SAA-2019-22-S2

WR-22 Diagonal Horn Antenna, 20 dBi Gain

SAA-2019-22-S2 is a Q-band diagonal horn antenna that operates from 33 GHz to 50 GHz. The antenna offers 20 dBi nominal gain and a typical half power beamwidth of 19 degrees on both E-plane and H-plane, respectively. The antenna supports linear polarized waveforms. The input of this antenna is a WR-22 waveguide with UG-383/U anti-cocking flange.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	33 GHz		50 GHz
Gain		20 dBi	
3 dB Beamwidth, E-Plane		19°	
3 dB Beamwidth, H-Plane		19°	
Polarization		Linear	
Sidelobes, E-Plane		-17 dB	
Sidelobes, H-Plane		-10 dB	
Return Loss		23 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-22 Waveguide with UG-383/U Anti-Cocking Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.3 Oz
Outline	AA-Q1-A

ECCN

EAR99

FEATURES

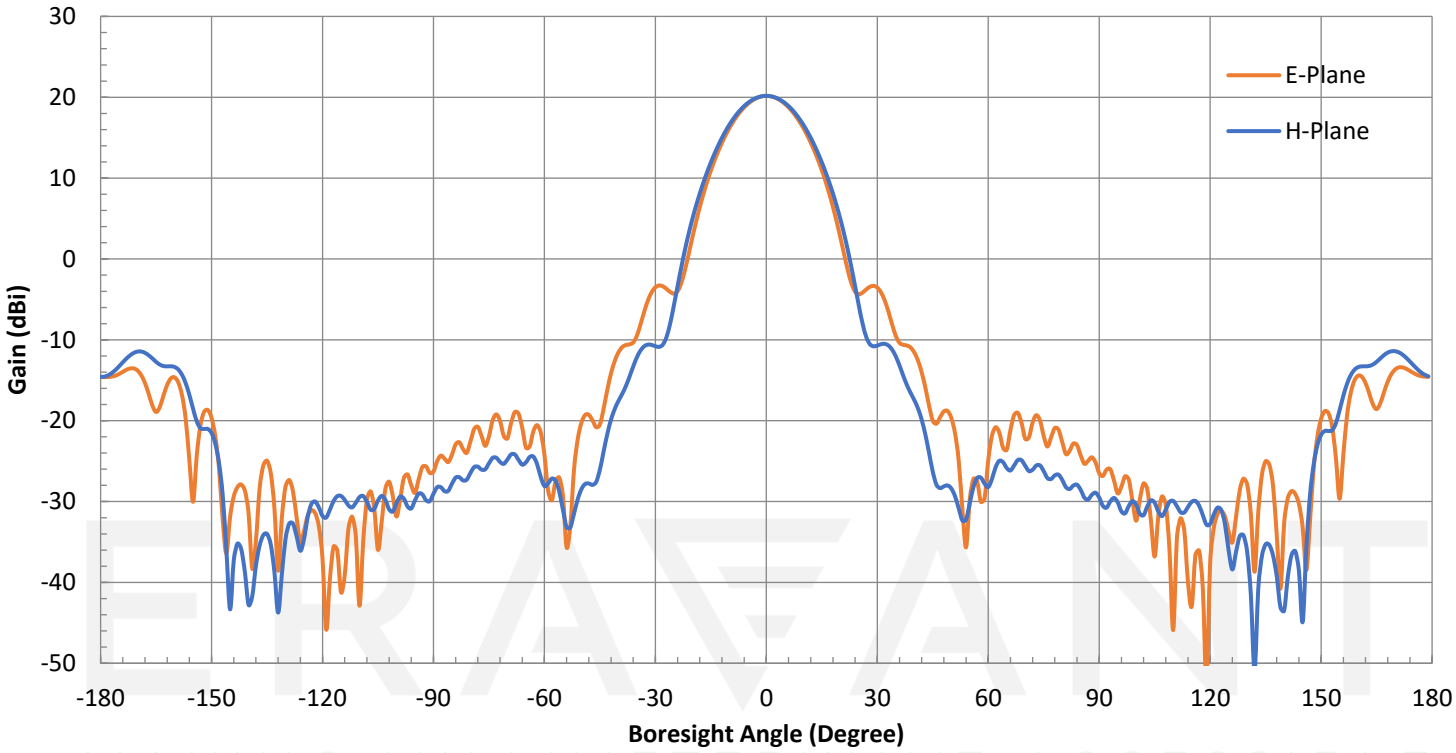
- Rectangular Waveguide Interface
- Precisely Machined and Gold Plated
- Linear Polarization
- High Return Loss

APPLICATIONS

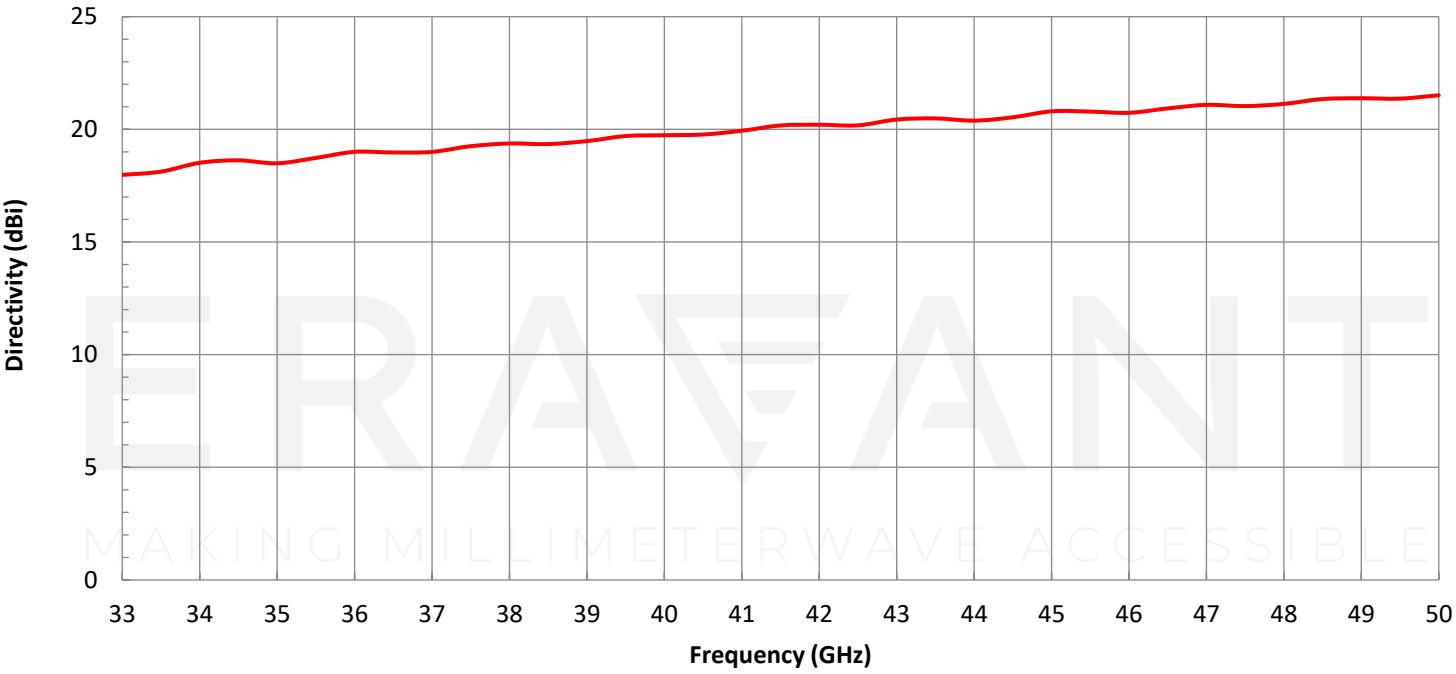
- Antenna Ranges
- Antenna Gain Measurements
- System Setups

SUPPLEMENTAL DETAILS

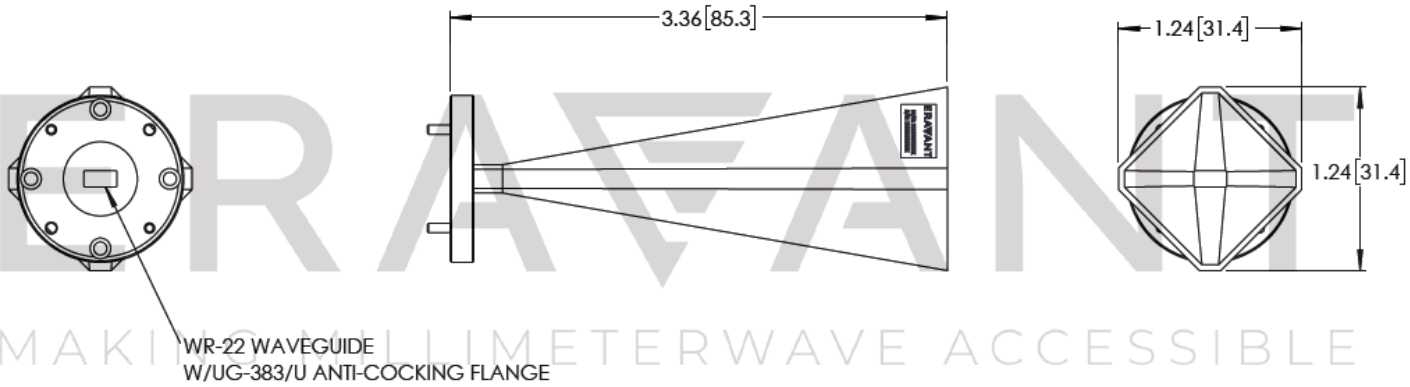
Simulated Antenna Pattern @ 41.5 GHz



Simulated Directivity 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.