

SAF-3835331823-219-S1

Q Band Scalar Feed Horn Antenna, 18 dBi Gain

SAF-3835331823-219-S1 is a Q-band scalar feed horn antenna that operates from 37.5 to 52.4 GHz. The antenna offers a 18 dBi nominal gain, 23 degree typical half power beamwidth, and -25 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.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	37.5 GHz		52.4 GHz
Gain		18 dBi	
3 dB Beamwidth, E-plane		23°	
3 dB Beamwidth, H-plane		23°	
Side Lobes, E-plane		-25 dB	
Side Lobes, H-plane		-25 dB	
Return Loss		15 dB	
Polarization	Linear and Circular		
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

Item	Specification
Antenna Port	0.219" Diameter Circular Waveguide
Flange Type	UG-383/U Anti-Cocking Flange
Material	Aluminum
Finish	Clear chem film
Weight	2.8 Oz
Outline	AF-CQ20-219-A

ECCN

EAR99

FEATURES

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

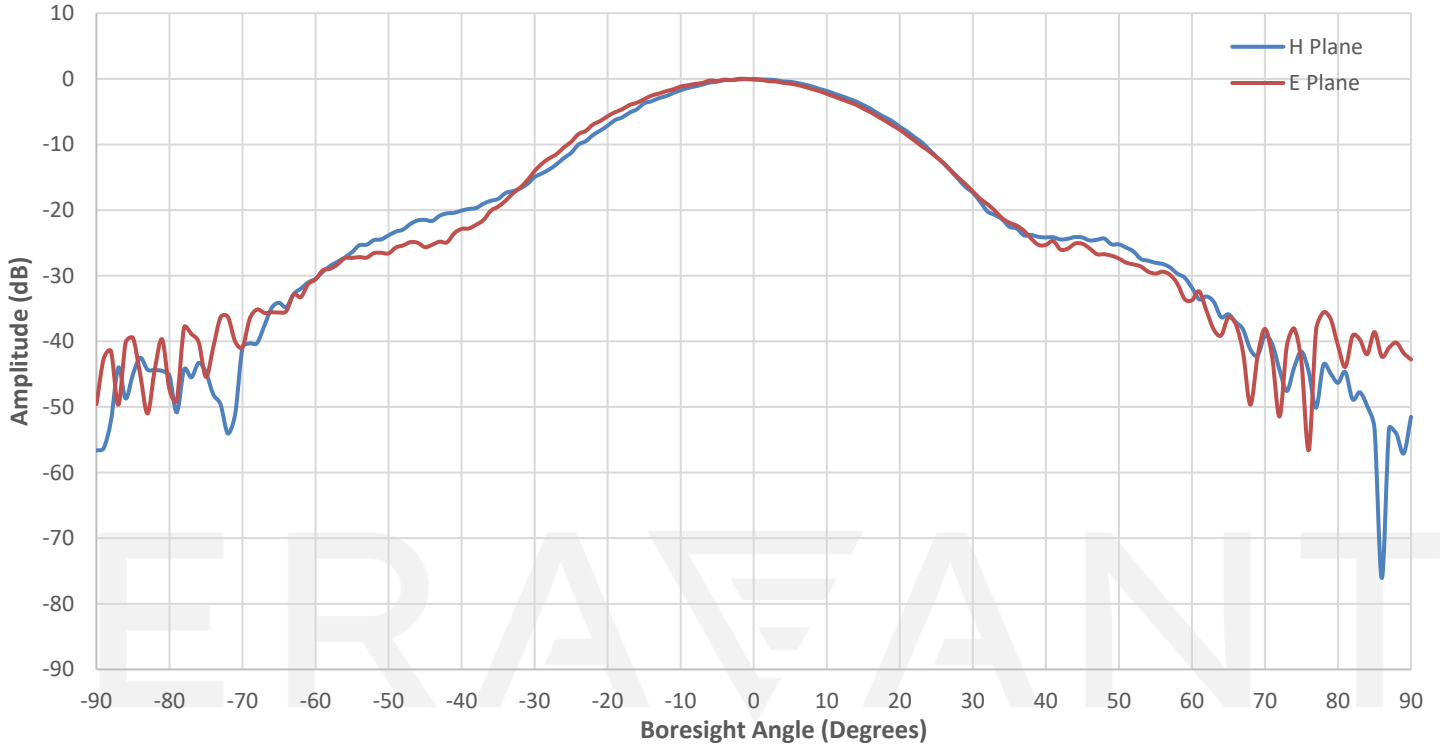
APPLICATIONS

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

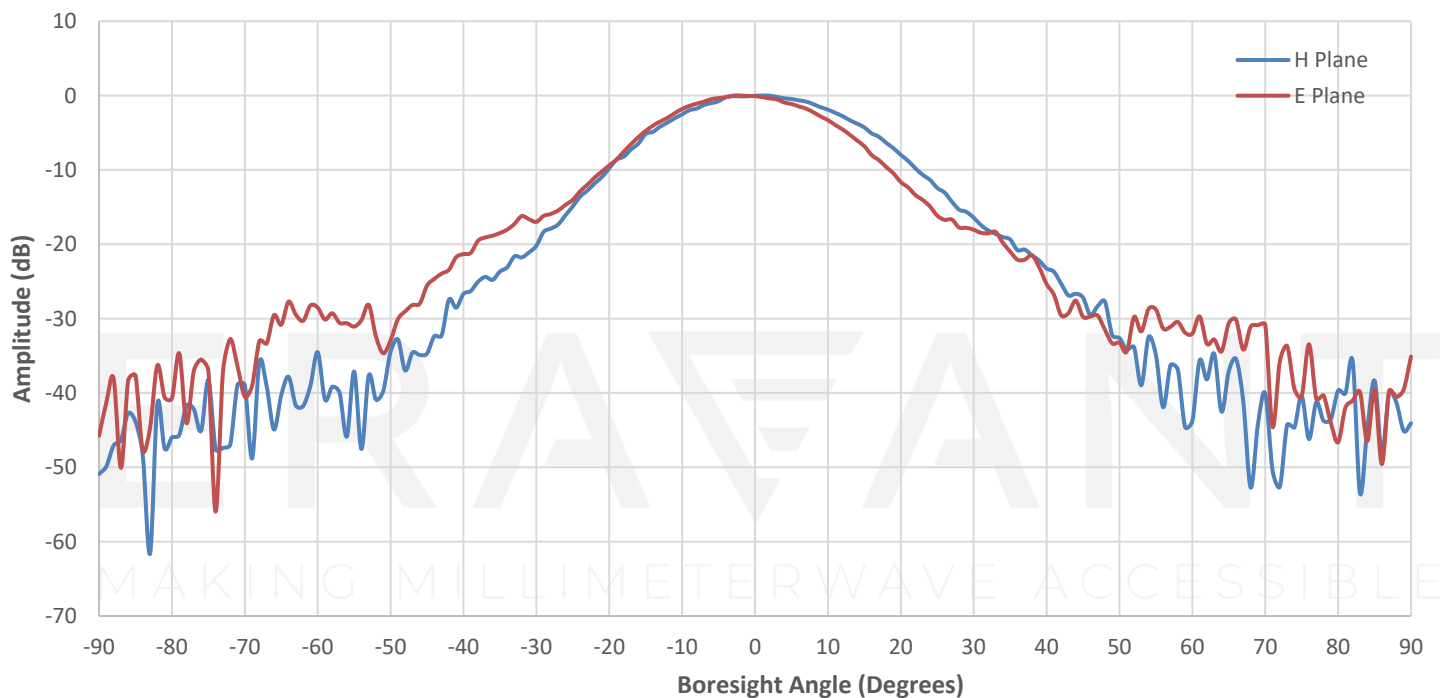
SUPPLEMENTAL DETAILS



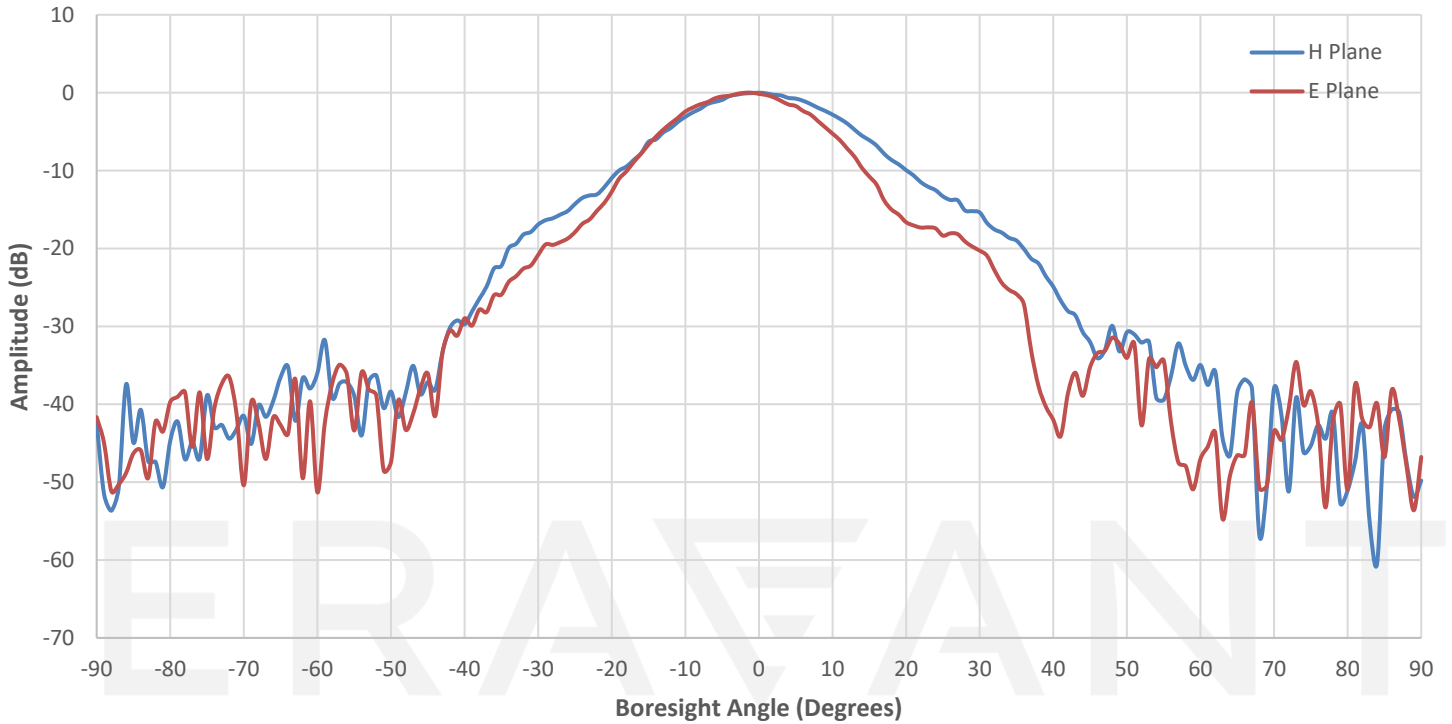
Measured Pattern at 37.5 GHz



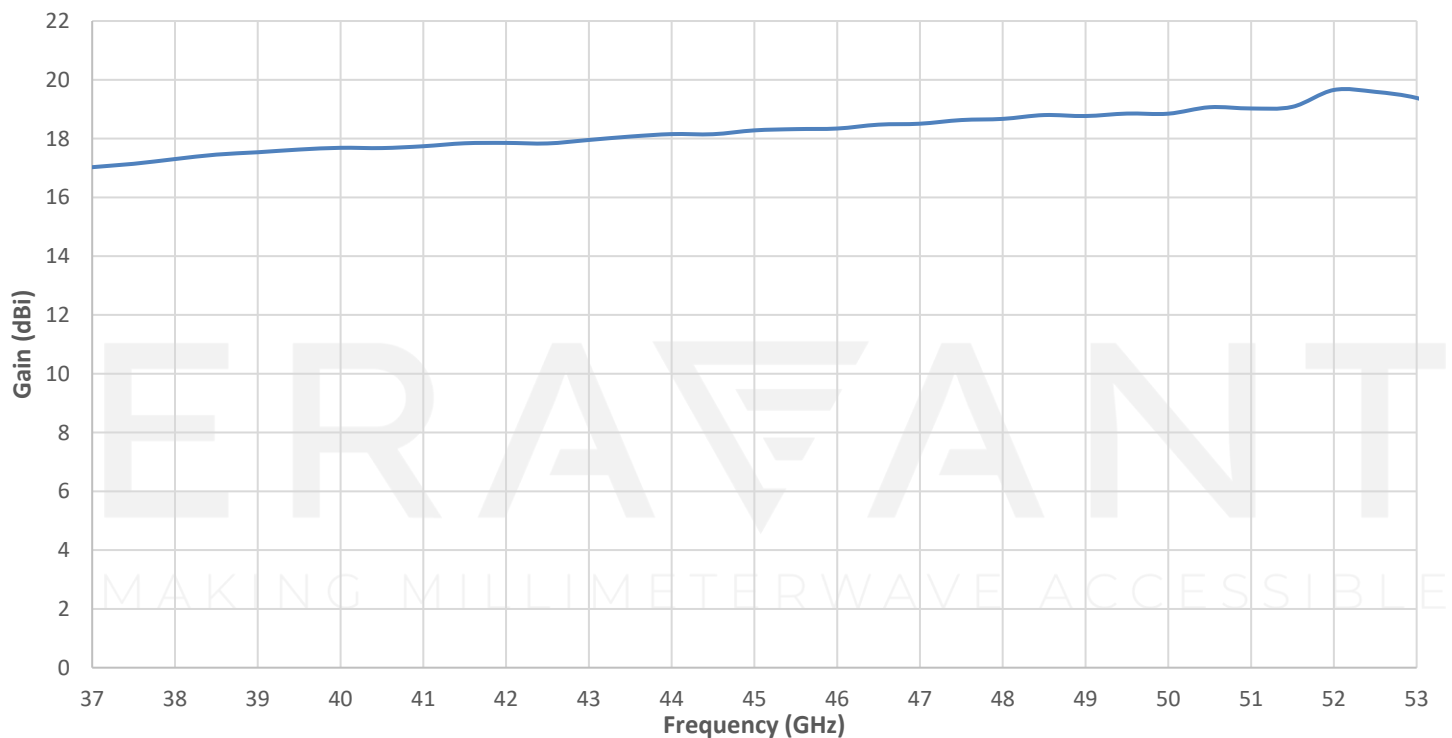
Measured Pattern at 45 GHz



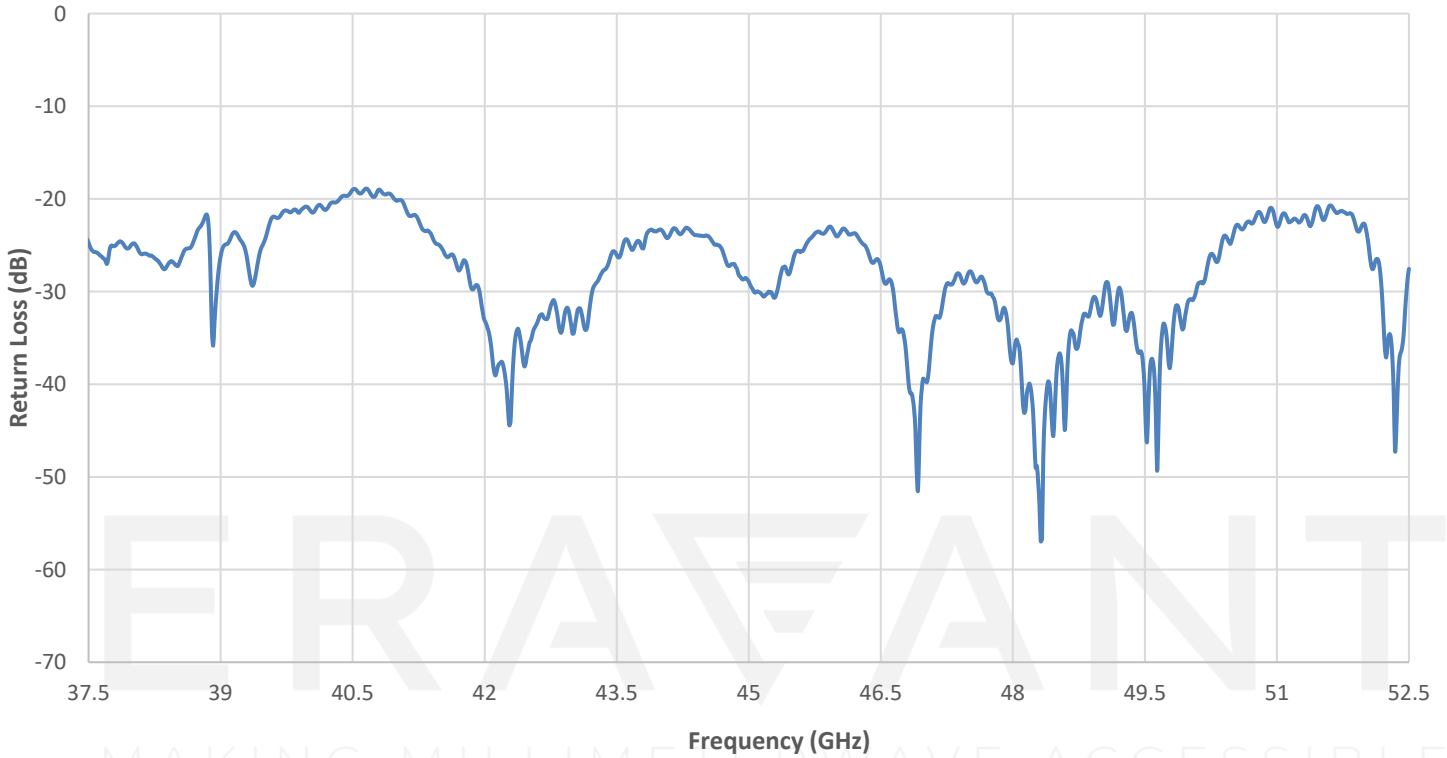
Measured Pattern at 52.5 GHz



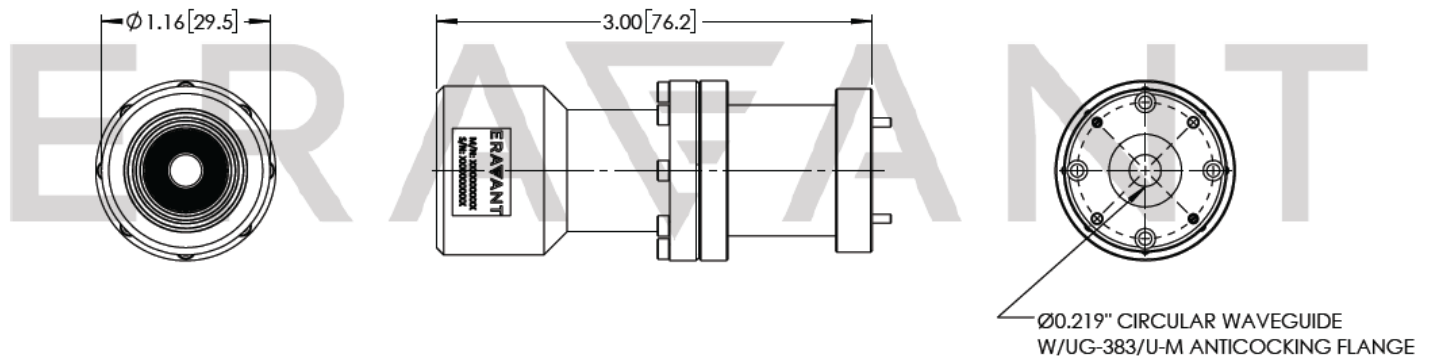
Typical Gain vs Frequency



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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