SAT-363-31528-C1

Broadband WR-28 Orthomode Transducer, 24 to 48 GHz, Circular Common Port

SAT-363-31528-C1 is a broadband orthomode transducer (OMT) that operates from 24 to 48 GHz. This model is specifically designed to cover 5G FR2 bands n257 thru n262. 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 0.315” diameter circular waveguide, while the vertical and horizontal ports are standard WR-28 waveguides with UG-599/U flanges.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	24 GHz		48 GHz
Insertion Loss (A to H Port)		0.8 dB	
Insertion Loss (A to V Port)		0.8 dB	
Isolation (V to H Port)		35 dB	
Return Loss (H Port)		12 dB	
Return Loss (V Port)		12 dB	
Return Loss (A to H Port)		12 dB	
Return Loss (A to V Port)		12 dB	
Specification Temperature		+25 ˚C	
Operating Temperature	-40 ˚C		+85 ˚C

Mechanical Specifications:

Item	Specification
Common Antenna Port	0.315” Diameter Circular Waveguide
Horizontal and Vertical Ports	WR-28 Waveguide
Flange Type	UG-599/U Compatible Flange
Material	Aluminum
Finish	Gold Plated
Weight	11.2 oz.
Outline	AT-AC-315-B

ECCN

EAR99

FEATURES

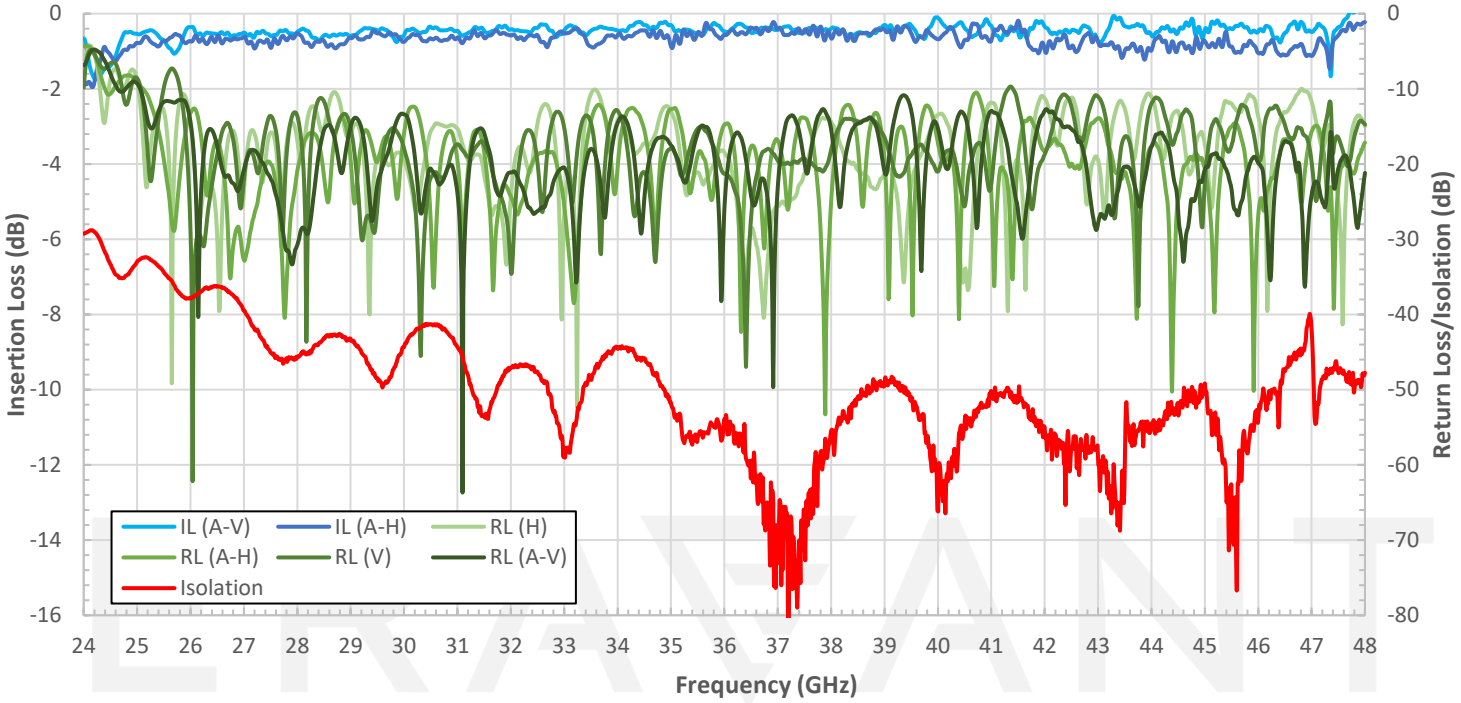
- Broad Band Coverage
- High Port Isolation
- Low Insertion Loss
- Circular Waveguide Common Port
- Standard WR-28 Rectangular Horizontal/Vertical Ports

APPLICATIONS

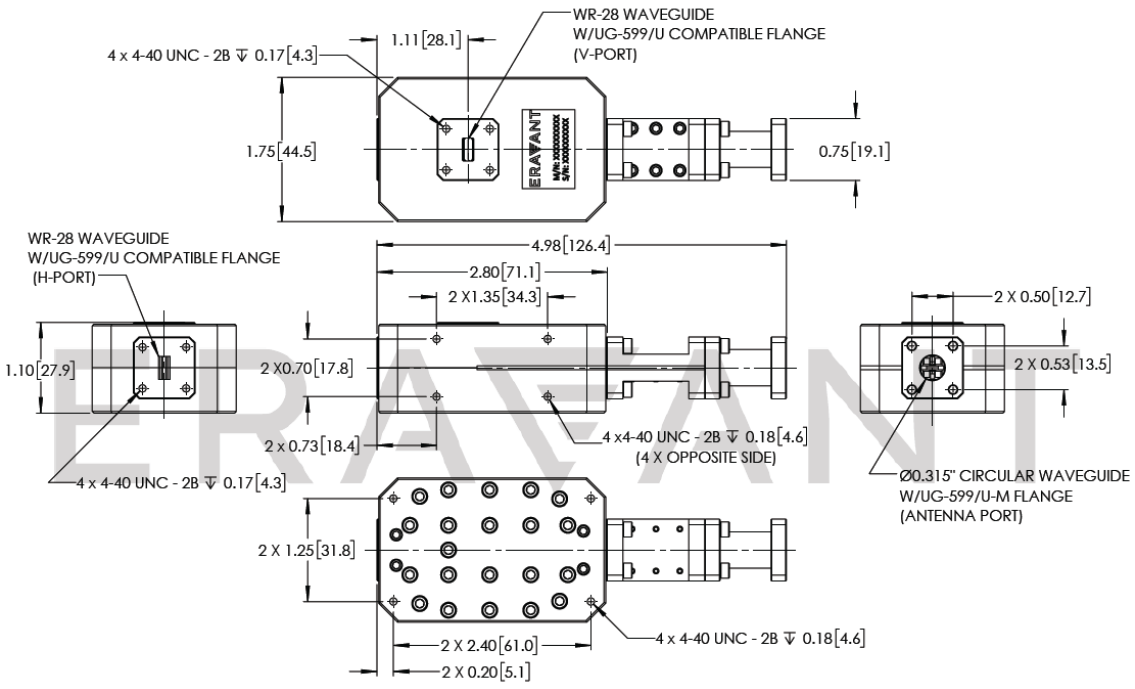
- 5G FR2 Bands (n257 to n262)
- Radar Systems
- Communication Systems
- Antenna Range

SUPPLEMENTAL DETAILS

Typical Measured Performance vs Frequency



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



NOTE:

- Test data provided 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:

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

MAKING MILLIMETERWAVE ACCESSIBLE