STP-18-12-M1-C-1.2

WR-12 Compact Micrometer Driven Phase Shifter

STP-18-12-M1-C-1.2 is a WR-12 compact micrometer driven phase shifter that covers the frequency range from 60 to 90 GHz. The phase shifter is an ideal piece of equipment in waveguide systems where broadband phase shifting is required. The phase shifter exhibits a 0.3 dB typical insertion loss and an adjustable phase range of up to 180 degrees.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	60 GHz		90 GHz
Insertion Loss		0.3 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-12 Waveguide with UG-387/U Anti-Cocking Flange	
Setting Type	Micrometer Head	
Micrometer Pitch	0.5mm	
Micrometer Resolution	0.01mm	
Insertion Length	1.20"	
Material	Aluminum	
Finish	Gold Plated	
Weight	3.5 Oz	
Outline	TA-ME-A-1.2	



ECCN EAR99

FEATURES

Full Band CoverageCompact Size

Low Insertion Loss

Instrumentations System Integration

SUPPLEMENTAL DETAILS

APPLICATIONS

Test Lab

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High Resolution Micrometer

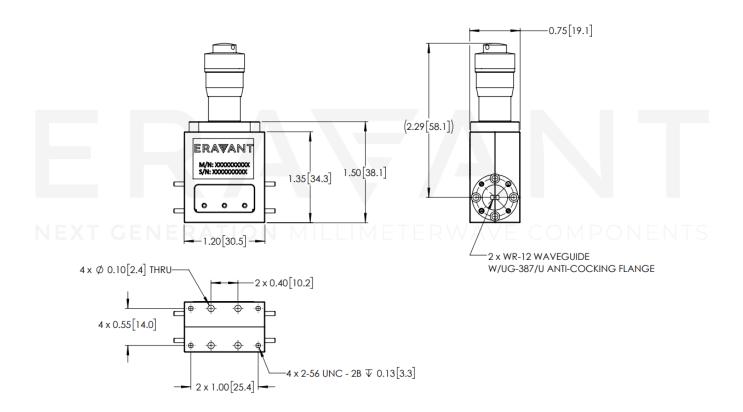
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Mechanical Outline:

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 <u>SCH-06004-S1</u> 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 <u>SCH-08008-S1</u> is highly recommended

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0 0 Insertion Loss -0.5 -10 Return Loss -20 -1 Insertion Loss (dB) Return Loss (dB) -1.5 -30 -40 -2 -2.5 -50 -3 -60 60 65 70 75 80 85 90 Frequency (GHz)

Typical Measured Performance vs Frequency

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