

SAS-333-31528-F1

WR-28 Linear to Circular Polarizer, 26.5 to 40 GHz

SAS-333-31528-F1 is an Ka band, linear to circular polarizer that operates from 26.5 GHz to 40 GHz. The polarizer offers a typical insertion loss of 0.5 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-28315-SB](#)) and WR-28 Conical horn antenna ([SAC-2309-315-S2](#)) for various system applications.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	26.5 GHz		40 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 0.315" Circular Waveguide with UG-599/U Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Outline	AS-FAF-315

ECCN

EAR99

FEATURES

- Full Band Coverage
- Compact Size
- Good Axial Ratio

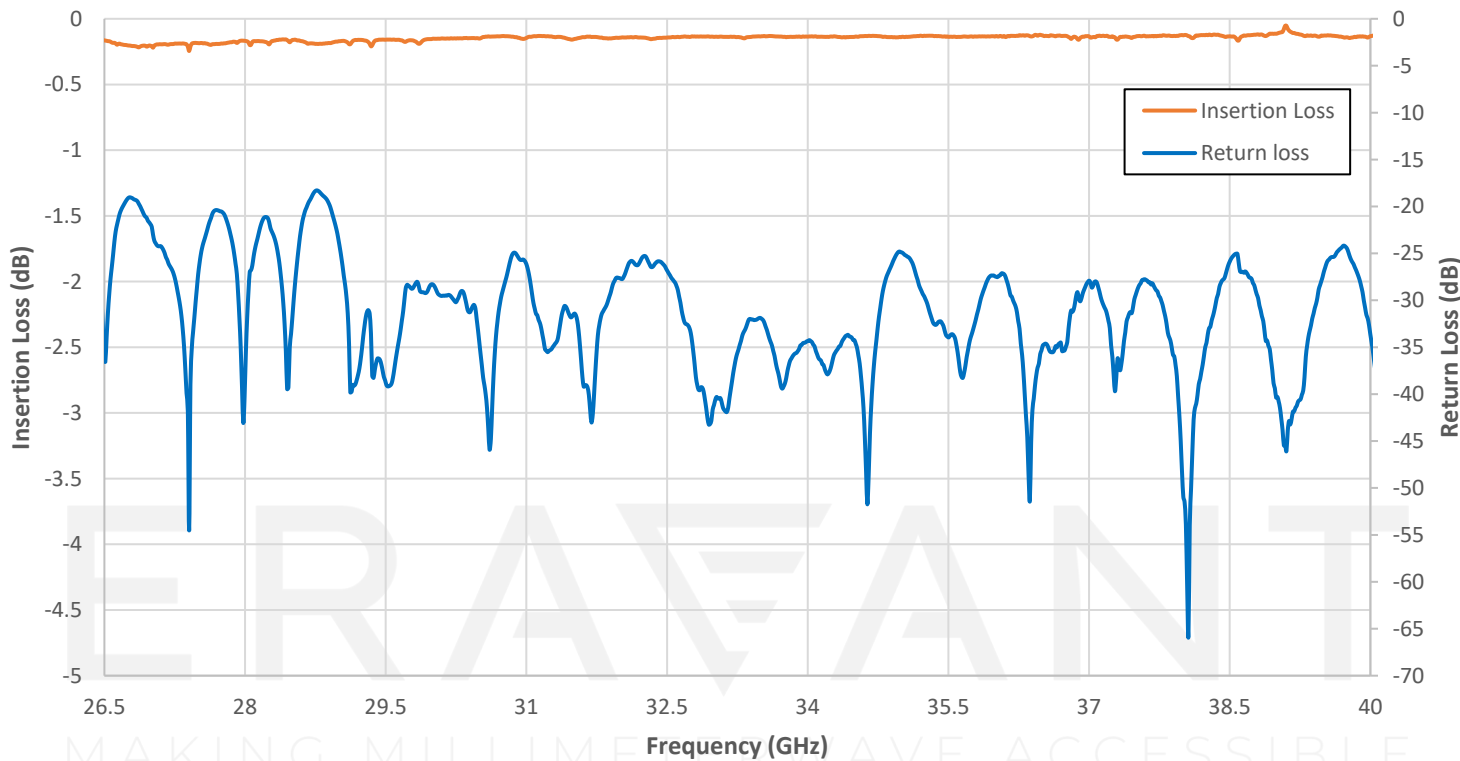
APPLICATIONS

- Antenna Ranges
- Waveguide Polarization Selection
- Communication Systems

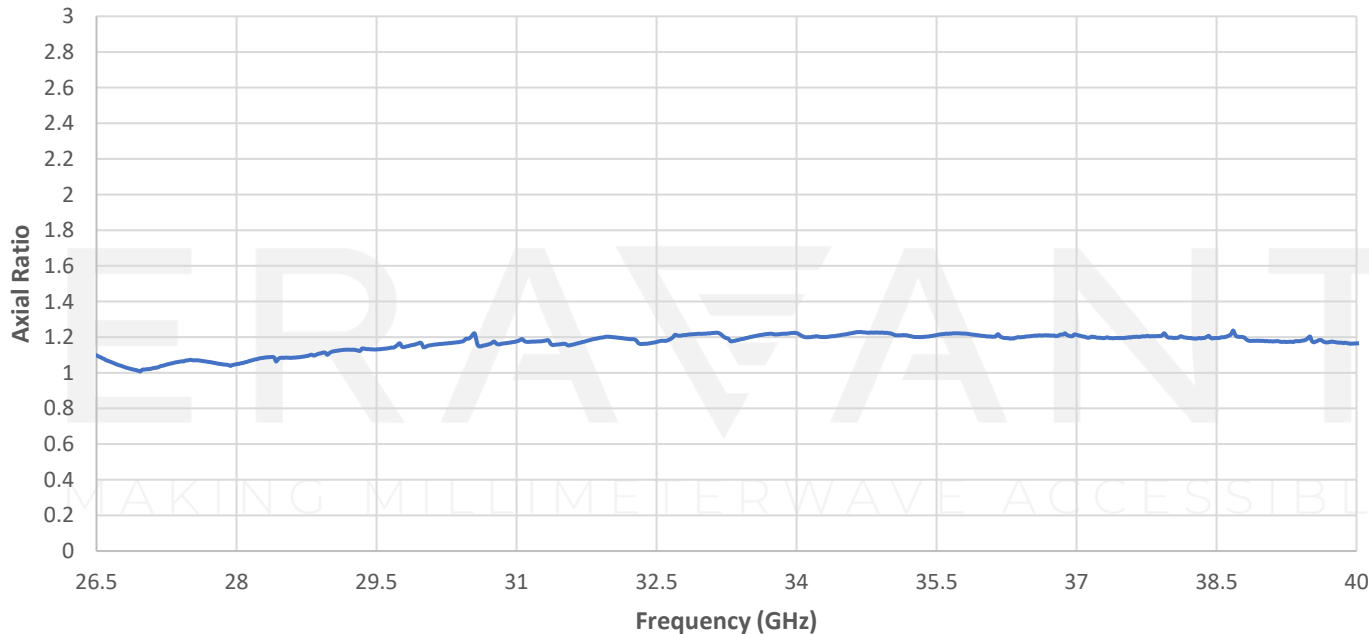
SUPPLEMENTAL DETAILS



Measured Insertion Loss, Return Loss Vs Frequency

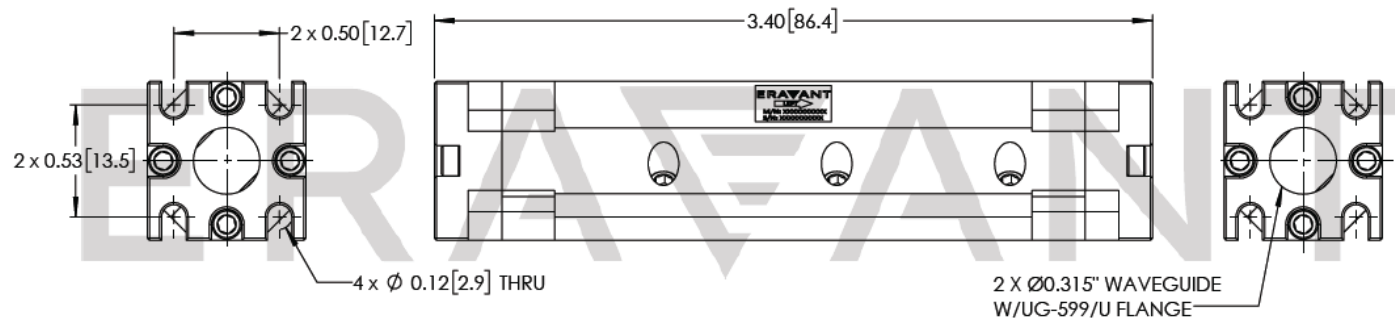


Measured Axial Ratio Vs Frequency



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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.