

SAA-1530-03-S2

0.034" x 0.034" Diagonal Horn Antenna, 15 dBi Gain

SAA-1530-03-S2 is a J-band diagonal horn antenna that operates from 220 GHz to 330 GHz. The antenna offers 15 dBi nominal gain and a typical half power beamwidth of 30 degrees on both E-plane and H-plane, respectively. The antenna supports linear polarized waveforms. The input of this antenna is a 0.034" x 0.034" Square waveguide with UG-387/U-M anti-cocking flange.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	220 GHz		330 GHz
Gain		15 dBi	
3 dB Beamwidth, E-Plane		30°	
3 dB Beamwidth, H-Plane		30°	
Polarization		Linear	
Sidelobes, E-Plane		-12 dB	
Sidelobes, H-Plane		-12 dB	
Return Loss		23 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	0.034" x 0.034" Square waveguide
Flange	UG-387/U-M Anti-Cocking Flange
Material	Aluminum
Finish	Gold Plated
Outline	AA-034-034-A

ECCN

EAR99

FEATURES

- Square Waveguide Interface
- Precisely Machined and Gold Plated
- Linear Polarization
- High Return Loss

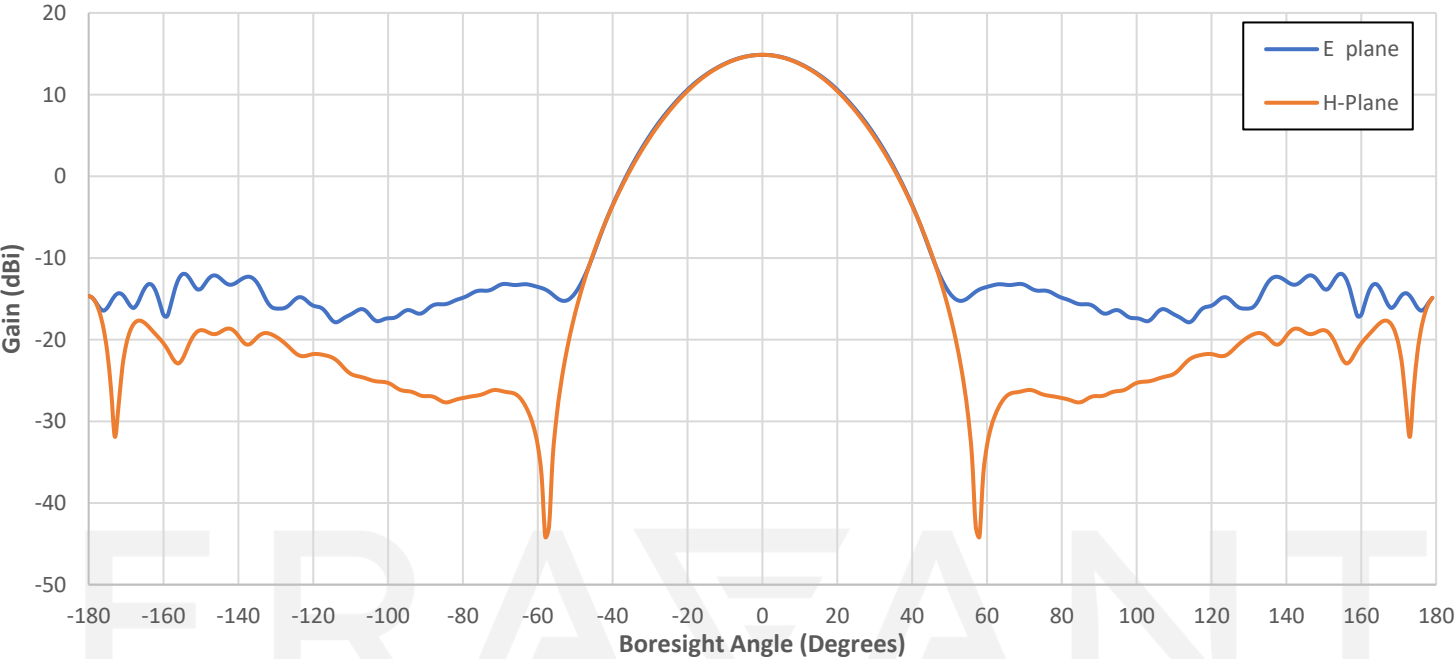
APPLICATIONS

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

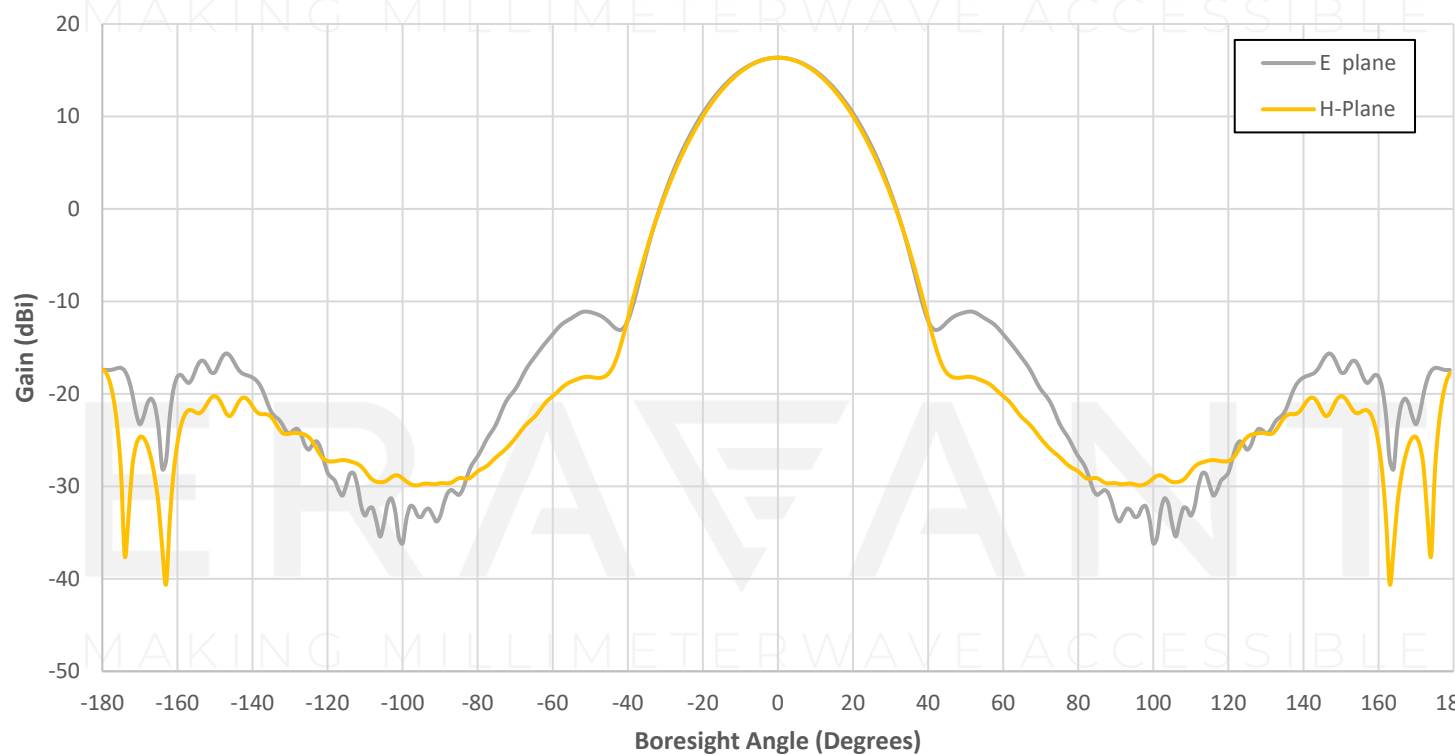
SUPPLEMENTAL DETAILS



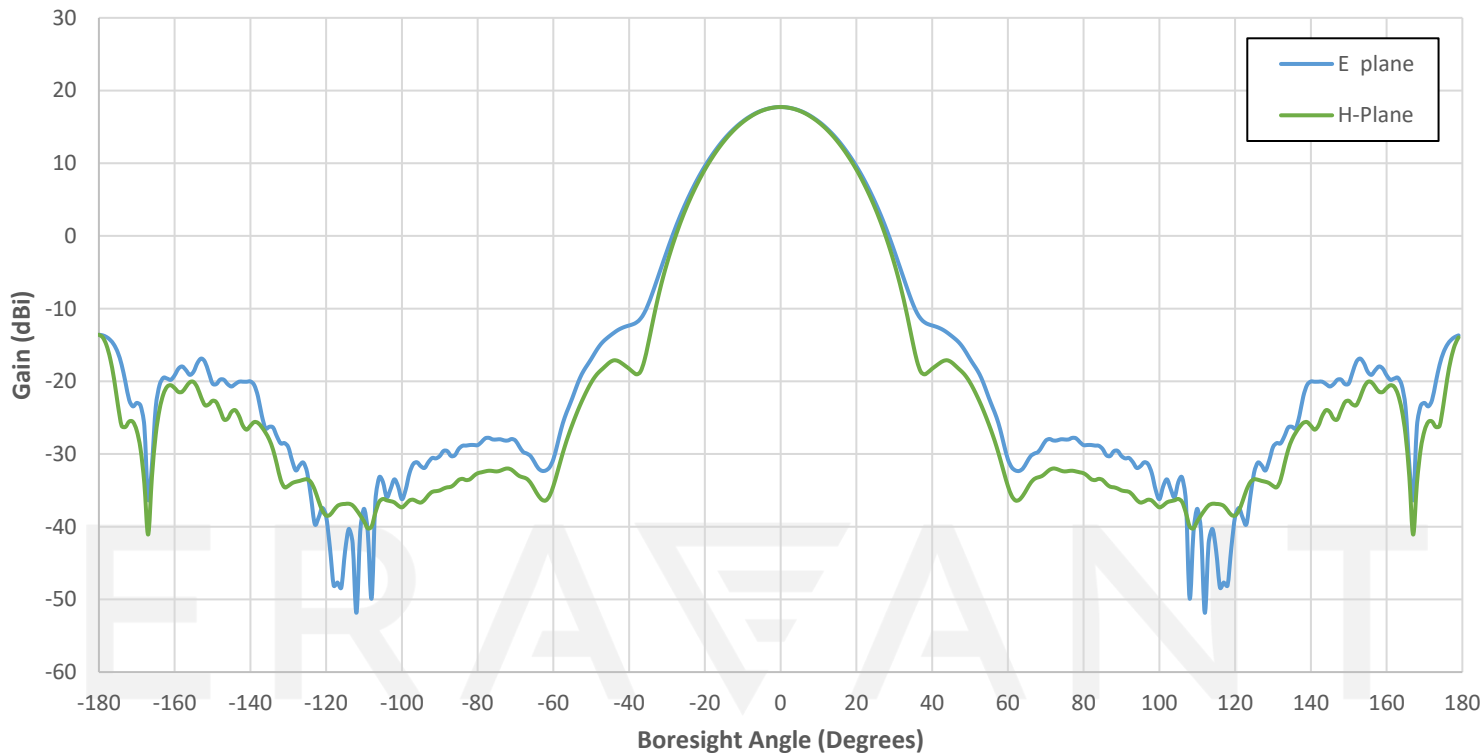
Simulated pattern at 220 GHz



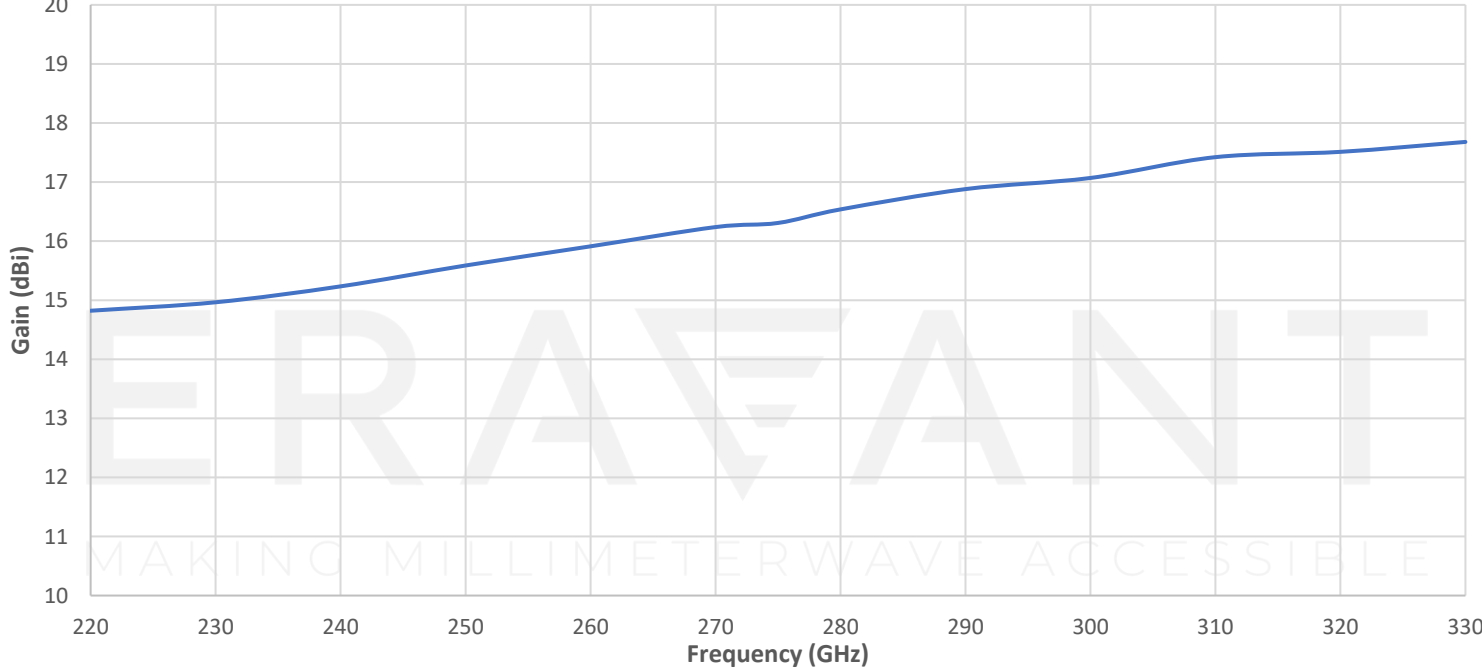
Simulated pattern at 275 GHz



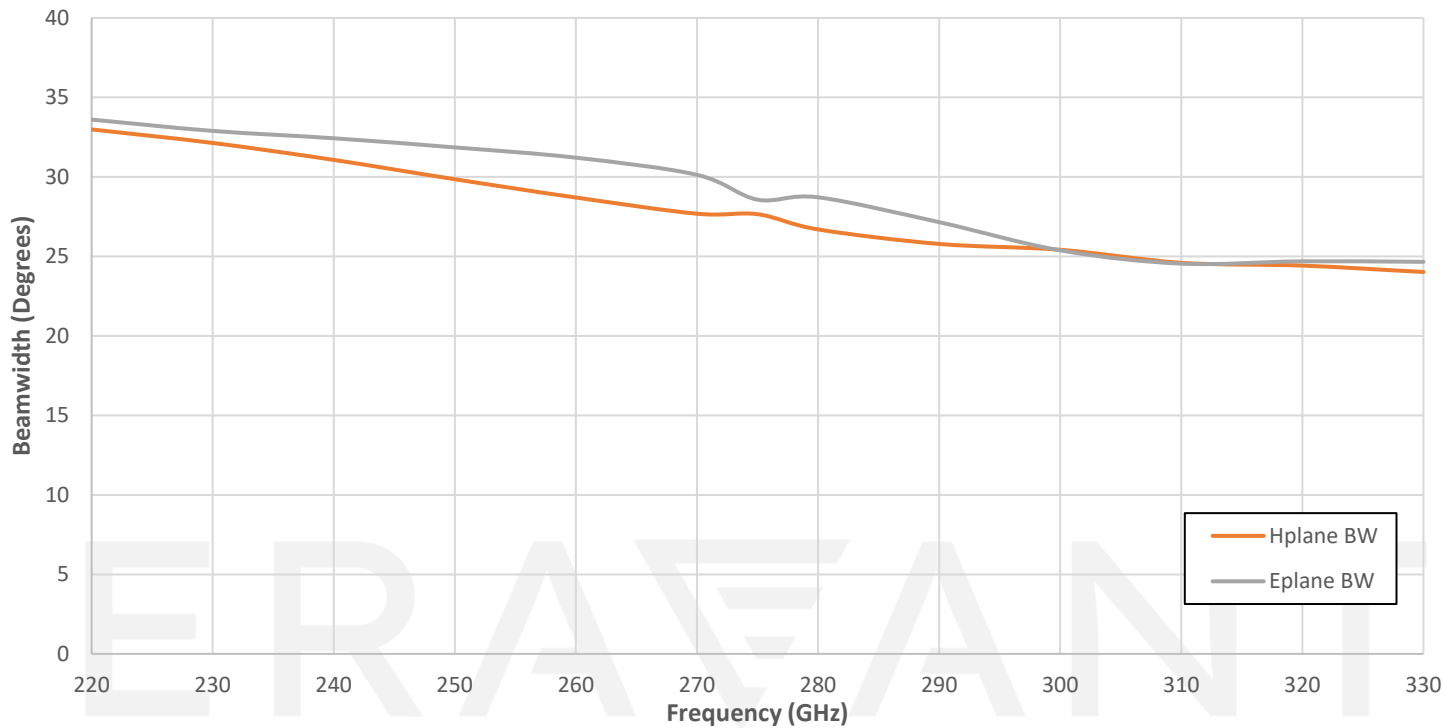
Simulated pattern at 330 GHz



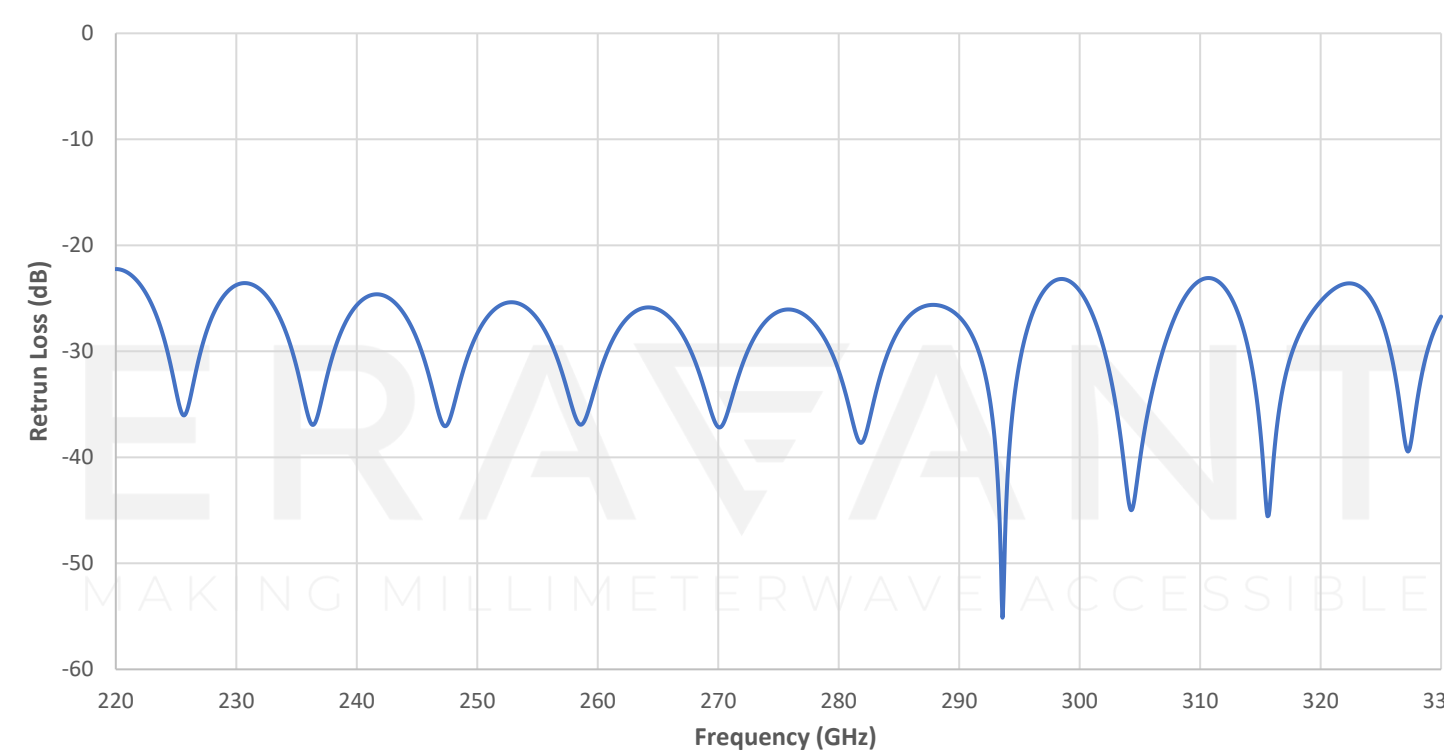
Simulated Gain vs Frequency



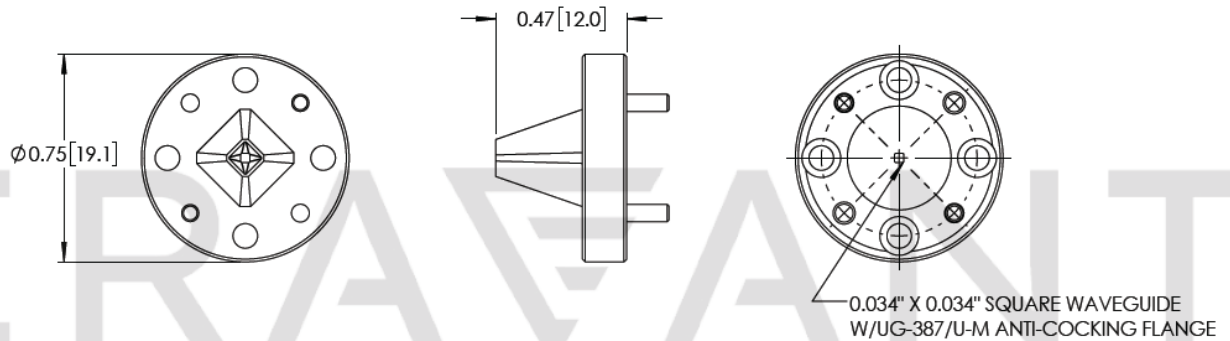
Simulated Beamwidth vs Frequency



Simulated Return Loss vs Frequency



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



NOTE:

- All data presented is simulated. Actual data may vary slightly.
- This antenna is a mature product. The reason for only providing simulated data can be found in the following blog [here](#).
- Photo on datasheet is not final and does not represent the final product.
- 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.