

SAF-3333931725-250-S1

Ka Band Scalar Feed Horn Antenna, 33 to 38.5 GHz, 17 dBi Gain

SAF-3333931725-250-S1 is a Ka band scalar feed horn antenna that operates from 33 to 38.5 GHz. The antenna offers a 17 dBi nominal gain, 25 degree typical half power beamwidth, and -28.5 dB typical side lobe level. The scalar feed horn is equipped with a 0.250" diameter circular waveguide that supports both linear and circular polarization. A rectangular waveguide port configuration that only supports linear polarization is available under a different model number.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	33.00 GHz	35.75 GHz	38.50 GHz
Gain		17 dB	
3 dB Beamwidth, E-plane		25°	
3 dB Beamwidth, H-plane		25°	
Side Lobes, E-plane		-28.5 dB	
Side Lobes, H-plane		-28.5 dB	
Return Loss		20 dB	
Polarization		Linear & Circular	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

Item	Specification
Antenna Port	0.250" Diameter Circular Waveguide
Flange Type	UG-599/U-M
Material	Aluminum
Finish	Gold Plated
Weight	2.5 Oz
Outline	AF-CA17-250

ECCN

EAR99

FEATURES

- Circular Waveguide Interface
- Precisely Machined
- Low Side Lobe Level
- High Return Loss
- Linear and Circular Polarization

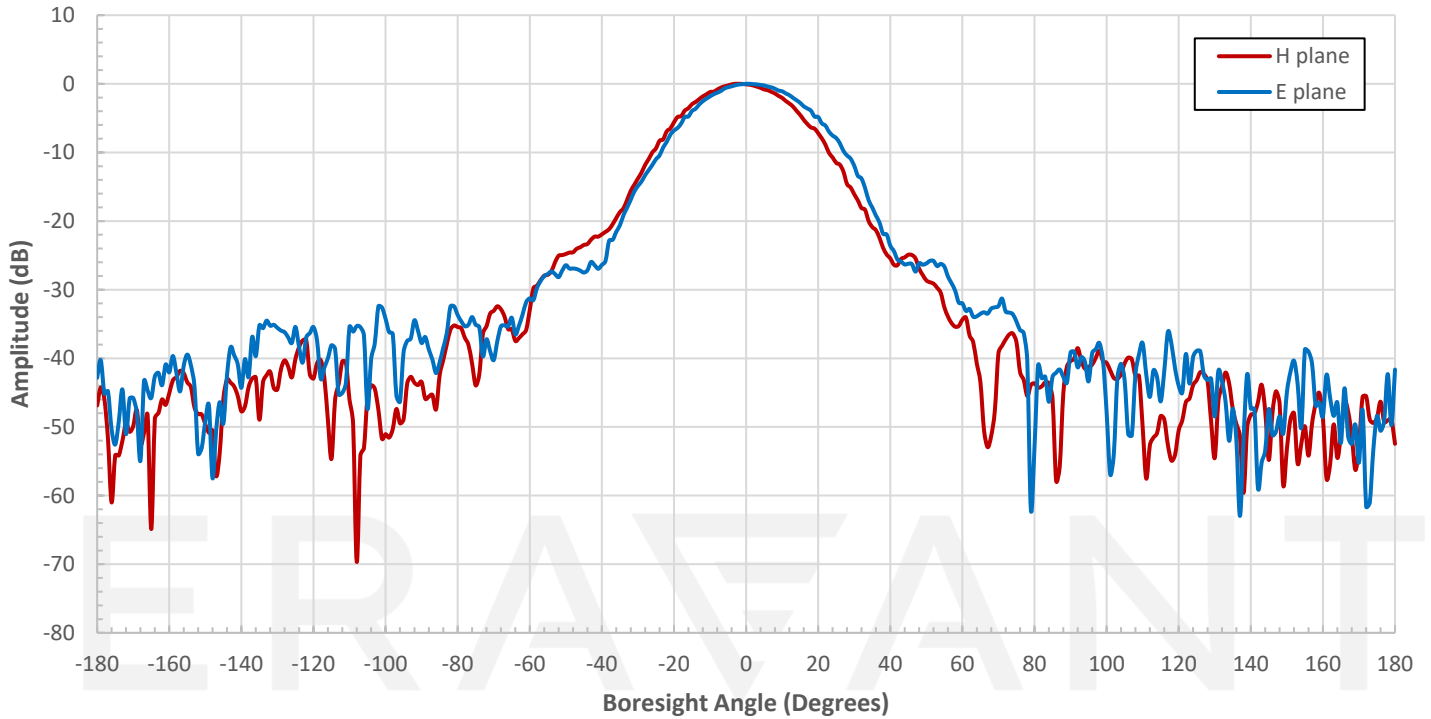
APPLICATIONS

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

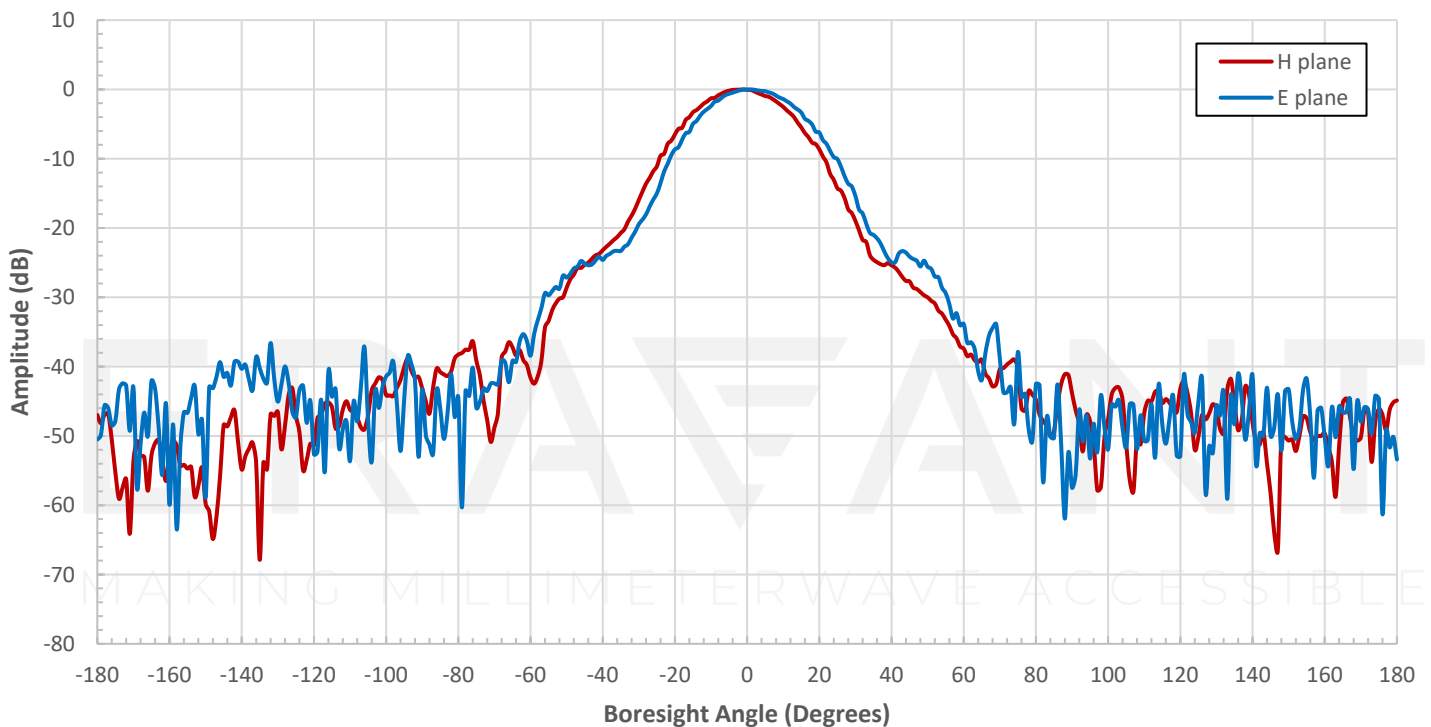
SUPPLEMENTAL DETAILS



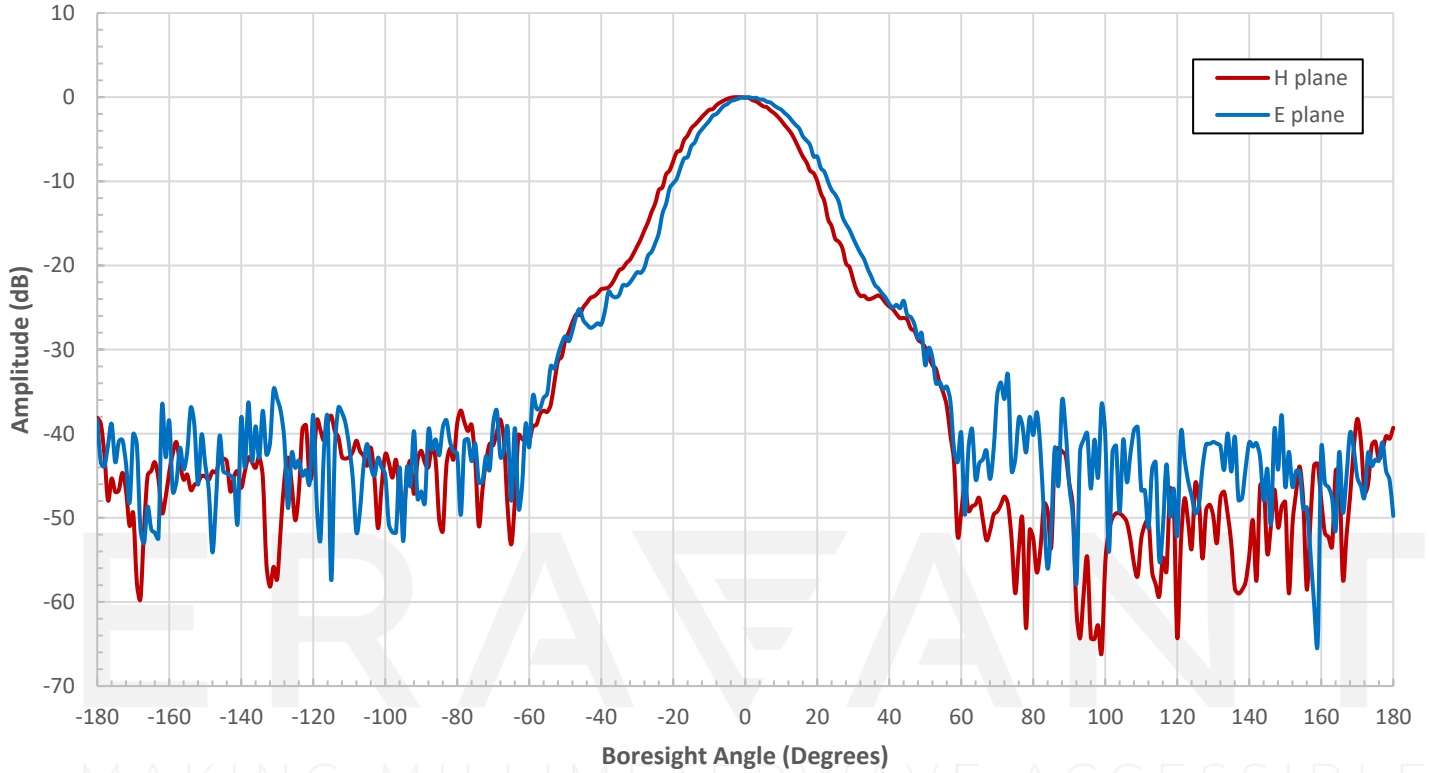
Measured Pattern @ 33 GHz



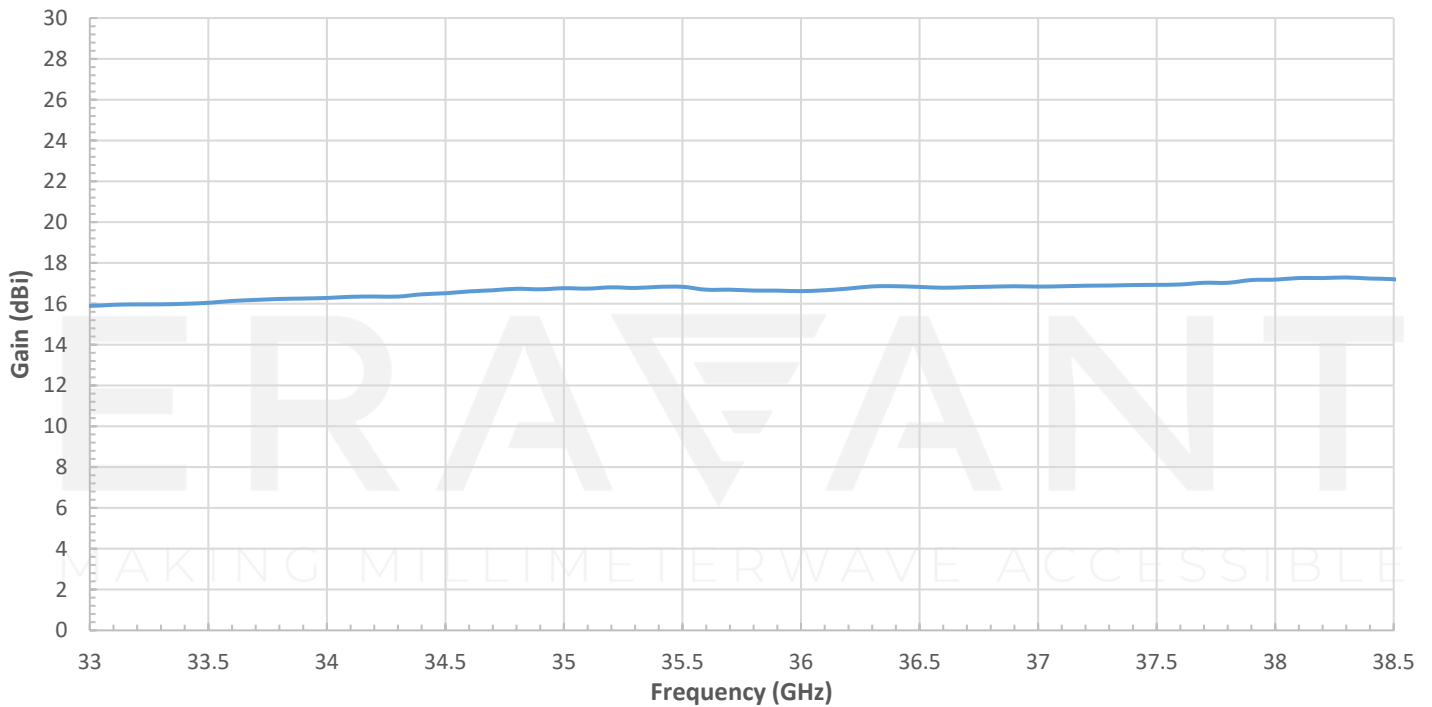
Measured Pattern @ 35.8 GHz



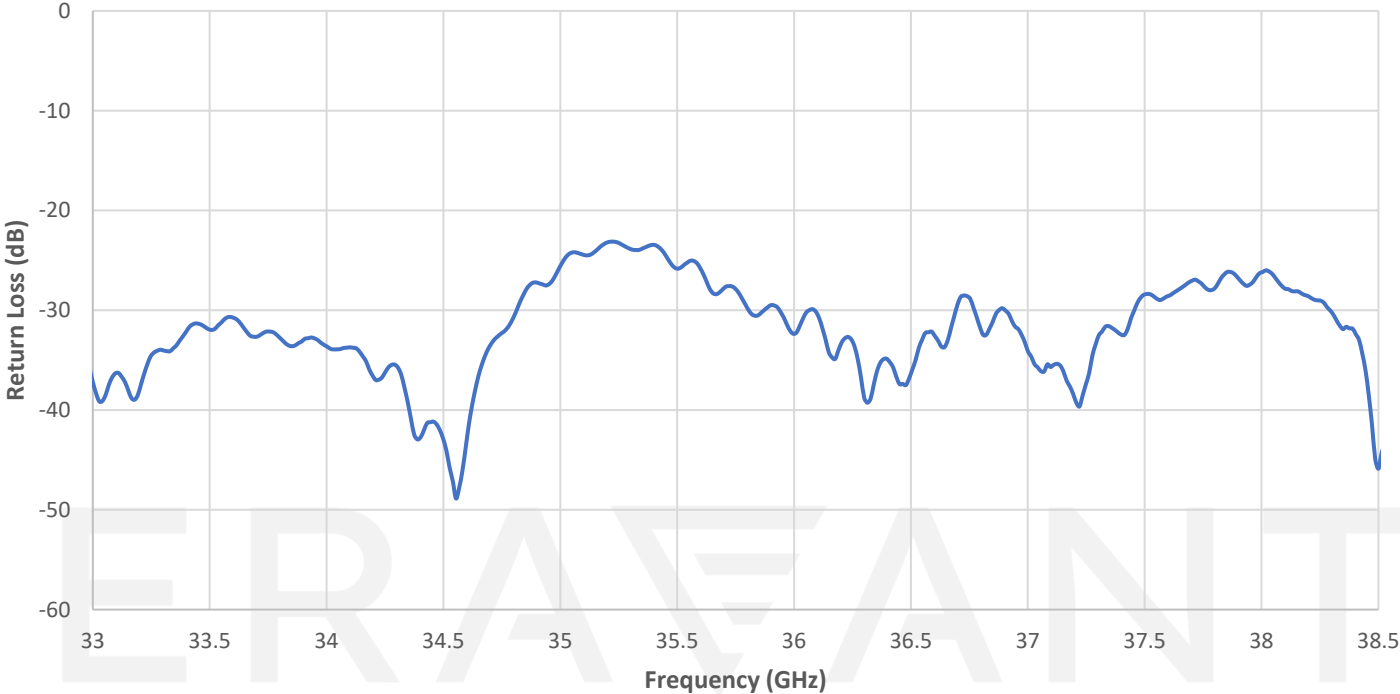
Measured Pattern @ 38.5 GHz



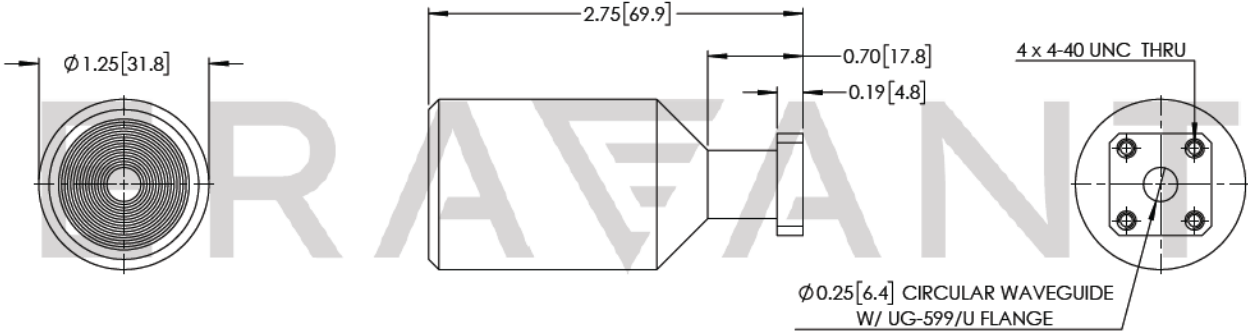
Measured Gain vs Frequency



Measured Return Loss 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 antenna will cause performance degradation and possible device damage.

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