



WR-28 Orthomode Transducer, 24 to 42 GHz

Description

Model SAT-293-35828-S1 is a WR-28 orthomode transducer (OMT) that operates between 24 and 42 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 0.358" diameter circular waveguide for the antenna port and two WR-34 waveguides for the horizontal and vertical ports. All ports have standard UG-599/U flanges with 4-40 threaded holes.



Features:

- High Isolation
- Low Insertion Loss
- Full Band Performance

Applications:

- 5G Systems
- Radar Systems
- Communication Systems
- 5G Systems
- Antenna Ranges
- Waveform polarization separation and combination

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	24 GHz		42 GHz
Insertion Loss, V-Port		0.5 dB	
Insertion Loss, H-Port		0.5 dB	
Isolation (V to H-Port)		40 dB	
Cross Polarization (A-Port to V and H-Port)		35 dB	
Return Loss (All Ports)		17 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

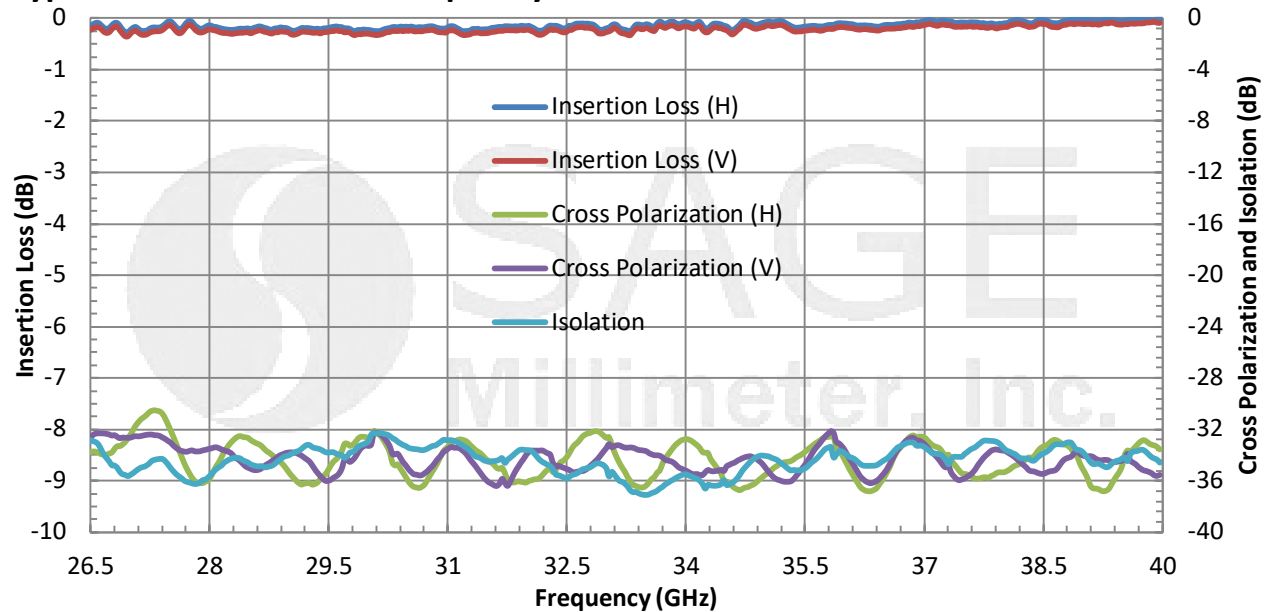
Item	Specification
Antenna Port	0.358" Diameter Circular Waveguide
Horizontal and Vertical Ports	WR-28 Waveguide
Flange Type	UG-599/U Threaded Flange
Material	Aluminum
Finish	Gold Plated
Weight	2.6 Oz
Size	2.50" (L) x 1.50" (W) x 0.88" (H)
Outline	AT-3C-358-N



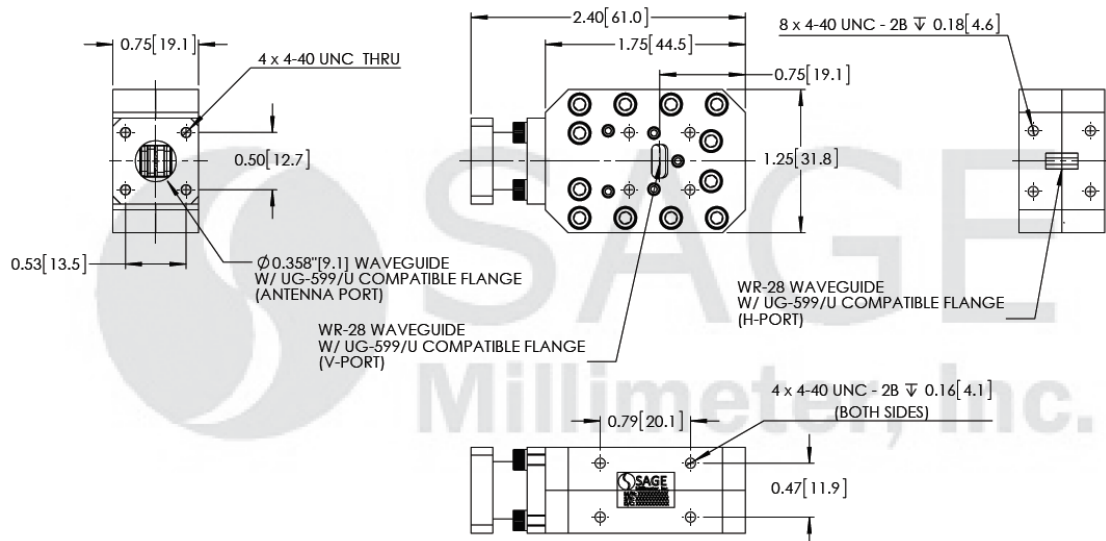


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Typical Performance vs. Frequency



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.
- All testing was performed under +25°C case 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.



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