement.

\*The definition of the insertion loss, coupling and directivity is shown as following.



### ECCN

EAR99

### FEATURES

- Full Band Operation
- Low Insertion Loss
- High Directivity

### APPLICATIONS

- Test Lab
- Instrumentations
- Sub-assemblies

### SUPPLEMENTAL DETAILS

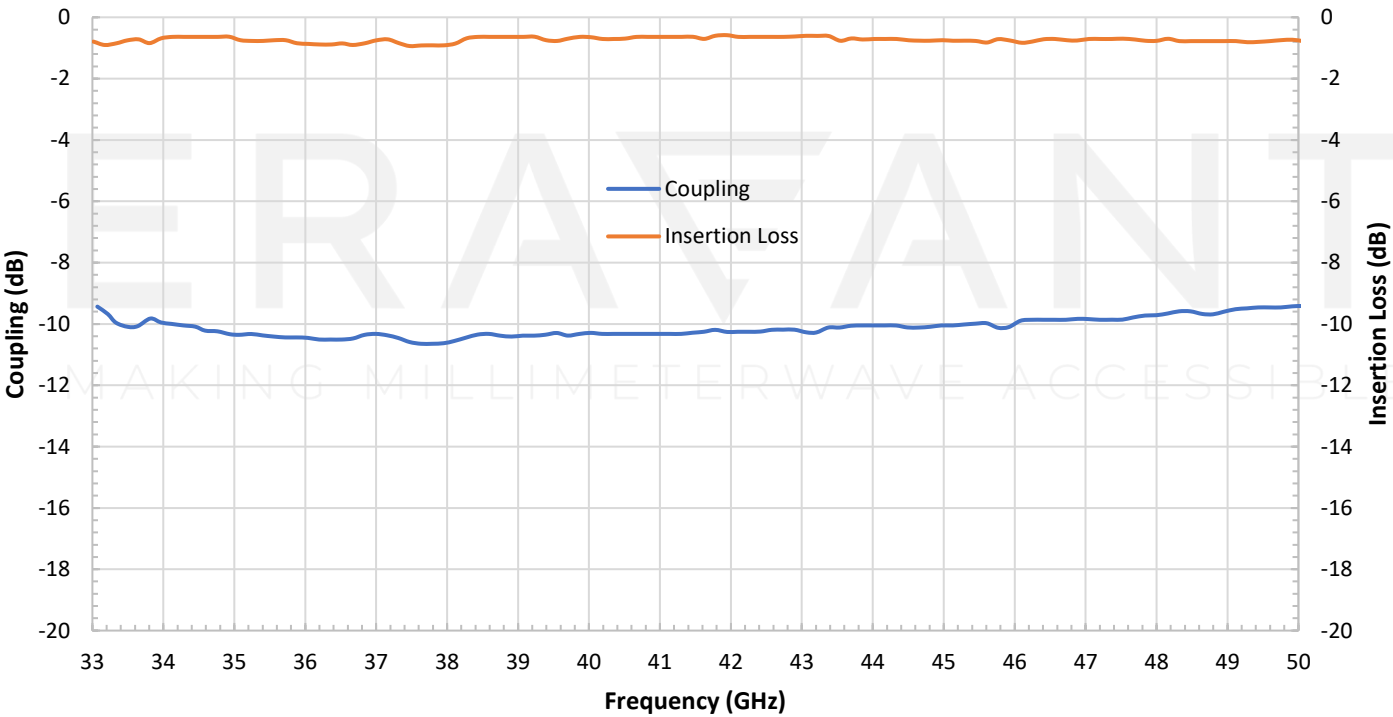


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Mechanical Specifications:

Item	Specification
Through Ports	WR-22 Waveguide with UG-383/U Flange
Coupled Ports	WR-22 Waveguide with UG-383/U Flange
Material	Brass
Finish	Gold Plated
Weight	1.58 lbs.
Outline	WD-SB-Q

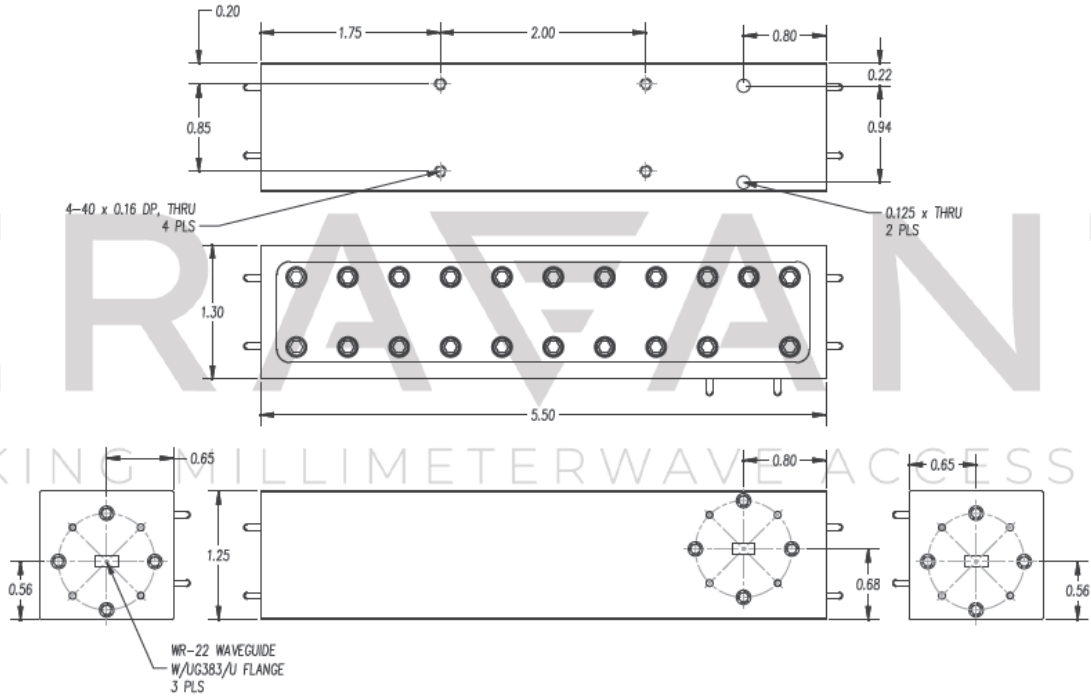
Typical Coupling and Insertion Loss vs. Frequency



## SWD-1040H-22-SB-WPC

### Mechanical Outline:

Unless otherwise specified, all dimensions are in inches [millimeters]



### NOTE:

- All data presented is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- 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.