

STP-18-04-M1-C-1.2

WR-04 Compact Micrometer Driven Phase Shifter

STP-18-04-M1-C-1.2 is a WR-04 compact micrometer driven phase shifter that covers the frequency range from 170 to 260 GHz. The phase shifter features a high-resolution precision micrometer which allows for finer adjustment sensitivity than a standard micrometer. The phase shifter is an ideal piece of equipment in waveguide systems where broadband phase shifting is required. The phase shifter exhibits a 2.3 dB typical insertion loss and an adjustable phase range of up to 180 degrees.



Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---------------------------|---------|---------|-------------|
| Frequency Range | 170 GHz | | 260 GHz |
| Insertion Loss | | 2.3 dB | |
| Phase Shifting Range | 0° | | 180° |
| Return Loss | | 20 dB | |
| Power Handling | | | 100 mW (CW) |
| Specification Temperature | | +25°C | |
| Operating Temperature | -40°C | | +85°C |

Mechanical Specifications:

| Item | Specification |
|------------------|---|
| RF Ports | WR-04 Waveguide with UG-387/U-M Anti-Cocking Flange |
| Setting Type | Micrometer Head |
| Insertion Length | 1.20" |
| Material | Aluminum |
| Finish | Gold Plated |
| Weight | 3.5 Oz |
| Outline | TA-M04-A-1.2 |

ECCN

EAR99

FEATURES

- Full Band Coverage
- Compact Size
- High Resolution Micrometer
- Low Insertion Loss

APPLICATIONS

- Test Lab
- Instrumentations
- System Integration

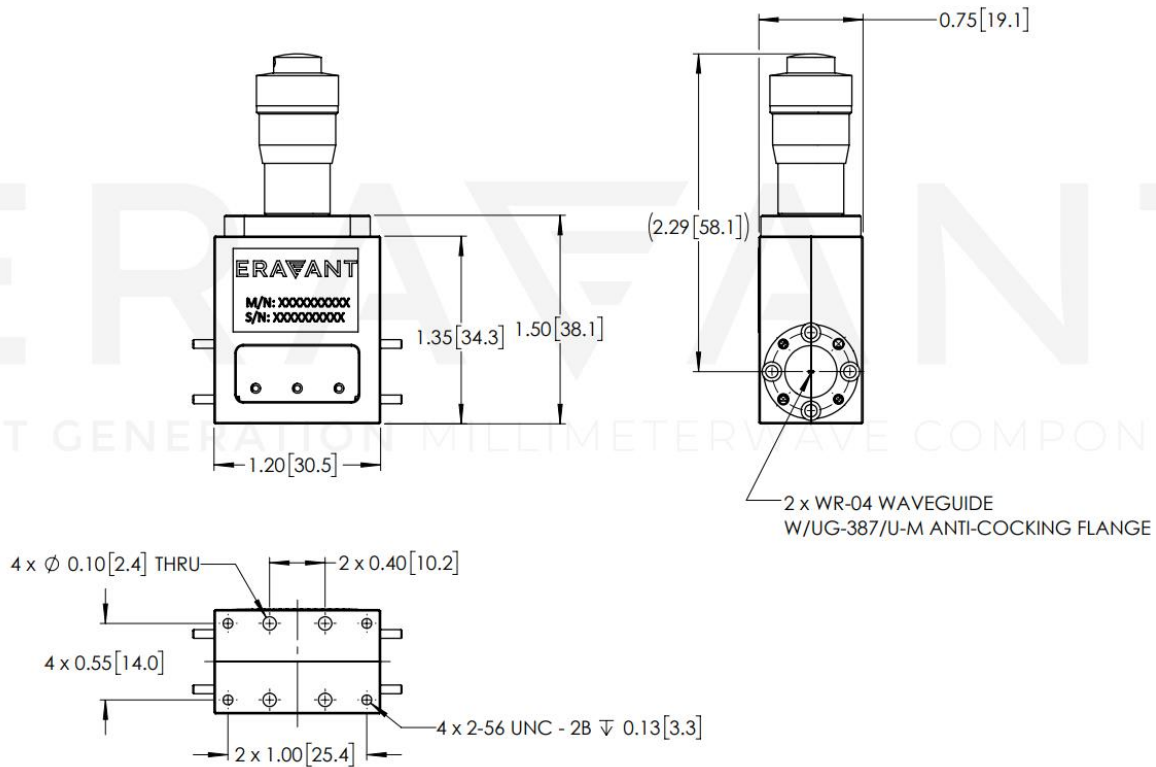
SUPPLEMENTAL DETAILS



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Mechanical Outline:

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



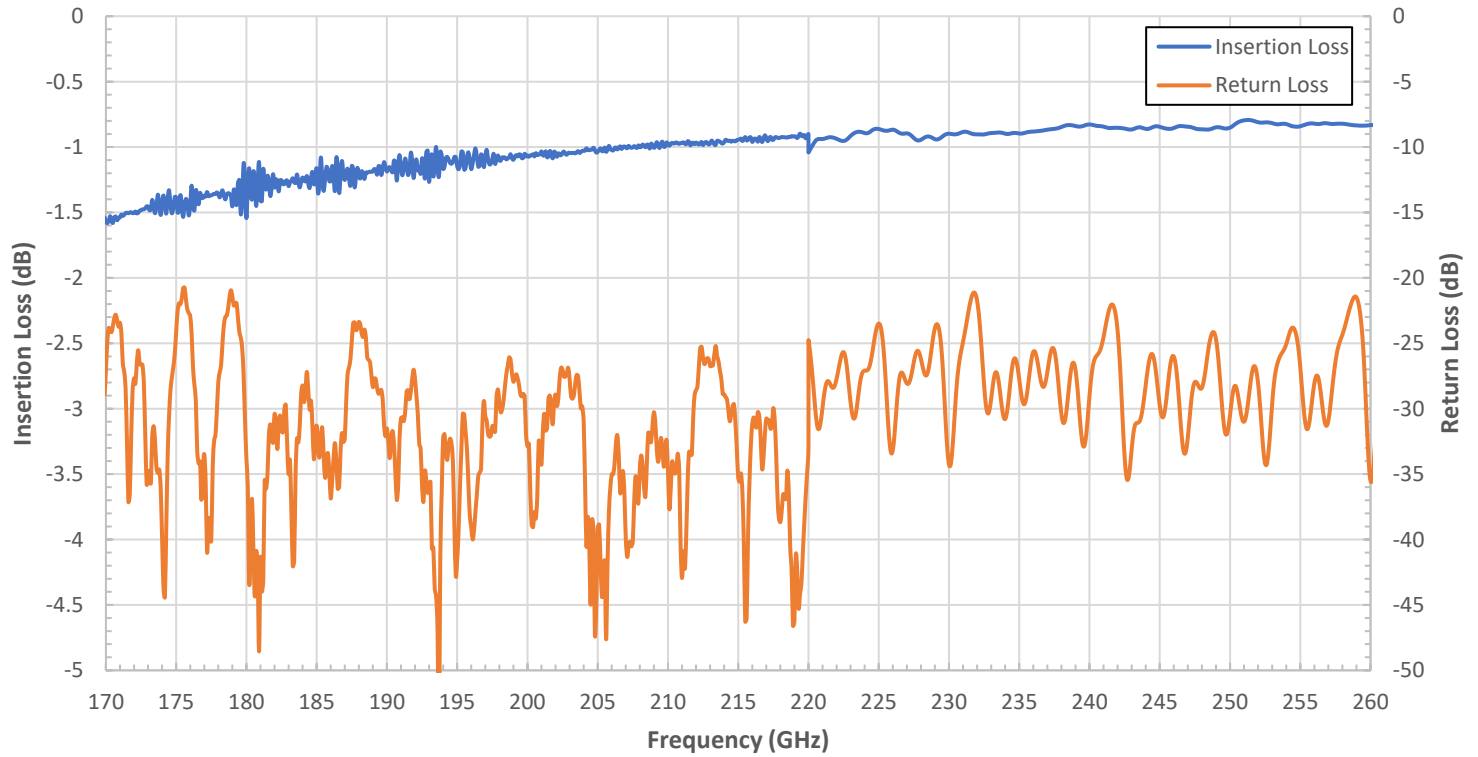
NOTE:

- 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.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- RF power should never exceed 100 mW.
- Forcing the micrometer down after encountering resistance may damage the resistive sheet inside. This will cause permanent performance degradation and decrease the long-term stability and repeatability of the device.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Any foreign objects in the antenna will cause performance degradation and possible device damage.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model [SCH-06004-S1](#) is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model [SCH-08008-S1](#) is highly recommended

Typical Measured Performance vs Frequency



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MAKING MILLIMETERWAVE ACCESSIBLE