

SWP-24344302-28-S1

Rev 1.0

Broadband WR-28 Waveguide Power Divider, 2-Way, 24 to 44 GHz

Description:

Model SWP-24344302-28-S1 is a broadband WR-28, 2-way power divider that operates from 24 to 44 GHz. The power divider offers a typical insertion loss of 0.4 dB and typical isolation of 18 dB. All ports are well-balanced and in-phase for power dividing or combining applications across the band. The power divider is configured as a right-angle package with WR-28 waveguides and UG-599/U compatible flanges at all ports. An inline, 2-way configuration is offered under model **SWP-24344302-28-E1**. Other power splitting options, such as 4-way, 8-way, and 16-way division, are available for both right-angle and inline configurations under different model numbers.



Features:

- Broadband Performance from 24 to 44 GHz
- Low Insertion Loss
- High Isolation
- Compact Package

Applications:

- 5G mmW Systems
- Test Instrumentation
- Sub-assemblies
- Power Combining and Dividing

Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|-----------------------------|---------|---------|---------|
| Frequency | 24 GHz | | 44 GHz |
| Insertion Loss | | 0.4 dB | 0.8 dB |
| Power Unbalance | | ±0.2 dB | ±0.4 dB |
| Isolation, 24 to 26.5 GHz | | 12 dB | |
| Isolation, 26.5 to 44 GHz | | 18 dB | |
| Return Loss, 24 to 26.5 GHz | 10 dB | 12 dB | |
| Return Loss, 26.5 to 44 GHz | 13 dB | 18 dB | |
| Specification Temperature | | +25 °C | |
| Operating Temperature | -40 °C | | +85 °C |

Mechanical Specifications:

| Item | Specification |
|----------|---|
| RF Ports | WR-28 Waveguide with UG-599/U Compatible Flange |
| Material | Brass |
| Finish | Gold Plated |
| Weight | 10.5 oz. |
| Outline | WP-A2-A-2 |

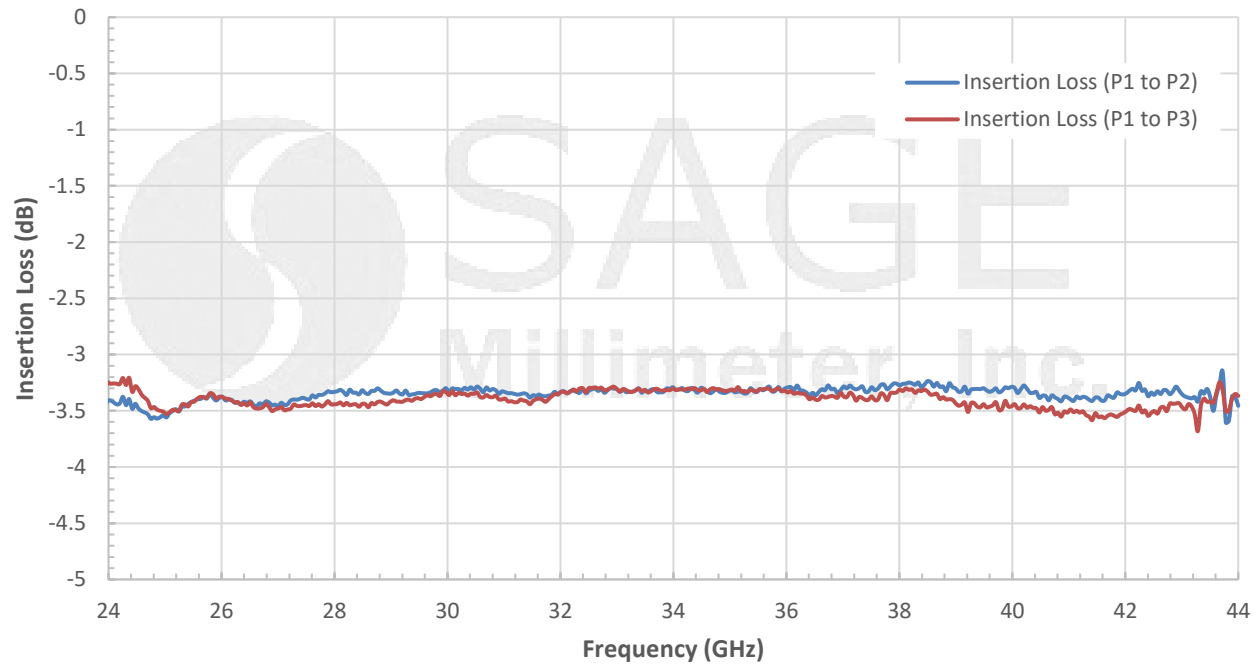


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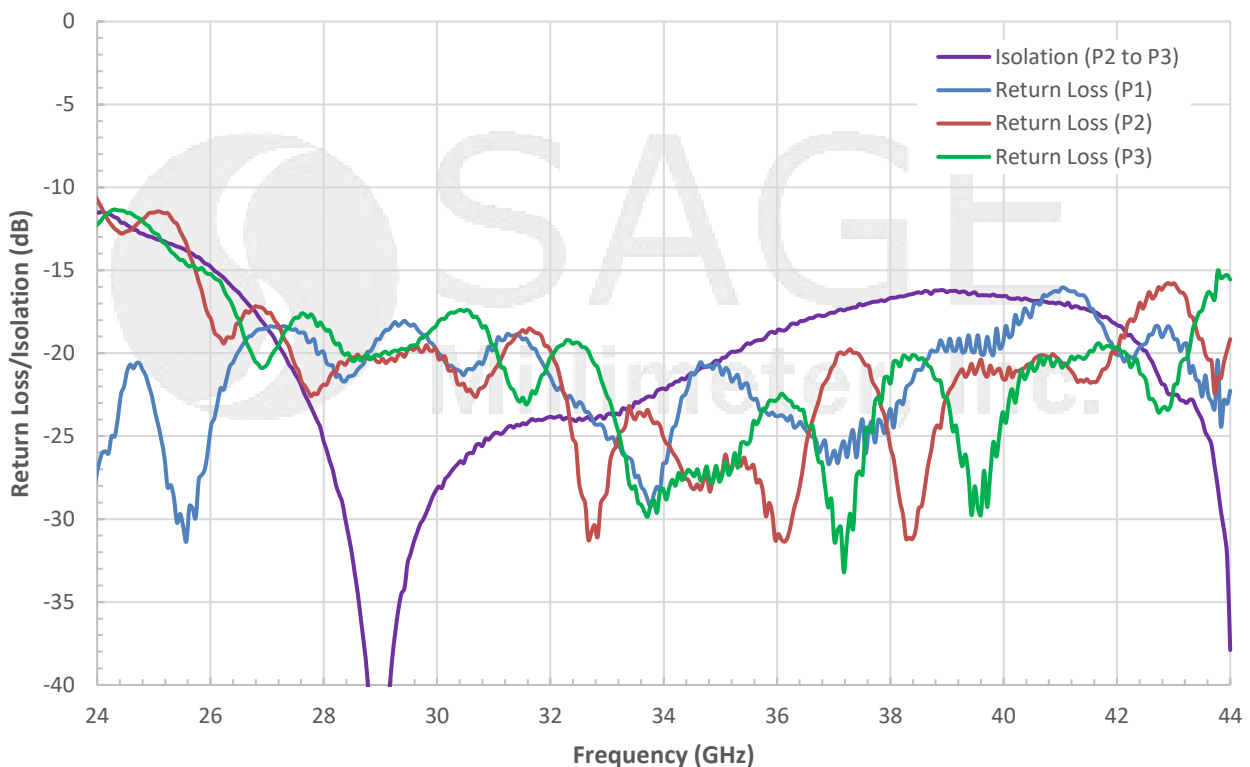
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Typical Measured Insertion Loss vs Frequency



Typical Measured Return Loss and Isolation vs Frequency

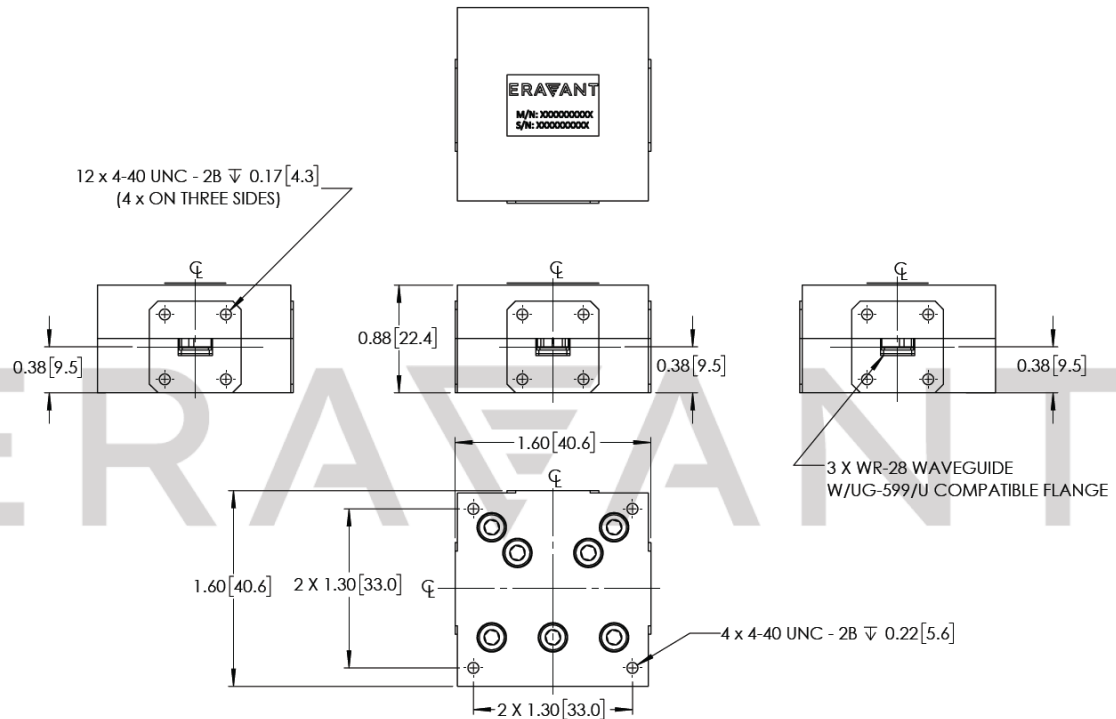


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Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- All data presented is collected from a sample lot. Actual data may vary 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:

- Any foreign objects in the waveguide will degrade performance and/or damage the device.

