



## WR-62, Ku-Band Probe Antenna, Square Waveguide

### Description:

**Model SAP-622-S2-7.09** is a square waveguide probe antenna that operates from 12.4 to 18.0 GHz. The antenna offers 9.0 dBi nominal gain, 67 degrees typical half power beamwidth on the E-plane and 65 degrees on the H-plane, respectively. The antenna supports linear and circular polarized waveforms. The input port of this antenna is a 0.622" x 0.622" square waveguide with UG-419/U flange.



### Features:

- Square Waveguide Interface
- Precisely Machined and Gold Plated
- Linear and Circular Polarization

### Applications:

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	12.4 GHz		18.0 GHz
Gain		9.0 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		67°	
3 dB Beamwidth, H-Plane		65°	
Sidelobes, E-Plane		-12 dB	
Sidelobes, H-Plane		-20 dB	
Return Loss		10 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

### Mechanical Specifications:

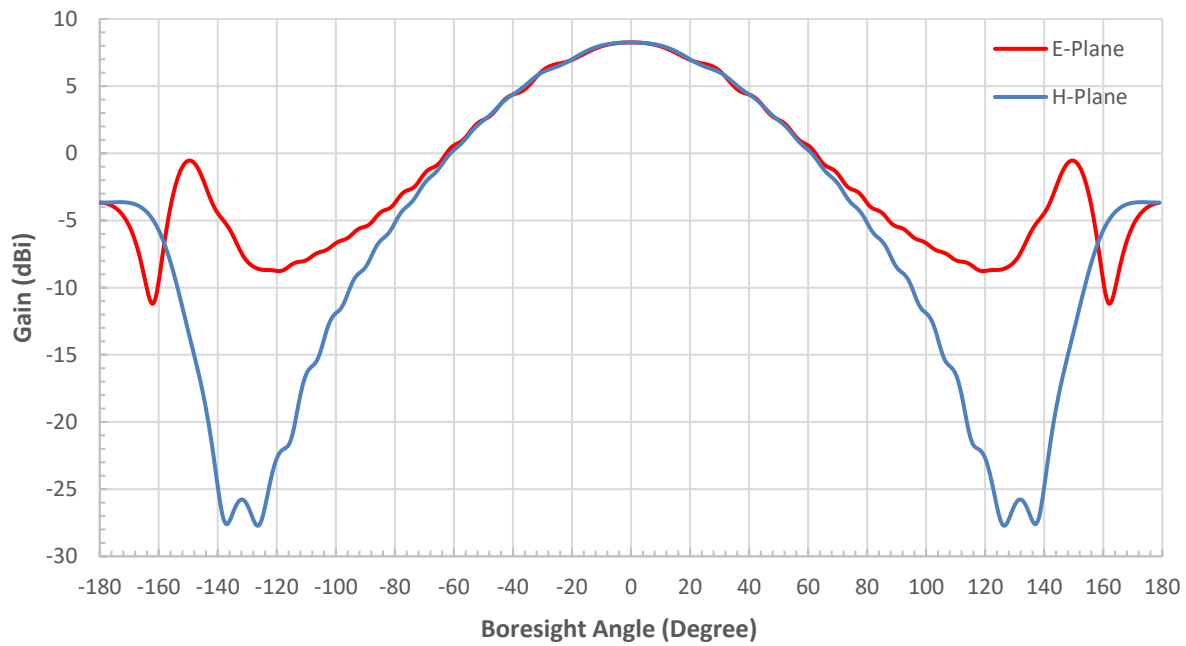
Item	Specification
Antenna Port	0.622" x 0.622" Square Waveguide
Flange Type	UG-419/U Flange
Material	Brass
Finish	Gold Plated
Weight	6.0 Oz
Size	7.09" (L) x 1.31" (W) x 1.31" (H)
Outline	AP-S6-622-7.09



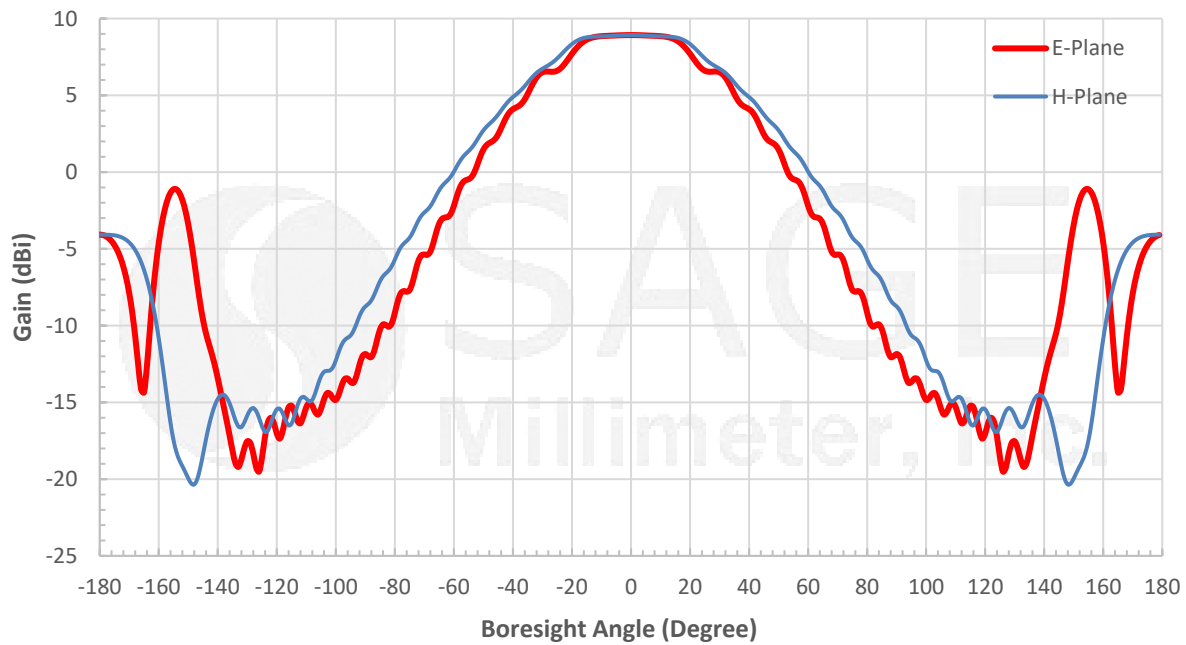


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### Simulated Antenna Pattern @ 12.4 GHz



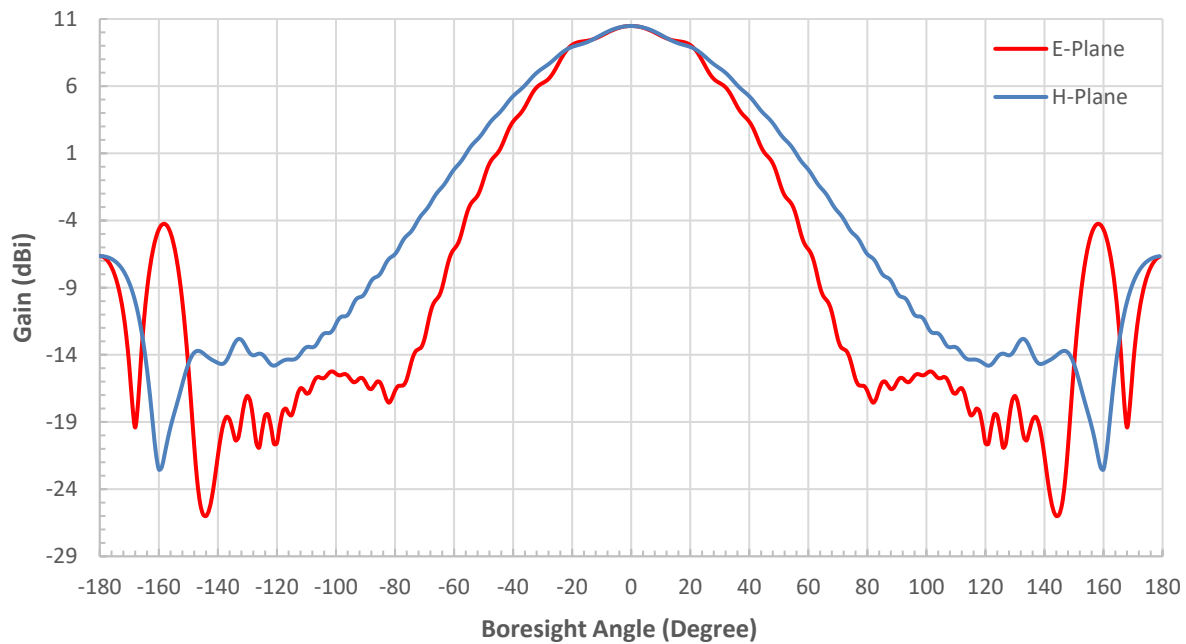
### Simulated Antenna Pattern @ 15.2 GHz



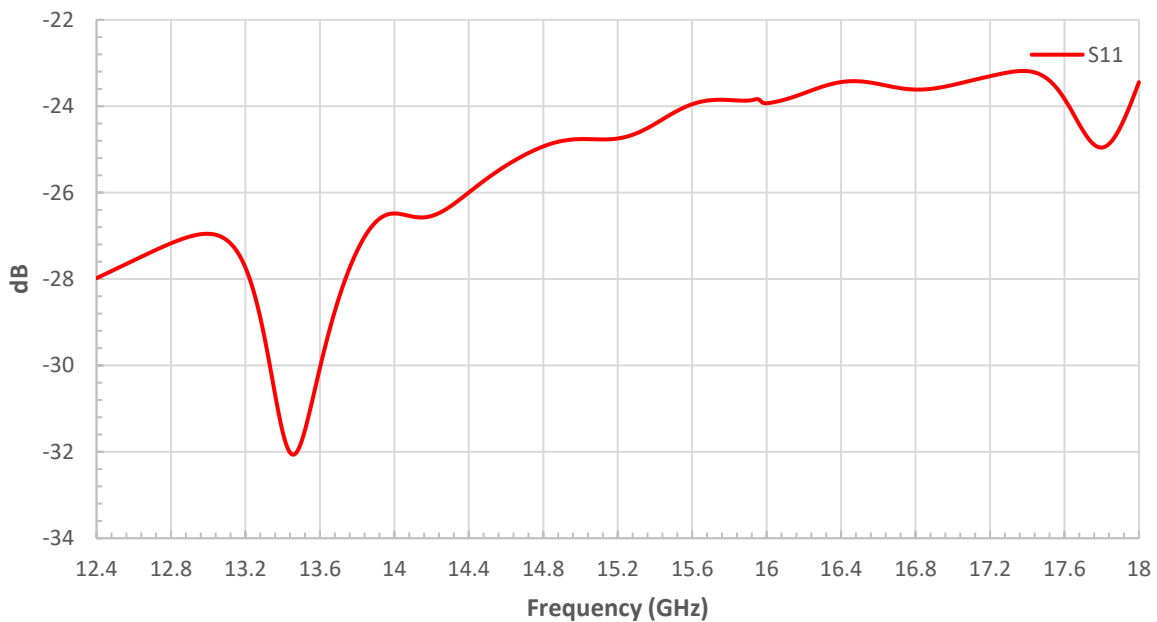


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### Simulated Antenna Pattern @ 18 GHz



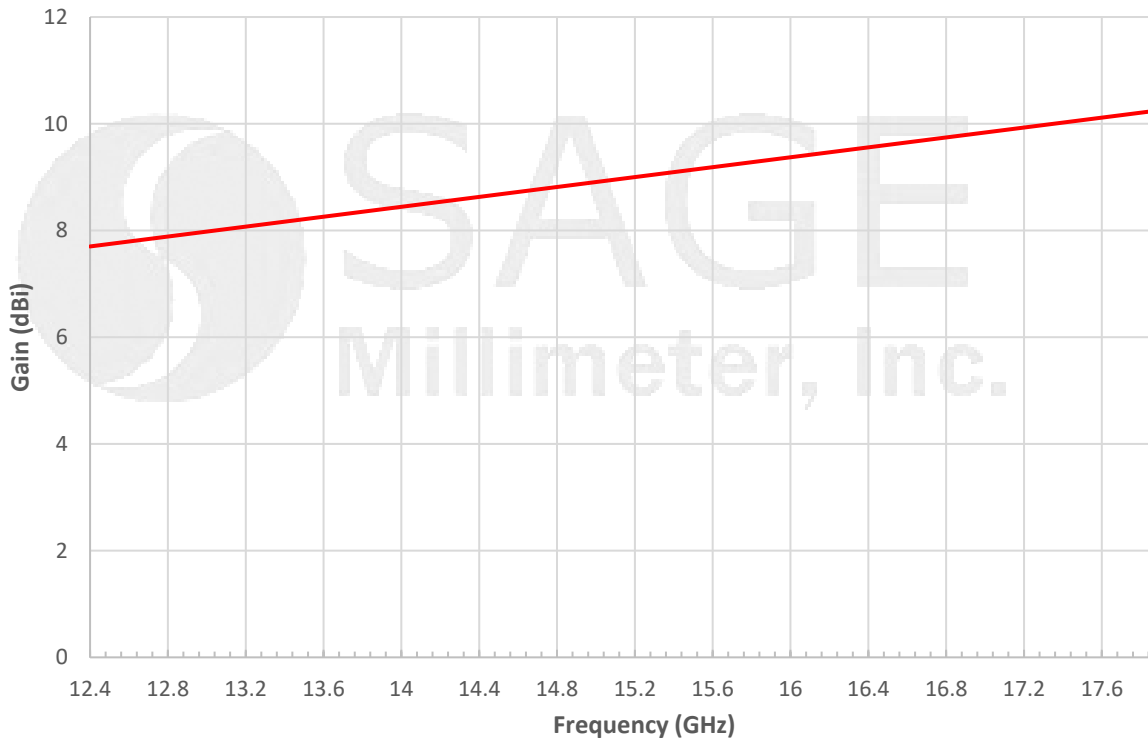
### Simulated Return Loss vs. Frequency



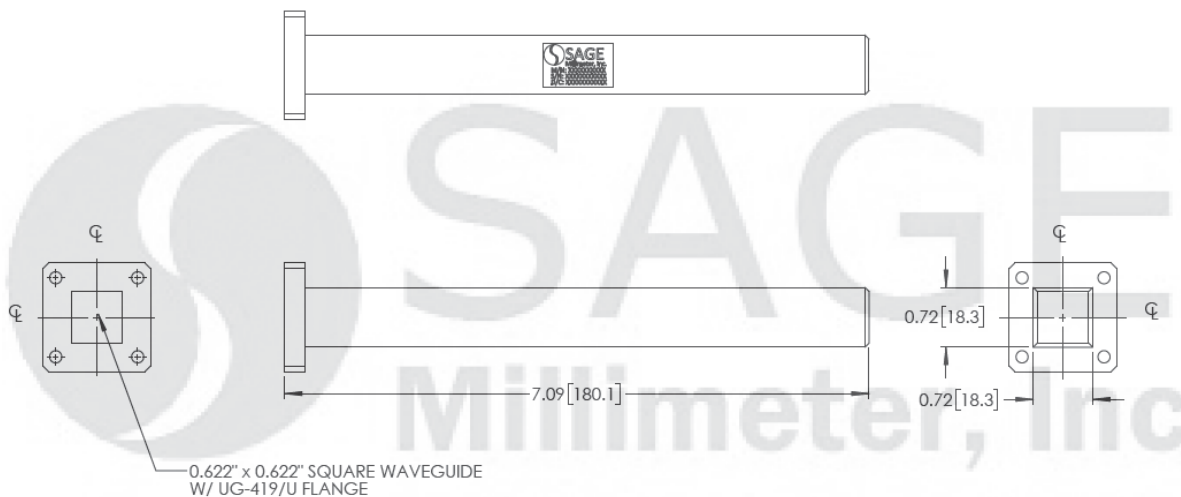


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### Simulated Gain vs. Frequency



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





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### Note:

- This antenna is a mature product. The reasons for only providing simulated data can be found in the following blog [here](#).
- All testing was 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.

