



WR-22 Probe Antenna

Description:

Model SAP-22-R2 is a Q-band probe antenna that operates from 33 GHz to 50 GHz. The antenna offers 6.5 dBi nominal gain and 115 degrees typical half power beamwidth on the E-plane and 60 degrees typical half power beamwidth on the H-plane. The antenna supports linear polarized waveforms. The input of this antenna is a WR-22 waveguide with UG-383/U flange.



Features:

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

Applications:

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	33 GHz		50 GHz
Gain		6.5 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		115°	
3 dB Beamwidth, H-Plane		60°	
Side Lobes, E-Plane		-10 dB	
Side Lobes, H-Plane		-14 dB	
Return Loss		9 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

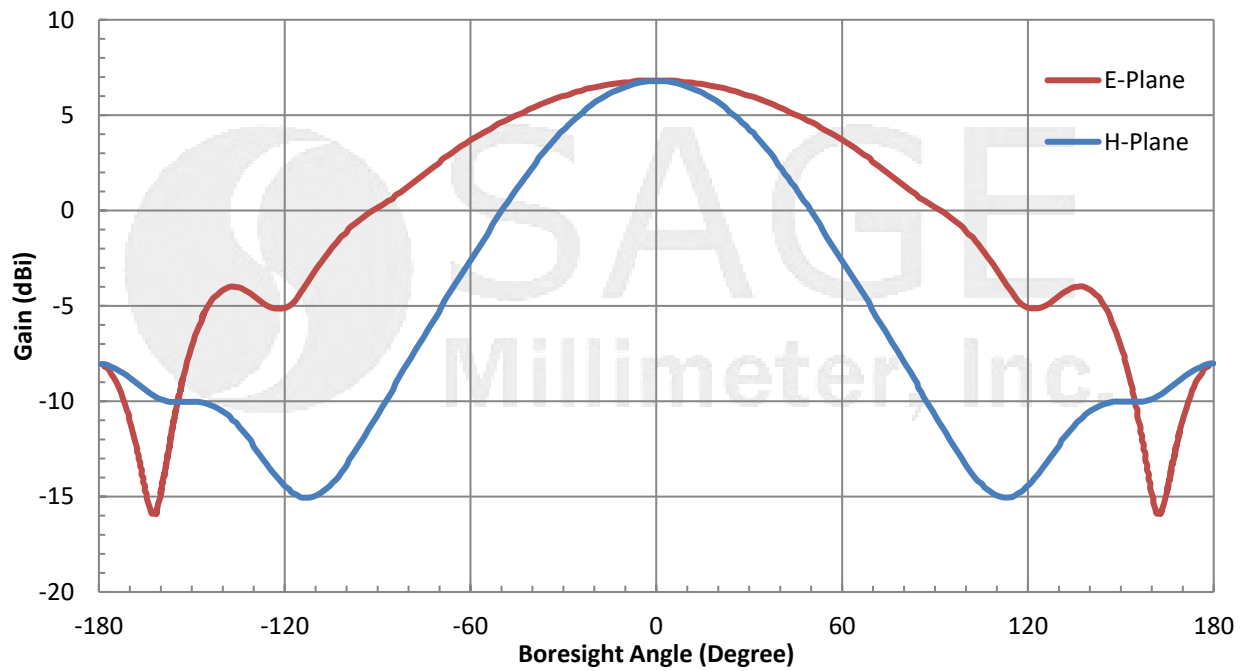
Item	Specification
Antenna Port	WR-22 Waveguide
Flange Type	UG-383/U Flange
Size	2.200" (L) x 1.125 (Ø)
Material	Brass
Finish	Gold Plated
Weight	1.2 Oz
Outline	AP-RQ



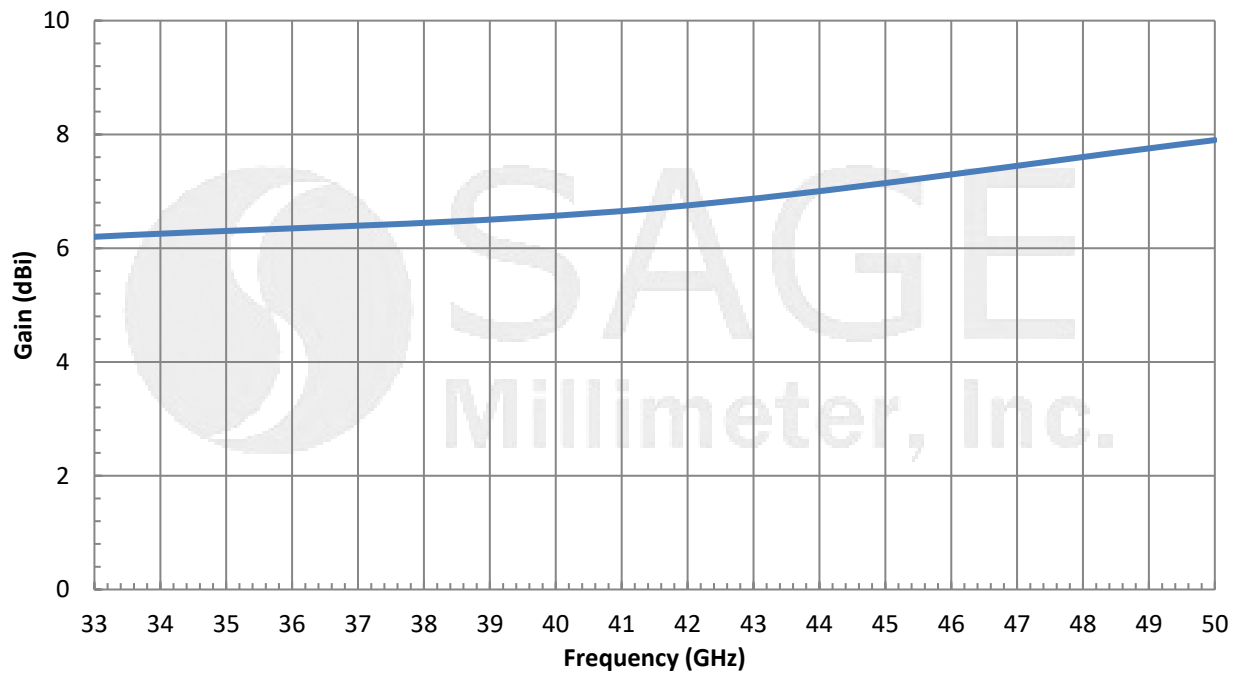


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Typical Antenna Pattern @ 41.5 GHz



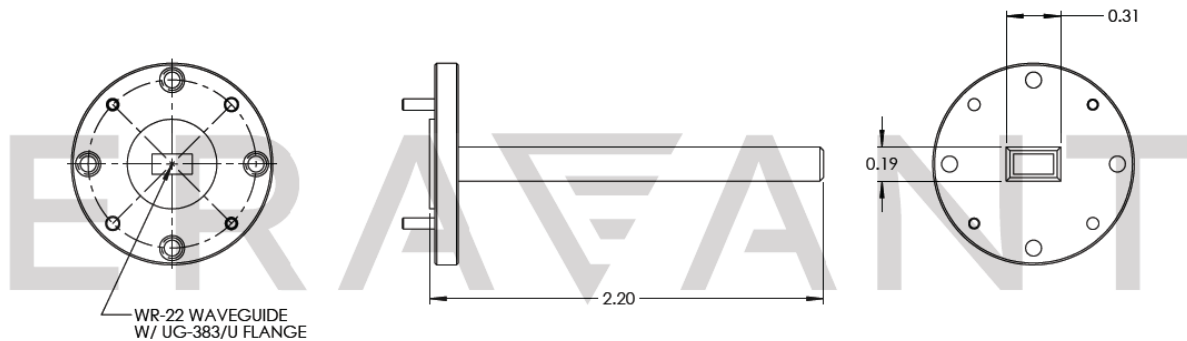
Typical Gain vs. Frequency





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



Note:

- This antenna is a mature product. The reasons for only providing simulated data can be found in the following blog [here](#).
- Eravant reserves the right to change the information presented without notice.

Caution:

- Any foreign objects in the waveguide will cause performance degradation and possible device damage.

