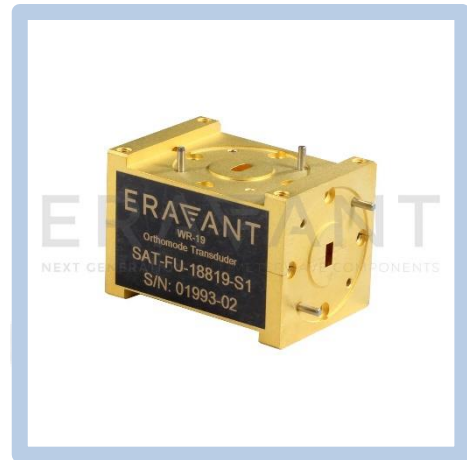




WR-19 Orthomode Transducer, 40 to 60 GHz

Description:

Model SAT-FU-18819-S1 is a WR-19 orthomode transducer (OMT) that operates between 40 and 60 GHz. The OMT separates a circular or elliptical polarized waveform into two linear, orthogonal waveforms or combines two linear polarized waveforms into one circular or elliptical polarized waveform. The OMT shows high port isolation and high cross-polarization cancellation while providing a low insertion loss. The OMT is configured with a 0.188" x 0.188" square waveguide for the antenna port and two WR-19 waveguides for the horizontal and vertical ports. All ports have standard UG-383/U-M anti-cocking flanges.



Features:

- High Isolation
- Low Insertion Loss
- Full Band Performance

Applications:

- Radar Systems
- Communication Systems
- Antenna Ranges
- Waveform polarization separation and combination

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	40 GHz		60 GHz
Insertion Loss, V-Port		0.8 dB	
Insertion Loss, H-Port		0.8 dB	
Isolation (V to H-Port)		40 dB	
Cross Polarization (A-Port to V and H-Port)		35 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

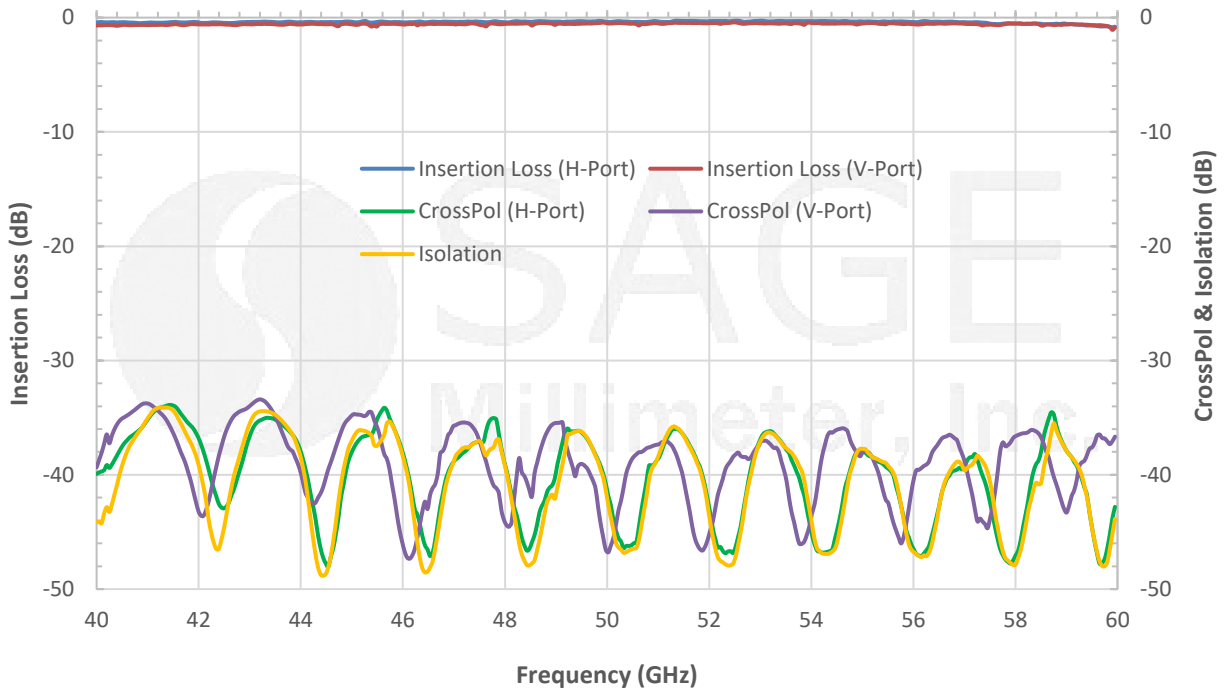
Item	Specification
Antenna Port	0.188" x 0.188" Square Waveguide
Horizontal and Vertical Ports	WR-19 Waveguide
Flange Type	UG-383/U-M Anti-Cocking Flange (on all ports)
Material	Aluminum
Finish	Gold Plated
Weight	3.3 Oz
Size	1.70" (L) x 1.20" (W) x 1.20" (H)
Outline	AT-US-188-F-A



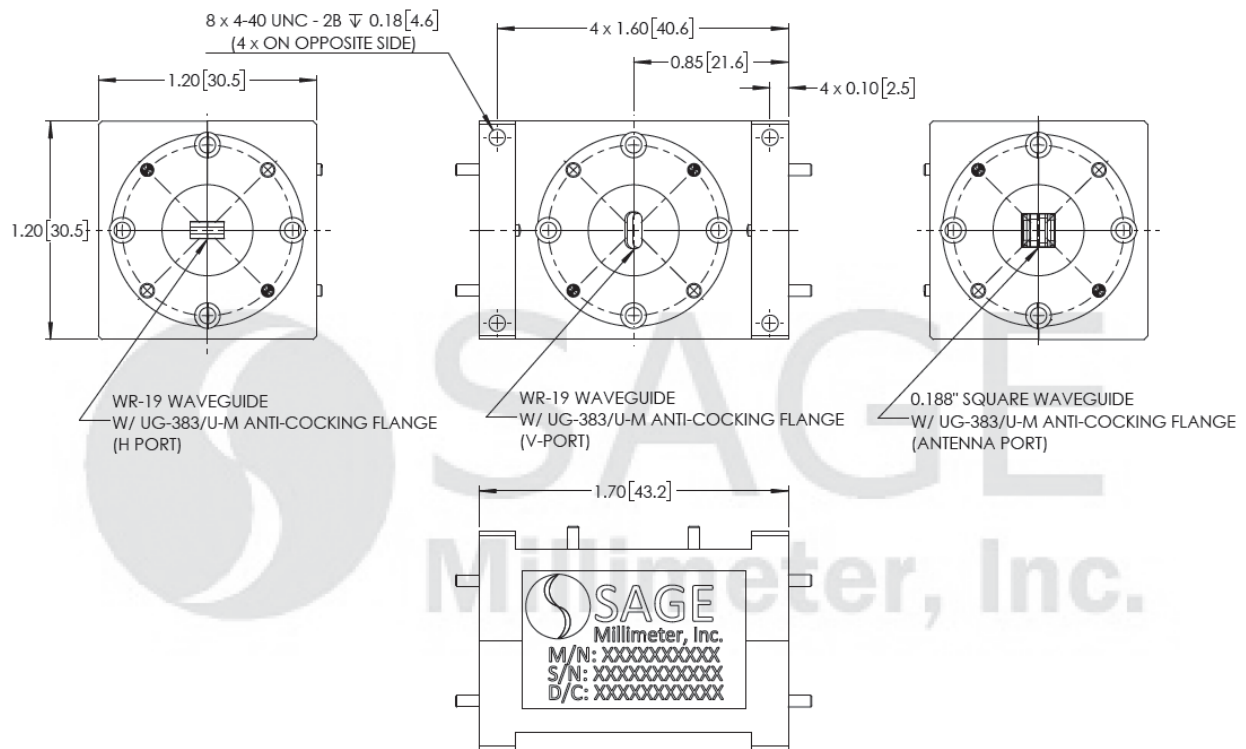


WR-19 Orthomode Transducer, 40 to 60 GHz

Typical Performance vs. Frequency



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





WR-19 Orthomode Transducer, 40 to 60 GHz

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 room temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Foreign objects in the waveguide will cause performance degradation and may damage the device.

