SAT-793-12512-C1

WR-12 Orthmode Transducer, 71-86 GHz, Circular Common Port

SAT-793-12512-C1 is an E-Band orthmode transducer (OMT) that operates from 71 to 86 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 or vice versa. The OMT supports vertical and horizontal polarized waveguide forms with high port isolation and low insertion loss. The common antenna port is a 0.125” circular waveguide, while the vertical and horizontal ports are standard WR-12 waveguides with UG-387/U anti-cocking flanges.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	71 GHz		86 GHz
Insertion Loss (A to H Port)		0.5 dB	
Insertion Loss (A to V Port)		0.5 dB	
Isolation (V to H Port)		40 dB	
Return Loss (H Port)		20 dB	
Return Loss (V Port)		20 dB	
Return Loss (A Port, Horizontal)		20 dB	
Return Loss (A Port, Vertical)		20 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	Ø0.125” Circular Waveguide with UG-387/U-M Anti-Cocking Flange
Horizontal & Vertical Ports	WR-12 Waveguide with UG-387/U Anti-Cocking Flanges
Material	Aluminum
Finish	Clear Chem Film
Outline	AT-EC-125-F-A

ECCN

EAR99

FEATURES

- Low Insertion Loss
- Circular Waveguide Common Port

APPLICATIONS

- E-Band Communication Systems
- Antenna Range

SUPPLEMENTAL DETAILS

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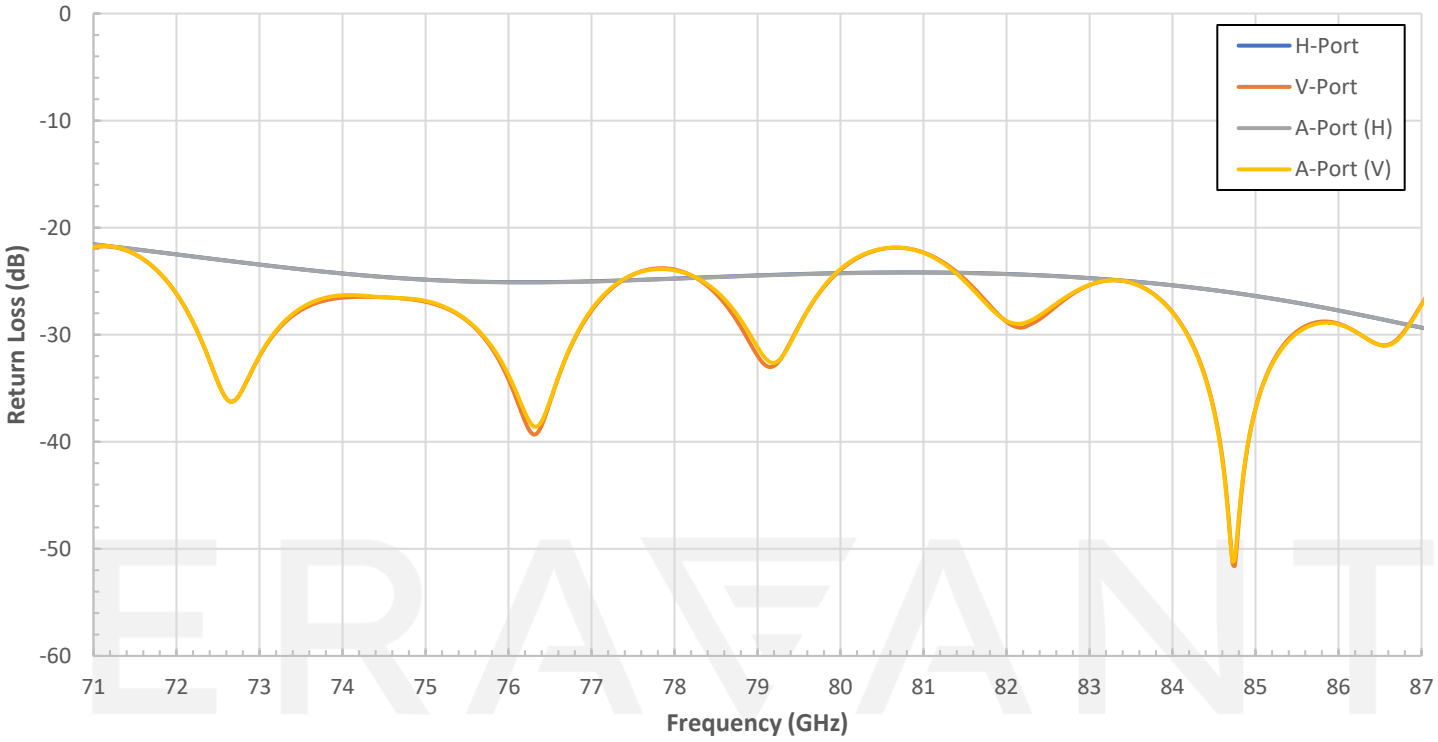
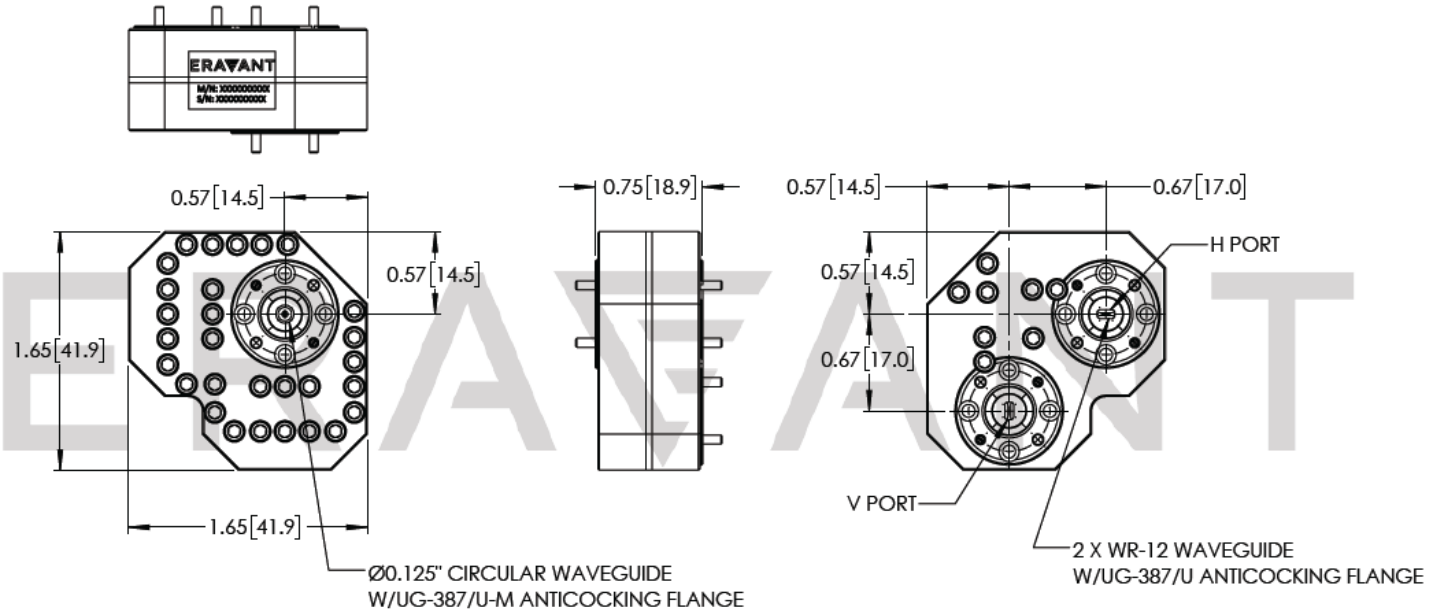
Typical Return Loss vs Frequency



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



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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:

- Any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.

MAKING MILLIMETERWAVE ACCESSIBLE

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