

V-Band Magic Tee

SWM-50375320-15-SB is a V band magic tee that covers the frequency range of 50 to 75 GHz. This magic tee is a four-port hybrid coupler and/or power divider with two collinear arms, an E-plane (difference) arm, and an H-plane (sum) arm. The magic tee offers a 0.3 dB nominal insertion loss and high isolation between the two collinear arms and between the sum and difference arms. All waveguide ports have standard WR-15 waveguides with UG-385/U anti-cocking flanges.



Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---------------------------|--------------------------|---------|---------|
| Frequency Range | 50 GHz | | 75 GHz |
| Insertion Loss | | 0.3 dB | |
| Isolation | Sum and Difference Ports | 30 dB | |
| | Collinear Ports | 15 dB | 20 dB |
| Return Loss | | 14 dB | |
| Specification Temperature | | +25°C | |
| Operating Temperature | -40°C | | +85°C |

Mechanical Specifications:

| Item | Specification |
|--------------------------|---|
| Sum and Difference Ports | WR-15 Waveguide with UG-387/U Anti-Cocking Flange |
| Collinear Port | WR-15 Waveguide with UG-387/U Anti-Cocking Flange |
| Material | Aluminum |
| Finish | Gold Plated |
| Weight | 1.3 Oz |
| Size | 1.00" (L) x 1.00" (W) x 0.87" (H) |
| Outline | WM-BV-A |

ECCN

EAR99

FEATURES

- Low Insertion loss
- High Isolation
- Compact Package

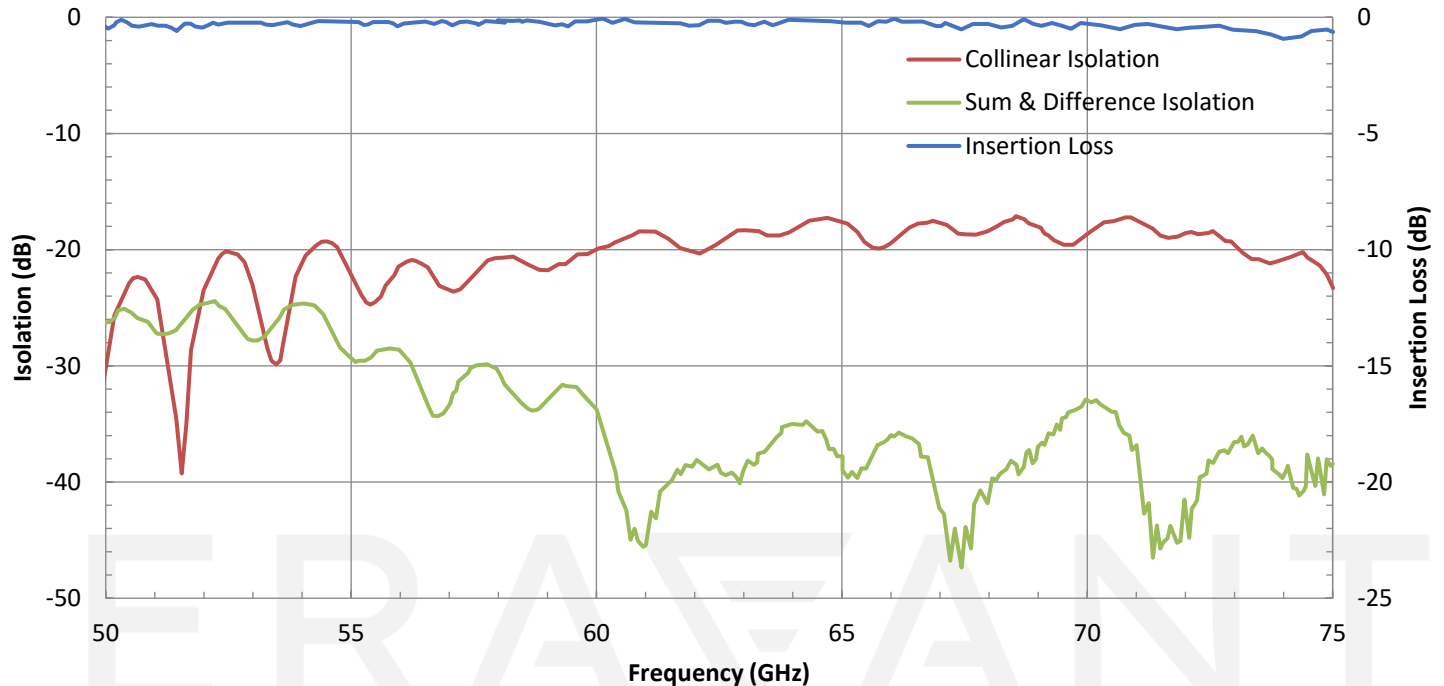
APPLICATIONS

- IEEE 802.ad WiGig Systems
- Test Labs
- Test Instrumentation
- Sub-assemblies

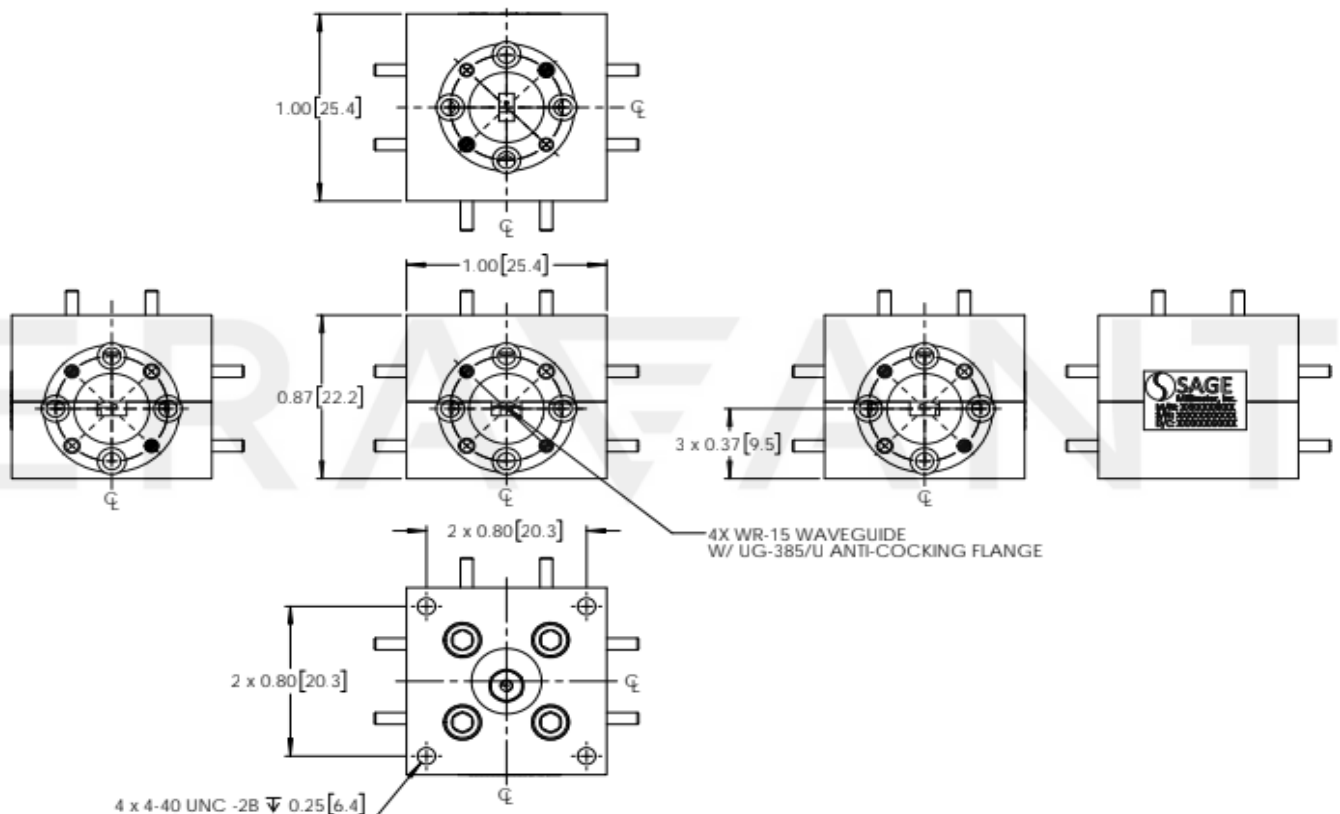
SUPPLEMENTAL DETAILS



Typical Isolation and Insertion Loss vs. Frequency



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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