

SWD-1040H-12-DB

E-Band Waveguide Dual-Directional Coupler, 10 dB

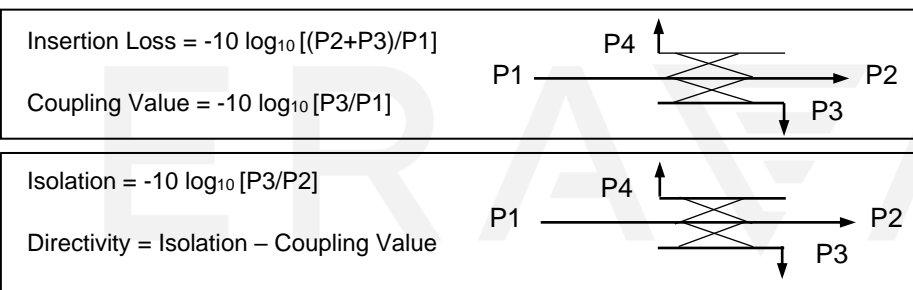
SWD-1040H-12-DB is an E-band, four-port waveguide dual-directional coupler that delivers a 10 dB nominal coupling level and 40 dB typical directivity across the full waveguide band from 60 to 90 GHz. The dual-directional coupler uses a traditional multi-hole and split block design to achieve a flat coupling level, high directivity, and low insertion loss. The waveguide interface of the coupler is WR-12 waveguides with UG-387/U anti-cocking flanges. Custom coupling levels are available under different model numbers.



Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---------------------------|---------|---------|---------|
| Frequency Range | 60 GHz | | 90 GHz |
| Insertion Loss* | | 1.5 dB | |
| Coupling* | | 10 dB | |
| Directivity* | 30 dB | 40 dB | |
| Return Loss | | 20 dB | |
| Specification Temperature | | +25°C | |
| Operating Temperature | -40°C | | +85°C |

*The definition of the insertion loss, coupling and directivity is show as following. The required termination on the waveguide port is 30 dB or better for accurate measurement.



ECCN

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FEATURES

- Full Band Operation
- Low Insertion Loss
- High Directivity

APPLICATIONS

- Test Labs
- Instrumentations
- Sub-assemblies

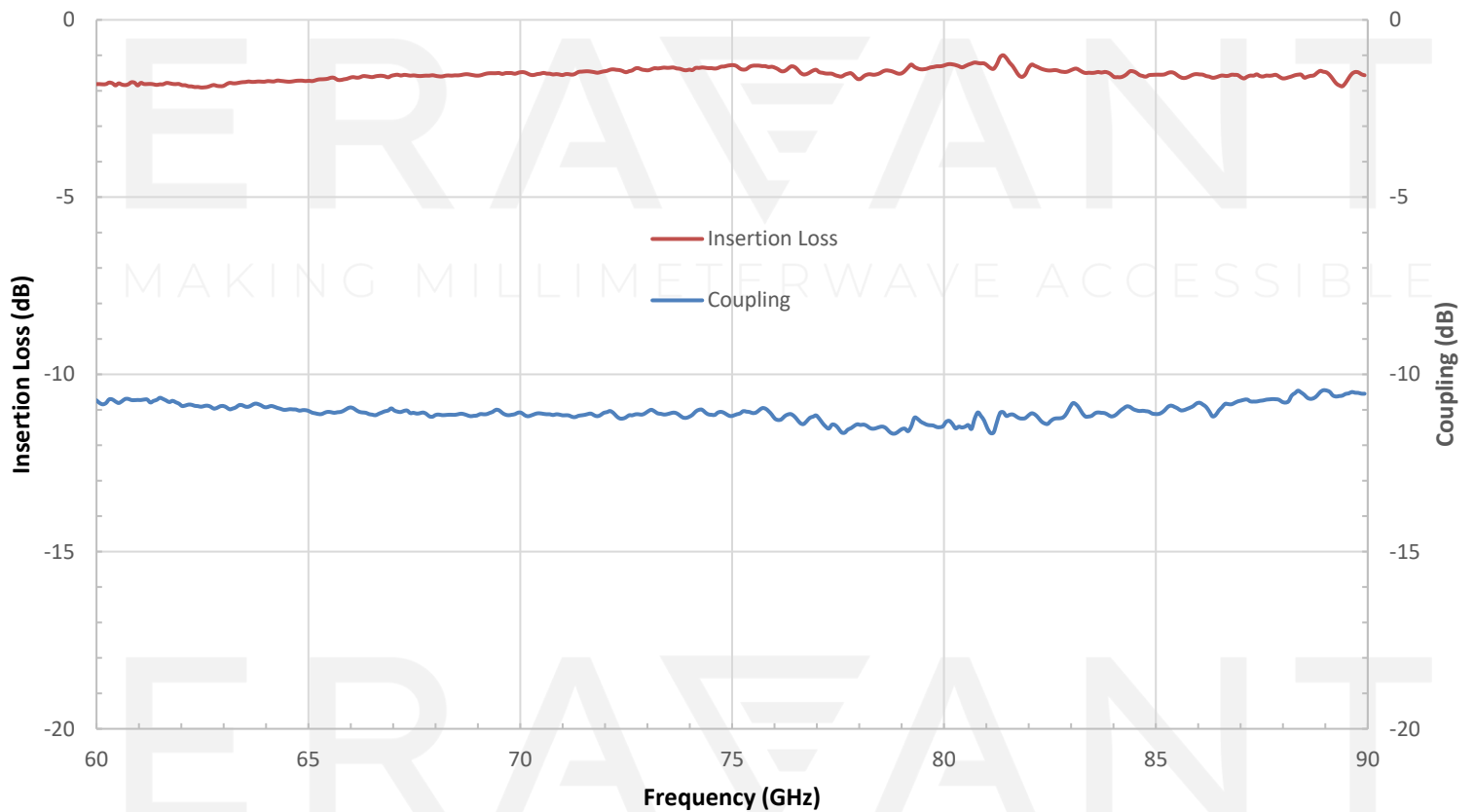
SUPPLEMENTAL DETAILS

SWD-1040H-12-DB

Mechanical Specifications:

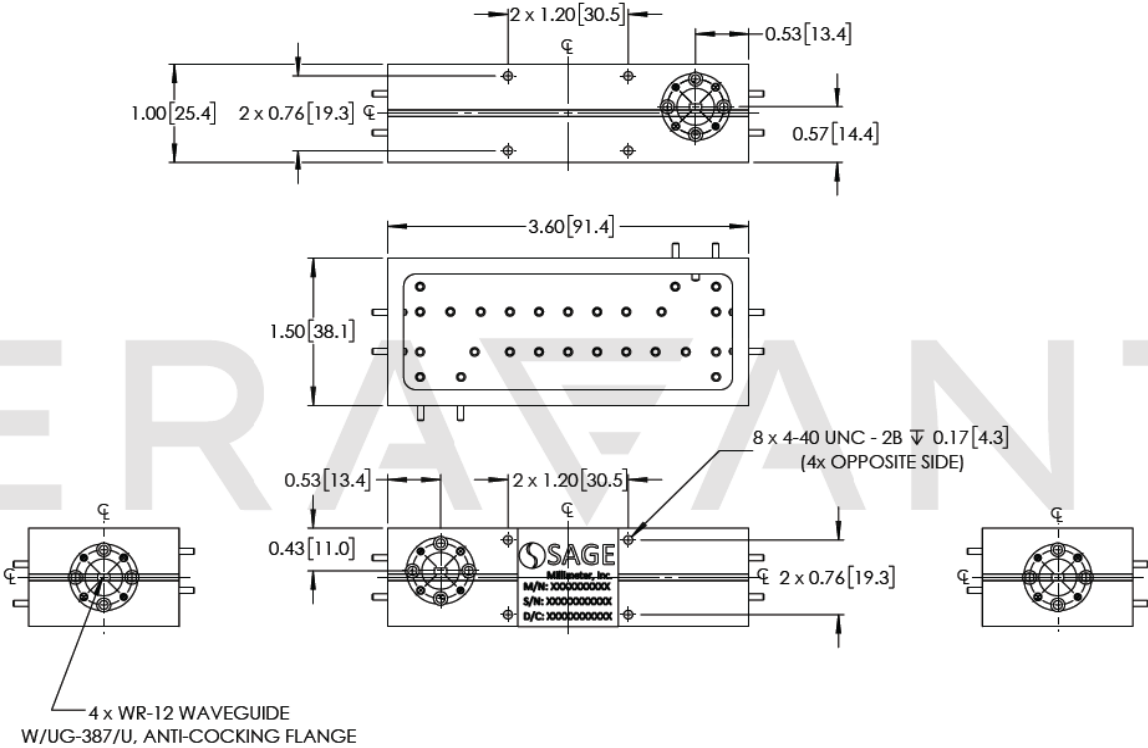
| Item | Specification |
|------------------|---|
| Through Ports | WR-12 Waveguide with UG-387/U Anti-Cocking Flange |
| Coupled Port | WR-12 Waveguide with UG-387/U Anti-Cocking Flange |
| Housing Material | Brass |
| Finish | Gold Plated |
| Size | 3.60" (L) X 1.50" (W) x 1.00" (H) |
| Outline | WD-DB-E-A |

Typical Insertion Loss and Coupling vs. Frequency



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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.
- 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.

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