SAS-144-07506-F1-3

WR-06 Linear to Circular Polarizer, 110 to 170 GHz

SAS-144-07506-F1-3 is an D band, linear to circular polarizer that operates from 110 GHz to 170 GHz. The polarizer offers a typical insertion loss of 1.5 dB, typical axial ratio of 1.2, and a typical return loss of 20 dB. The polarizer is fixed and can be used for either right-handed or left-handed polarization based on the direction of the input signal. The polarizer is often combined with Eravant's rectangular to circular waveguide transition (**SWT-06075-SB**) and WR-06 Conical horn antenna **(SAC-2309-075-S2)** for various system applications.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	110 GHz		170 GHz
Insertion Loss		0.5 dB	
Axial Ratio		1.2	
Return Loss		20 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
RF Ports	ø 0.075" Waveguide with UG-387/U-M Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Weight	0.06 Oz
Outline	AS-FDF-075-A

ECCN

EAR99

FEATURES

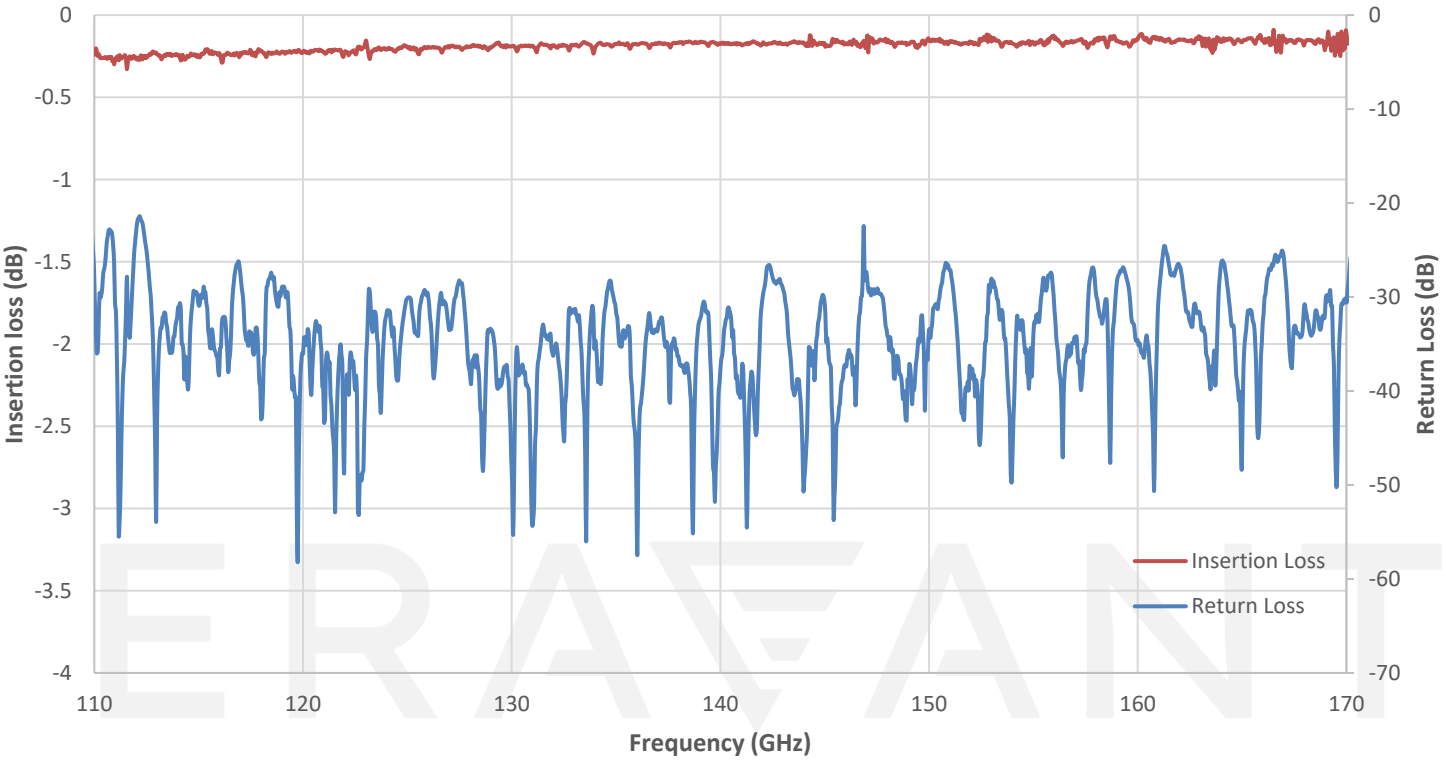
- Full Band Coverage
- Compact Size
- Good Axial Ratio

APPLICATIONS

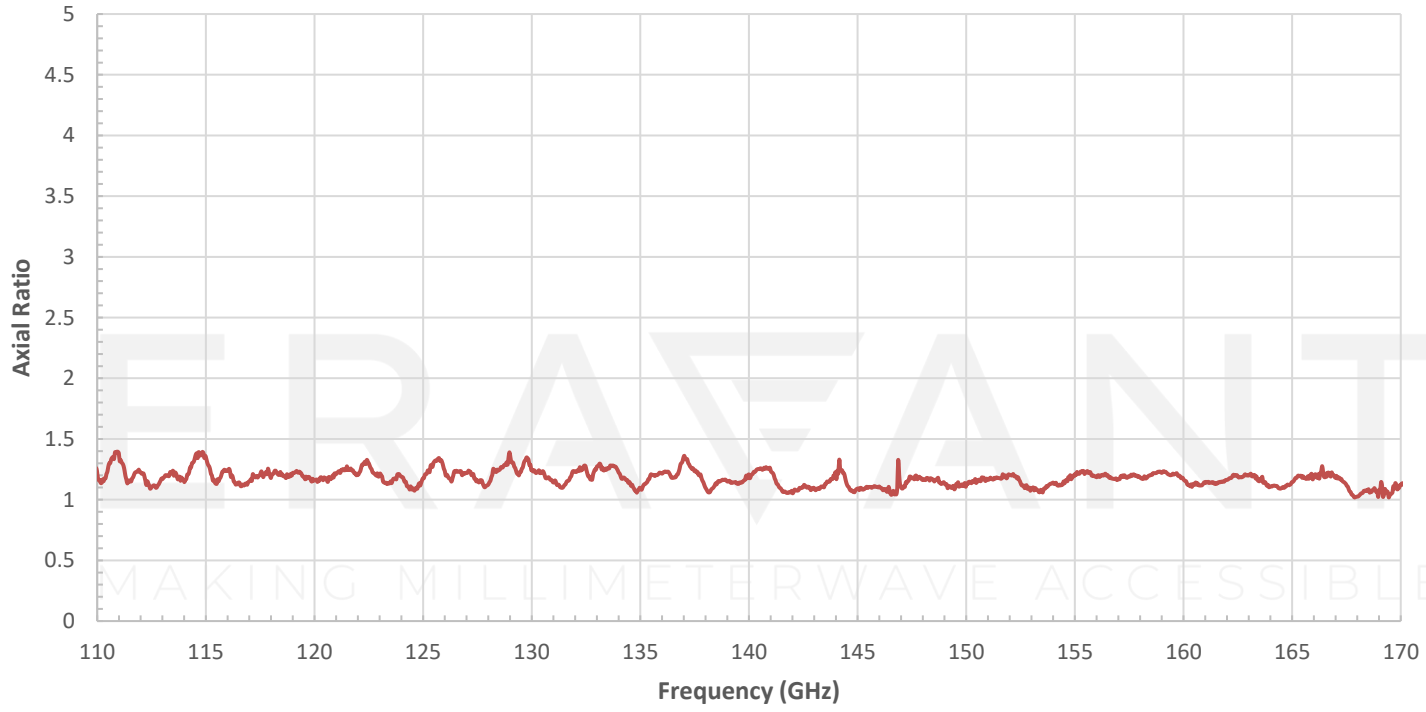
- Antenna Ranges
- Waveguide Polarization Selection
- Communication Systems

SUPPLEMENTAL DETAILS

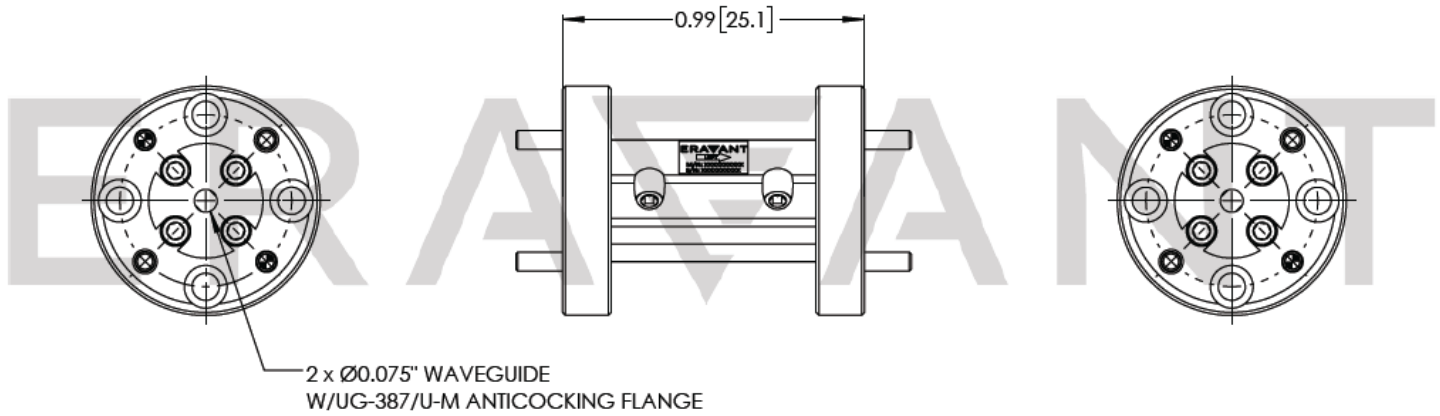
Measured Insertion Loss, Return Loss vs Frequency



Measured Axial Ratio vs. Frequency



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



NOTE:

- The Polarizer is offered as LHCP. However, it can be used as RHCP by reversing the input and output ports.
- 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:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.