



Q Band Waveguide Junction Isolator, 43 to 46 GHz

Description:

Model SNW-4334630518-22-IJ-2 is a Q band waveguide junction isolator that covers the frequency range of 43 to 46 GHz. Compared with a Faraday isolator, the waveguide junction isolator offers a lower insertion loss of 0.5 dB nominal and a much shorter insertion length for system integration. As a tradeoff, the waveguide junction isolator only offers an isolation of 18 dB typical. The input and output ports are WR-22 waveguides with UG-599/U compatible flanges. Various configurations and frequency ranges are offered under different model numbers.



Features:

- Low Insertion Loss
- Moderate Isolation
- Compact Configuration

Applications:

- Port Isolation
- Module Integration

Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---------------------------|---------|----------|---------|
| Frequency | 43 GHz | | 46 GHz |
| Insertion Loss | | 0.5 dB | |
| Isolation | | 18 dB | |
| Return Loss | | 17 dB | |
| Power Handling | | 5 W (CW) | |
| Specification Temperature | | +25 °C | |
| Operating Temperature | -40 °C | | +85 °C |

Mechanical Specifications:

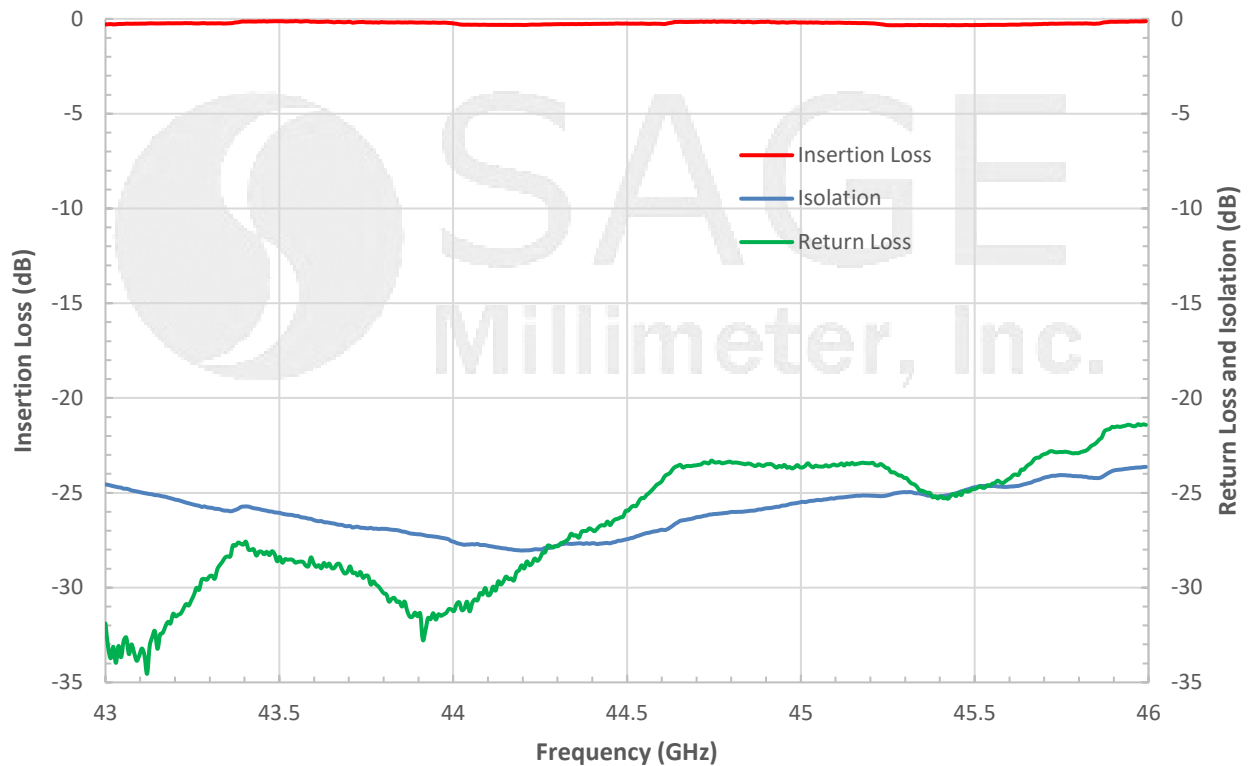
| Item | Specification |
|------------------|---|
| RF Ports | WR-22 Waveguide with UG-599/U Compatible Flange |
| Material | Aluminum |
| Finish | Gold Plated |
| Weight | 0.2 Oz |
| Insertion Length | 0.40" |
| Outline | NW-IQ-SX2 |



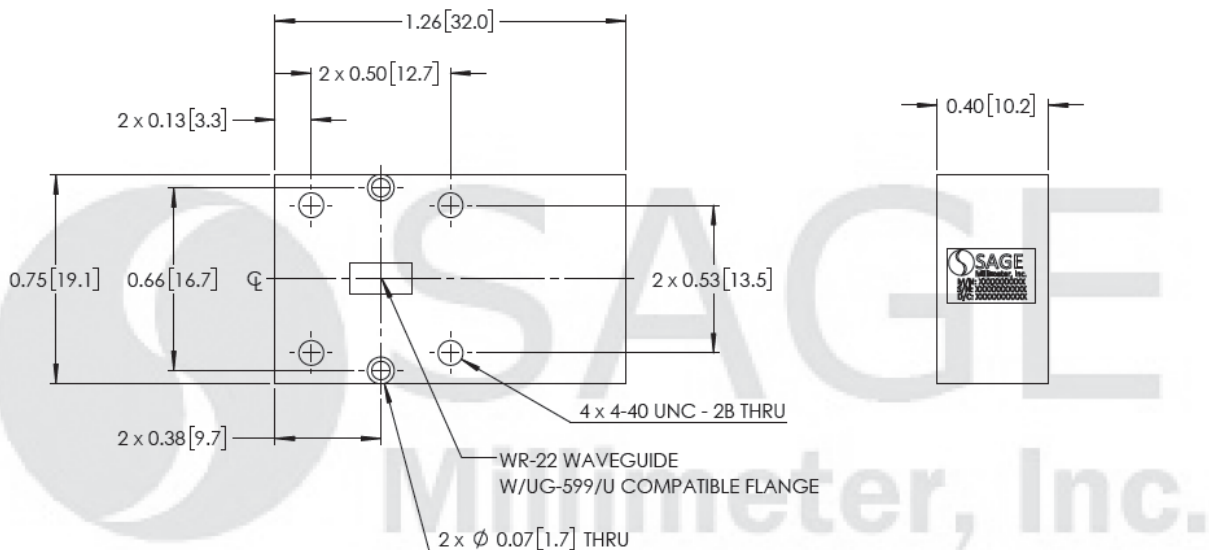


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Typical Performance vs. Frequency



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





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Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit slightly.
- All testing was performed under +25 °C case temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Exceeding absolute maximum ratings will damage the device.
- This device is magnetic sensitive. Keep the device at least 6" away from magnetic fields.
- Any foreign objects in the waveguide will degrade the performance and/or damage the device.

