

SAT-FH1122112-S1

WR-112 Orthomode Transducer, 7 to 10 GHz, Square Antenna Port

SAT-FH1122112-S1 is a WR-112 orthomode transducer (OMT) that operates from 7 to 10 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 supports either vertical or horizontal polarized waveforms with 45 dB typical port isolation. The OMT is configured with a 1.122" square antenna port and two WR-112 standard waveguide ports for the vertical and horizontal ports.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	7 GHz		10 GHz
Insertion Loss (A-Port to V-Port)		0.5 dB	
Insertion Loss (A-Port to H-Port)		0.5 dB	
Isolation (V-Port to H-Port)		45 dB	
Return Loss (H-Port)		15 dB	
Return Loss (V-Port)		15 dB	
Return Loss (A-Port, Vertical)		15 dB	
Return Loss (A-Port, Horizontal)		15 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	1.122" Square Waveguide with UG-51/U Flange
Horizontal and Vertical Ports	WR-112 Waveguide with UG-51/U Flange
Material	Aluminum
Finish	Silver Plated
Weight	2.33 lbs
Outline	AT-HS-1122-F

ECCN

EAR99

FEATURES

- Low Insertion Loss
- High Port Isolation

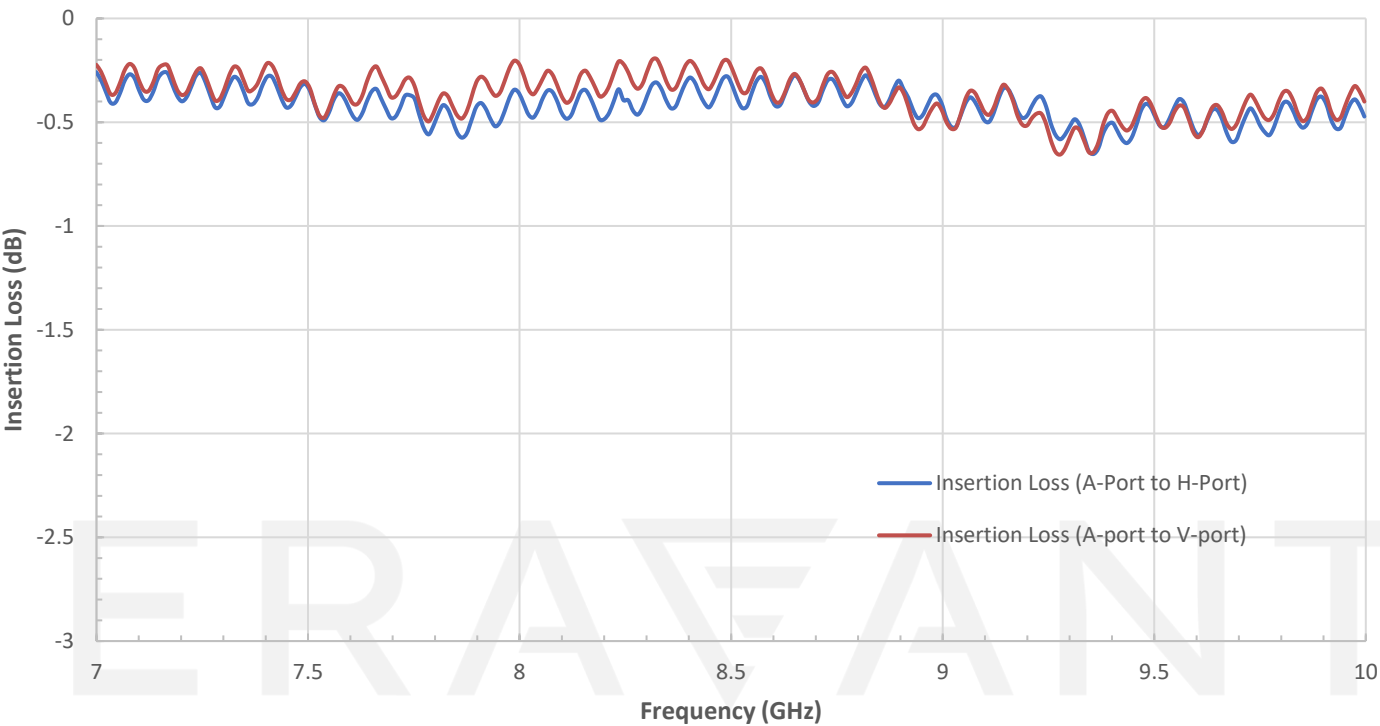
APPLICATIONS

- Radar and Communication Systems
- Antenna Range
- Circular and Linear Waveform Separation and Combination

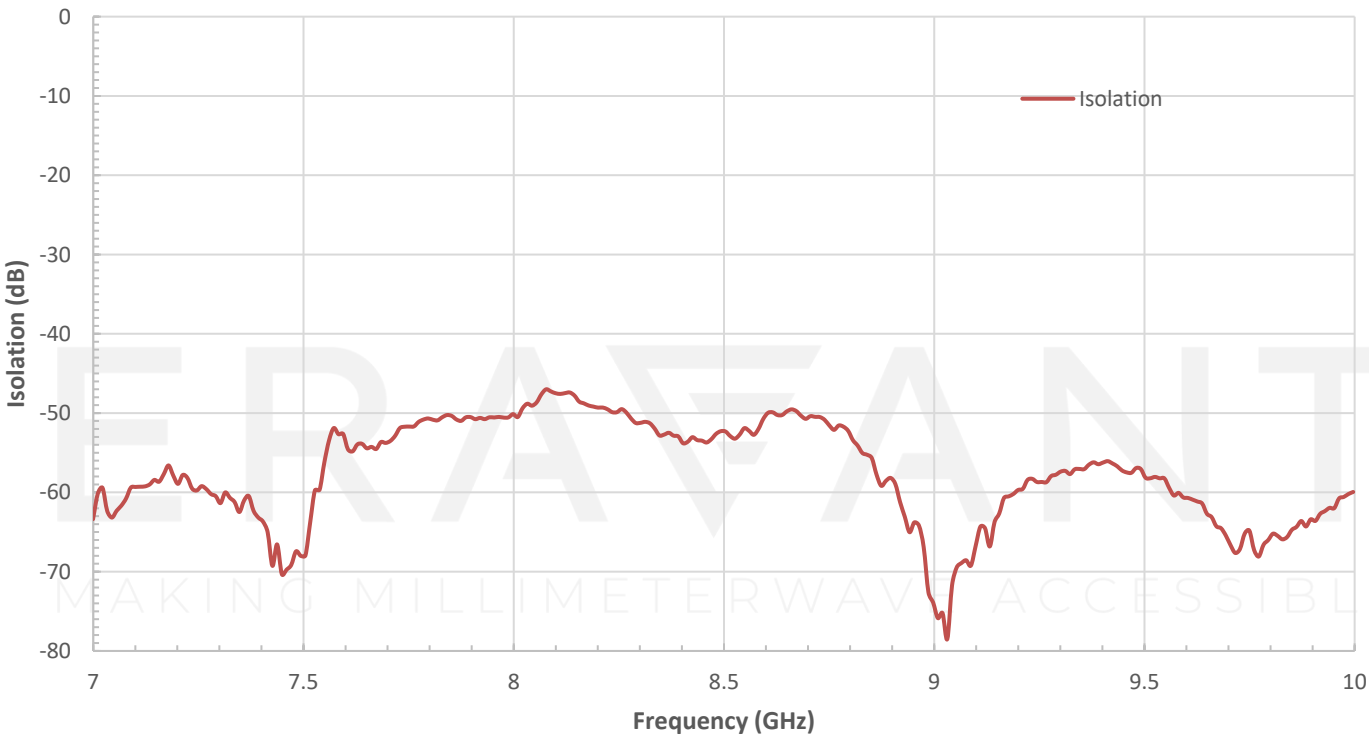
SUPPLEMENTAL DETAILS



Typical Measured Insertion Loss vs Frequency

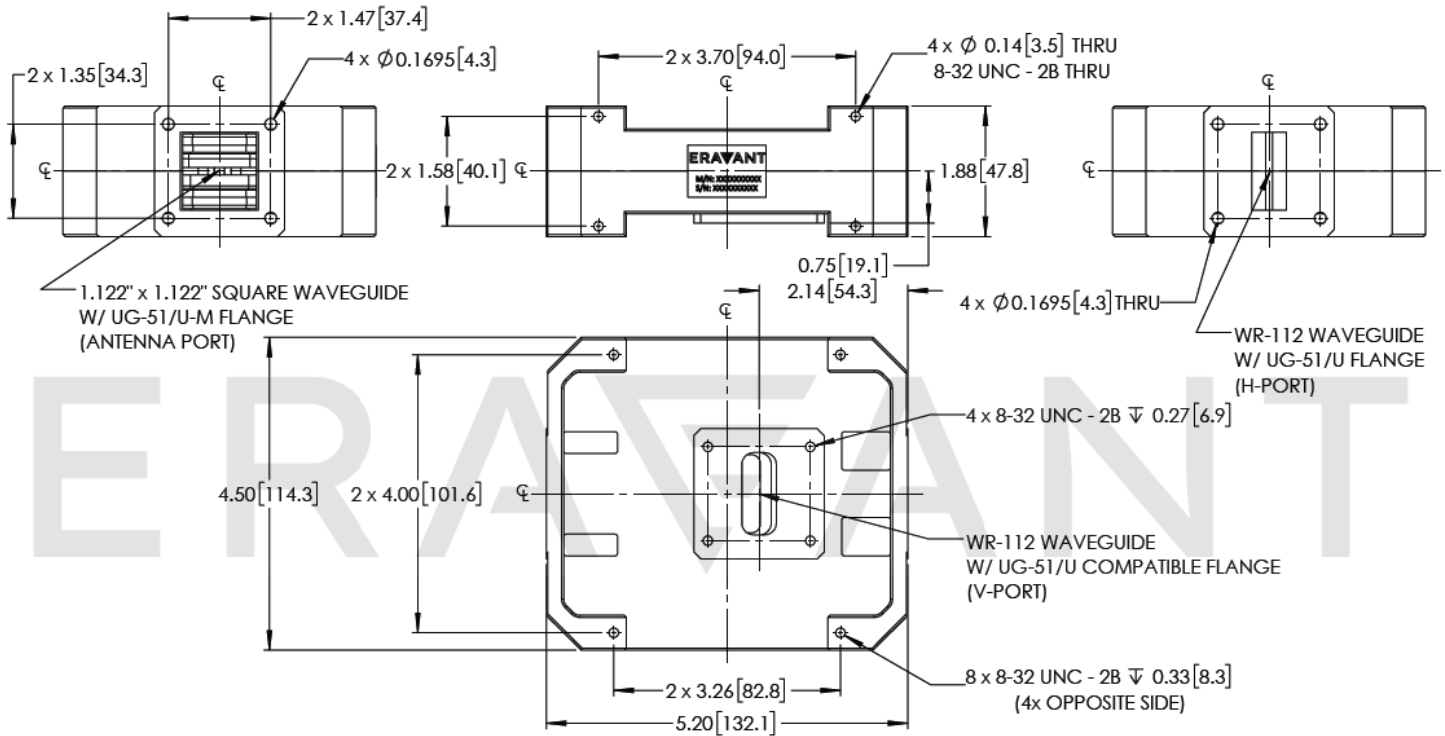


Typical Measured Isolation vs Frequency



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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.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- 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.