

WR-34 Scalar Feed Horn Antenna, 16 dBi Gain

SAF-2433331628-328-S1 is a WR-34 scalar feed horn antenna that operates from 24 to 33 GHz. The antenna offers a 16 dB nominal gain, 28 degree typical half power beamwidth, and -25 dB typical sidelobe level. The scalar feed horn is equipped with a 0.328" 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	24.0 GHz	28.5 GHz	33.0 GHz
Gain		16 dBi	
3 dB Beamwidth, E-plane		28°	
3 dB Beamwidth, H-plane		28°	
Sidelobes, E-plane		-25 dB	
Sidelobes, H-plane		-25 dB	
Return Loss		20 dB	
Polarization		Linear and Circular	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

Item	Specification
Antenna Port	0.328" Diameter Circular Waveguide
Flange Type	UG-1530/U
Size	2.75" (L) x 1.40" (Ø)
Material	Aluminum
Finish	Gold Plated
Weight	3.1 Oz
Outline	AF-C316-328



ECCN

EAR99

FEATURES

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

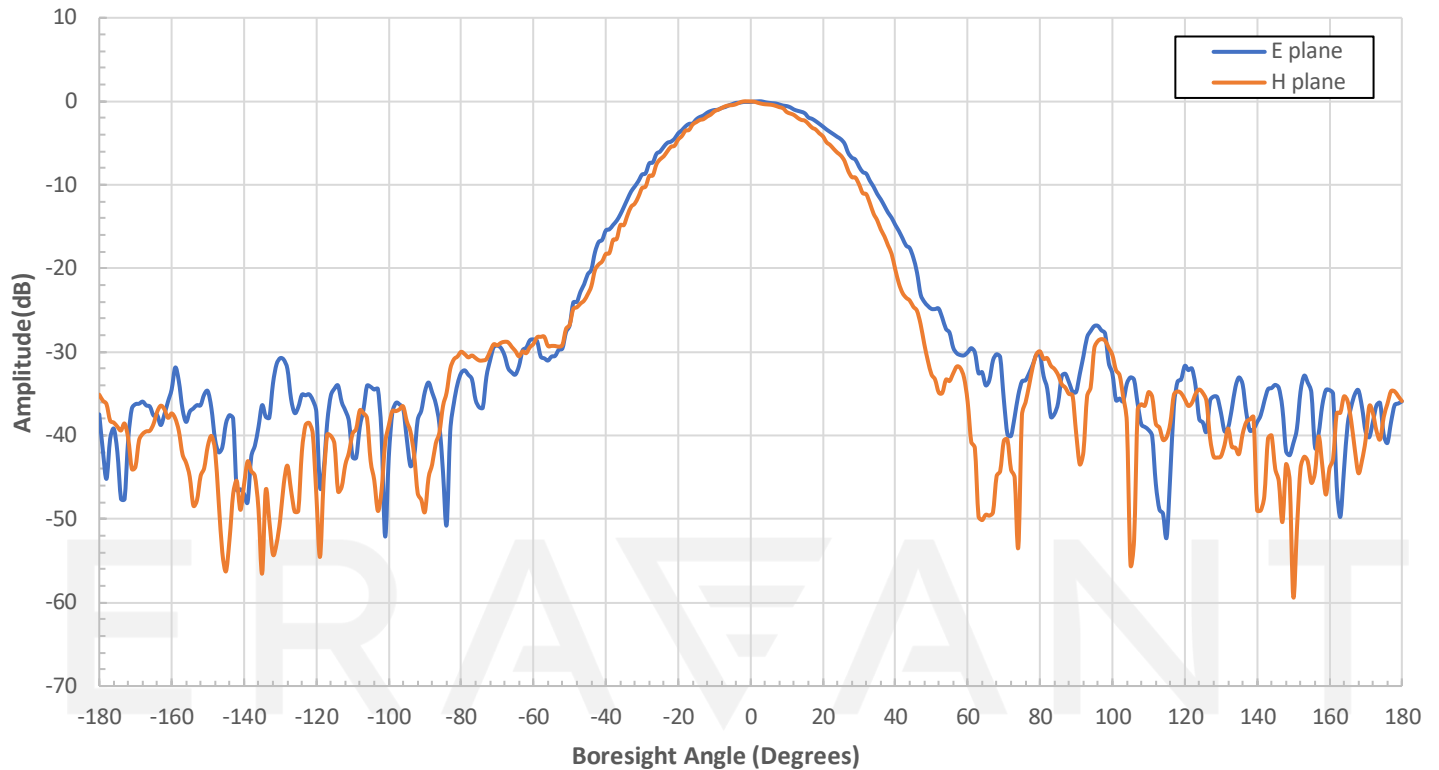
APPLICATIONS

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

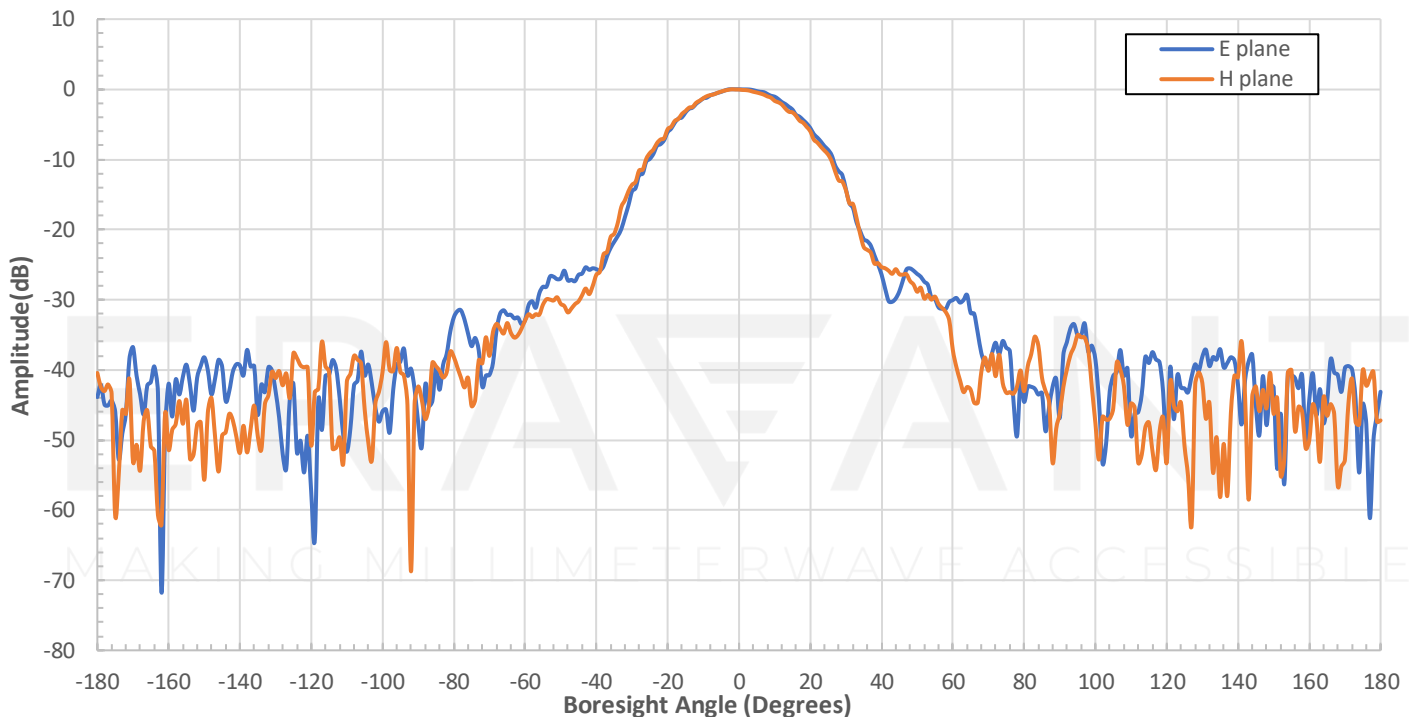
SUPPLEMENTAL DETAILS



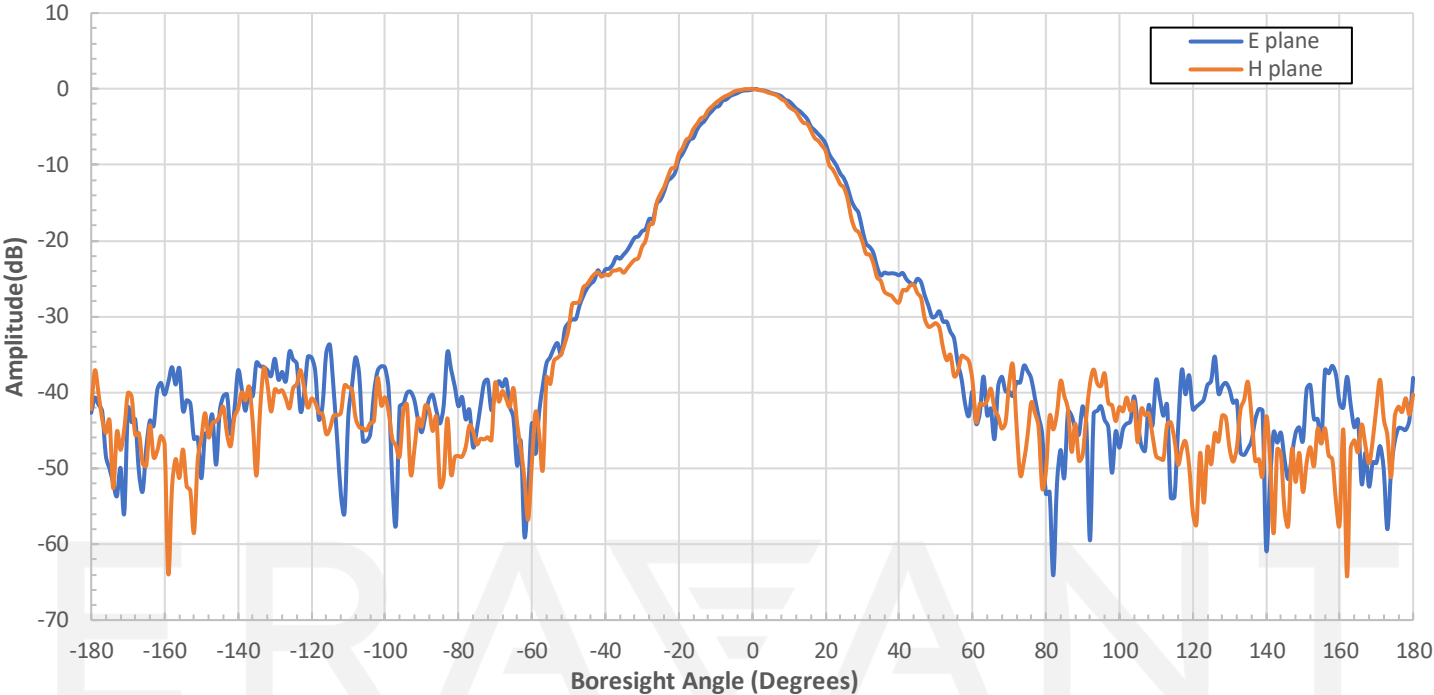
Measured Patterns at 24 GHz



Measured Patterns at 28.5 GHz

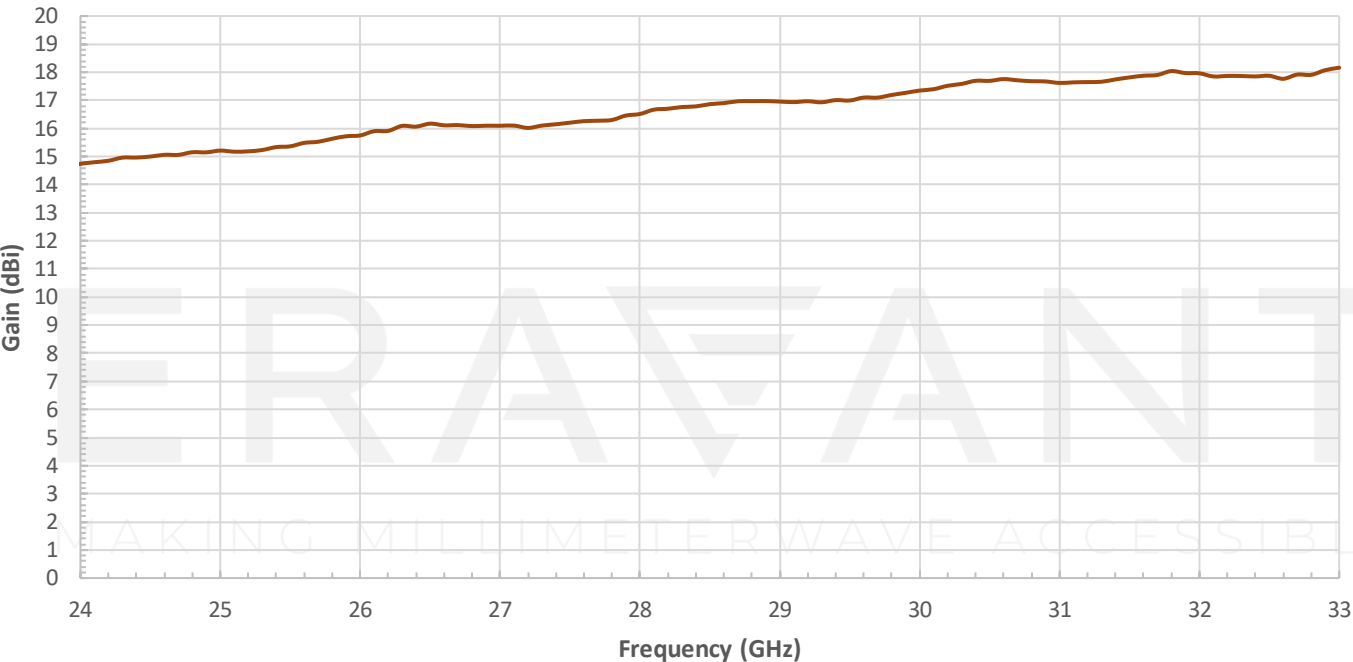


Measured Patterns at 33 GHz



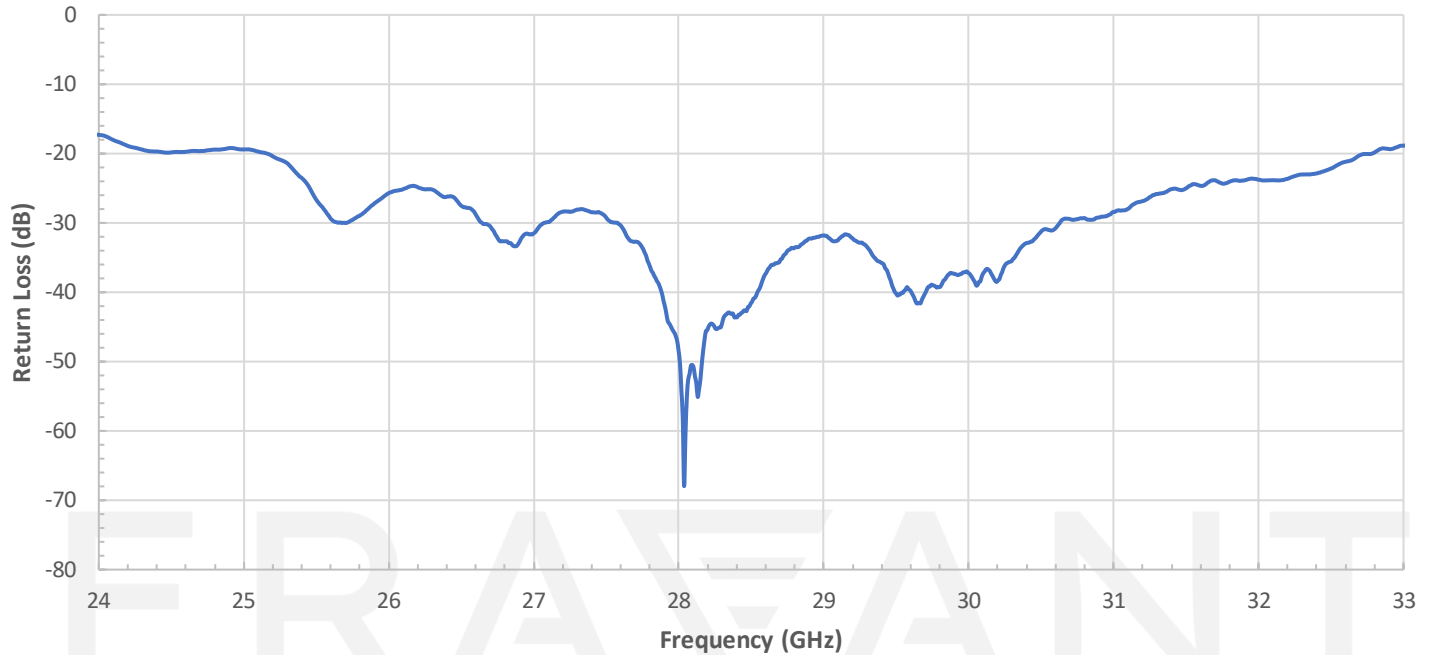
MAKING MILLIMETERWAVE ACCESSIBLE

Measured Gain vs Frequency

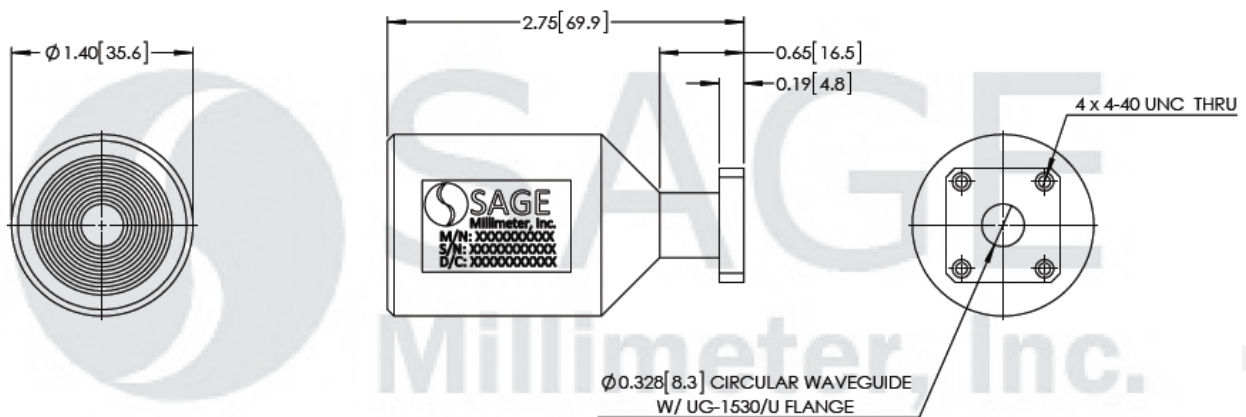


MAKING MILLIMETERWAVE ACCESSIBLE

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.