

SAF-2434231725-328-S1

Ka Band Scalar Feed Horn Antenna, 24 to 42 GHz, 17 dBi Gain

SAF-2434231725-328-S1 is a Ka-band scalar feed horn antenna that covers several popular 5G bands in the frequency range of 24 to 42 GHz. The horn antenna offers a nominal gain of 17 dBi, typical half power beamwidth of 25 degrees and side lobe levels of -25 dB or lower. The antenna port is a 0.328" diameter circular waveguide with a UG-599/U-M flange that supports both linear and circular polarized waveforms. A rectangular waveguide port configuration that only supports linear polarization is available under a different model number. The dual polarized configuration with orthomode transducer integrated is available under the model **SAF-2434231725-328-S1-280-DP**.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	24 GHz	33 GHz	42 GHz
Gain		17 dBi	
3 dB Beamwidth, E-plane		25°	
3 dB Beamwidth, H-plane		25°	
Sidelobes, E-plane		-25 dB	
Sidelobes, H-plane		-25 dB	
Return Loss		15 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	0.328" Diameter Circular Waveguide with UG-599/U-M Flange
Material	Aluminum
Finish	Gold Plated
Weight	3.2 Oz
Outline	AF-CA17-328

ECCN

EAR99

FEATURES

- 24 to 42 GHz Operations
- Low Sidelobe Level
- Linear and Circular Polarizations
- High Return Loss

APPLICATIONS

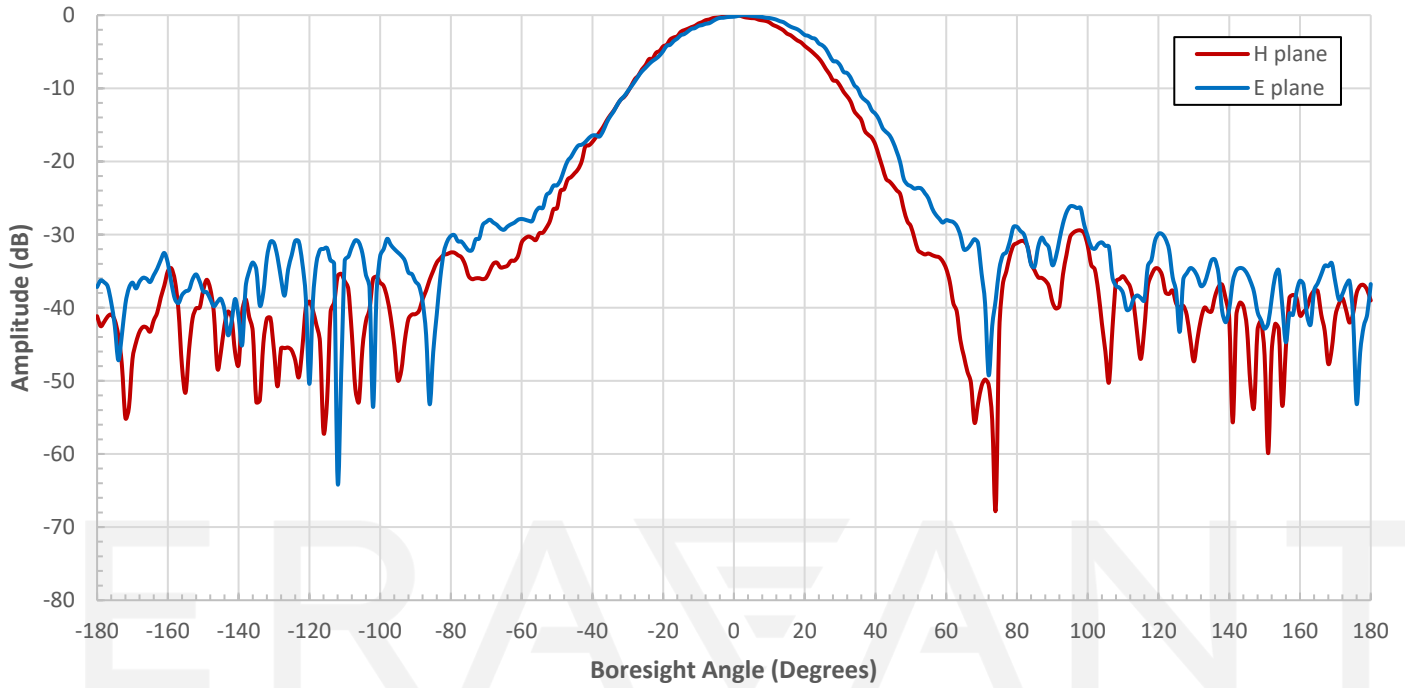
- Feed Horn for Gaussian Optical Antennas
- Feed Horn for Cassegrain Antennas
- Rapid System Setups
- Engineering Setups

SUPPLEMENTAL DETAILS

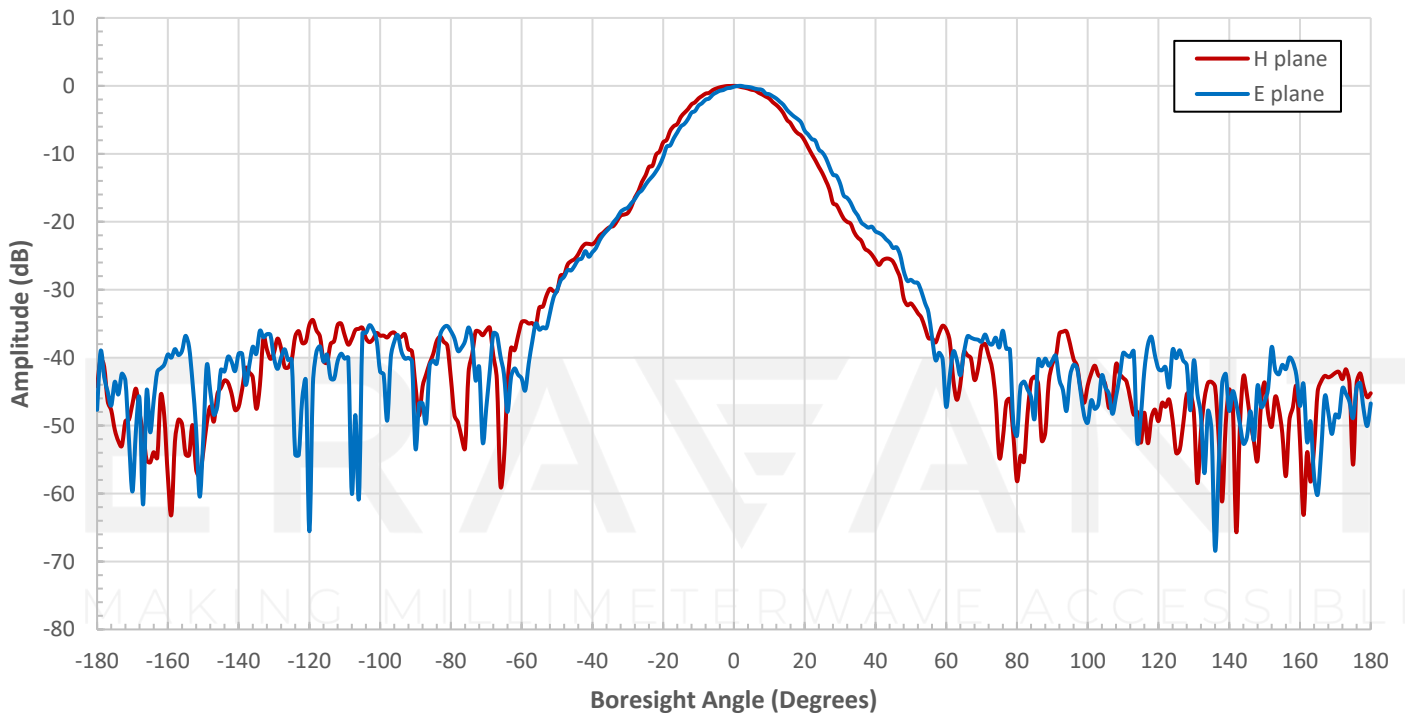
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Measured Pattern @ 24 GHz

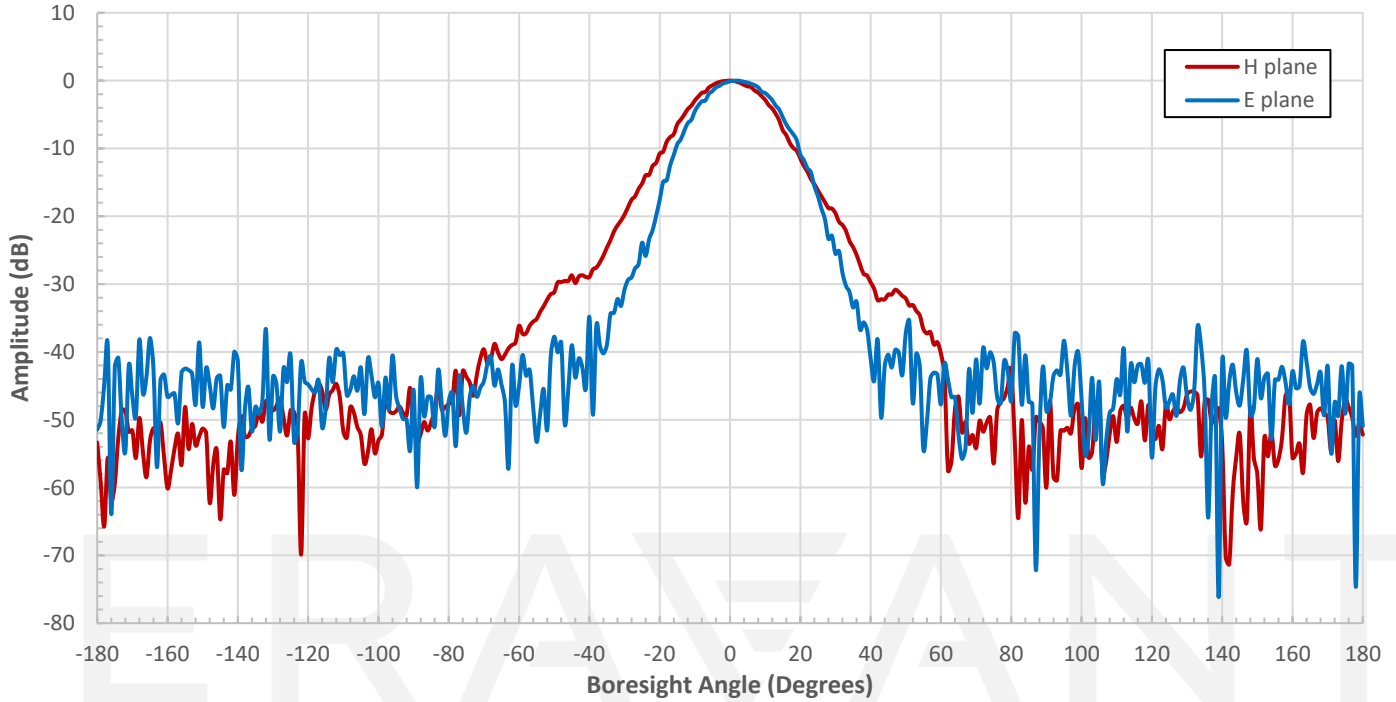


Measured Pattern @ 33 GHz

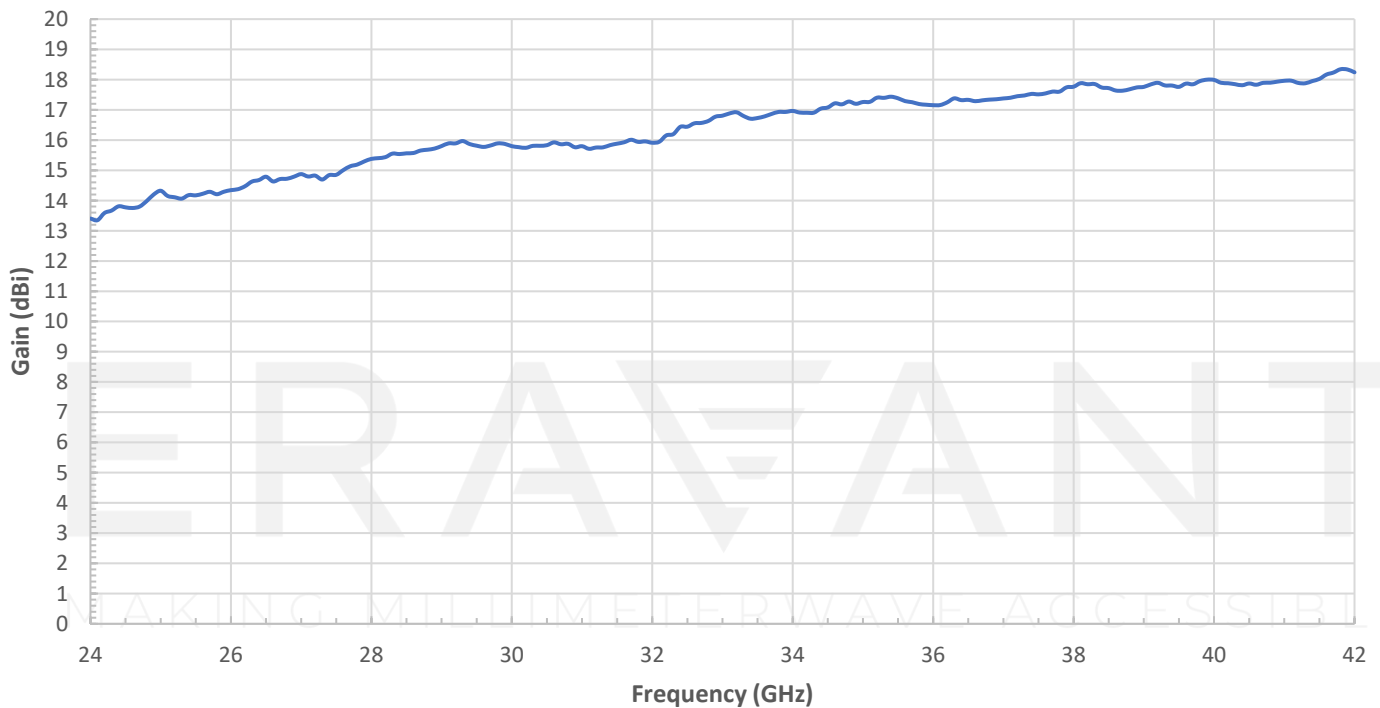


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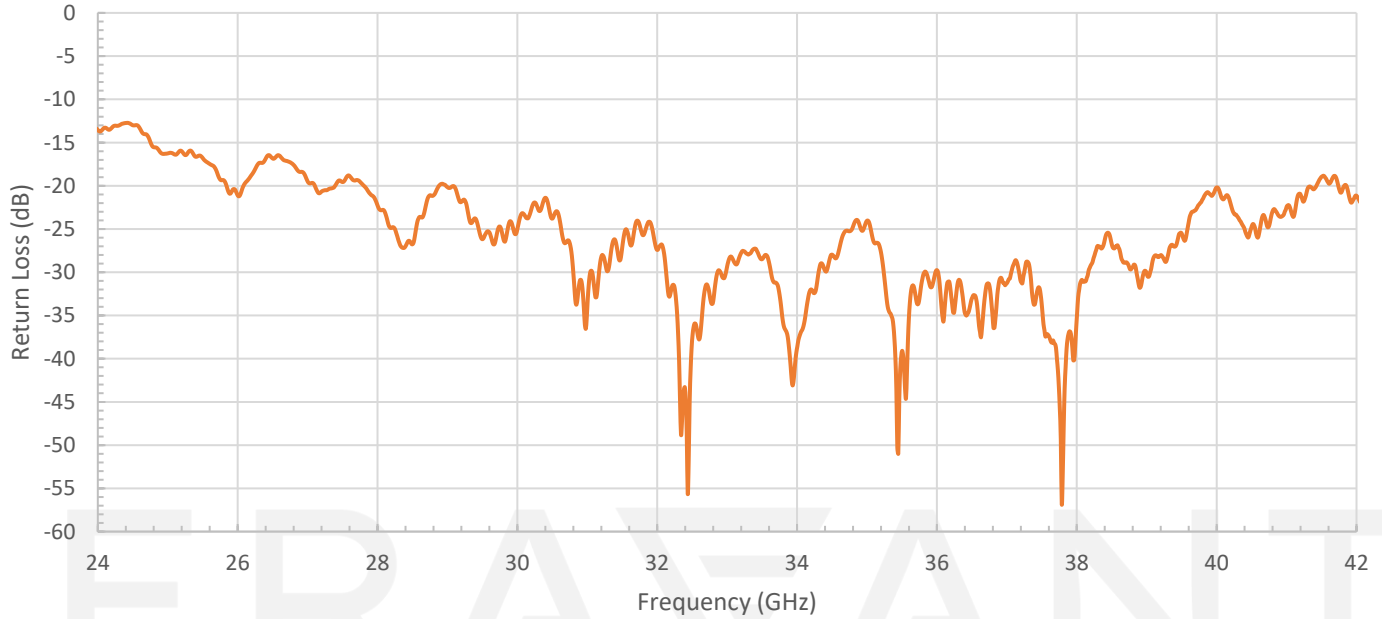
Measured Pattern @ 42 GHz



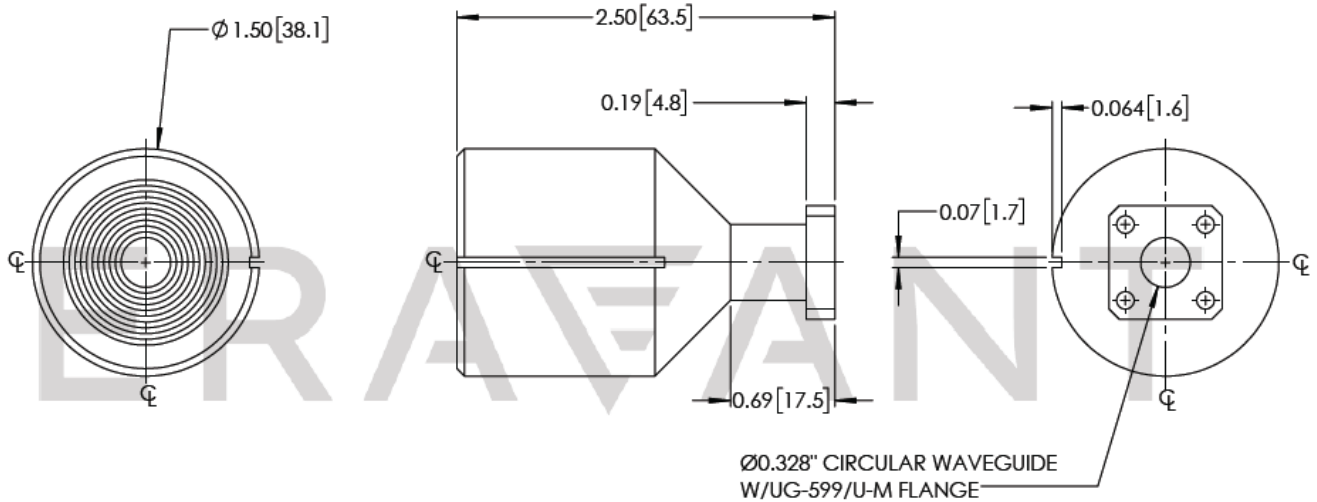
Measured Gain vs Frequency



Measured Return Loss Vs Frequency



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



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NOTE:

- Test data provided is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25°C room temperature.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- Any Foreign objects in the antenna or waveguide will cause performance degradation and possible device damage.

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