

WR-42 Probe Antenna

Description:

Model SAP-42-R2 is a WR-42 probe antenna that operates from 18 GHz to 26.5 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-42 waveguide with UG-595/U flange.



Features:

- Rectangular Waveguide Interface
- Precisely Machined
- Linear Polarization
- High Return Loss

Applications:

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	18 GHz		26.5 GHz
Gain		6.5 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		115°	
3 dB Beamwidth, H-Plane		60°	
Sidelobes, E-Plane		-10 dB	
Sidelobes, H-Plane		-14 dB	
Return Loss		10 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

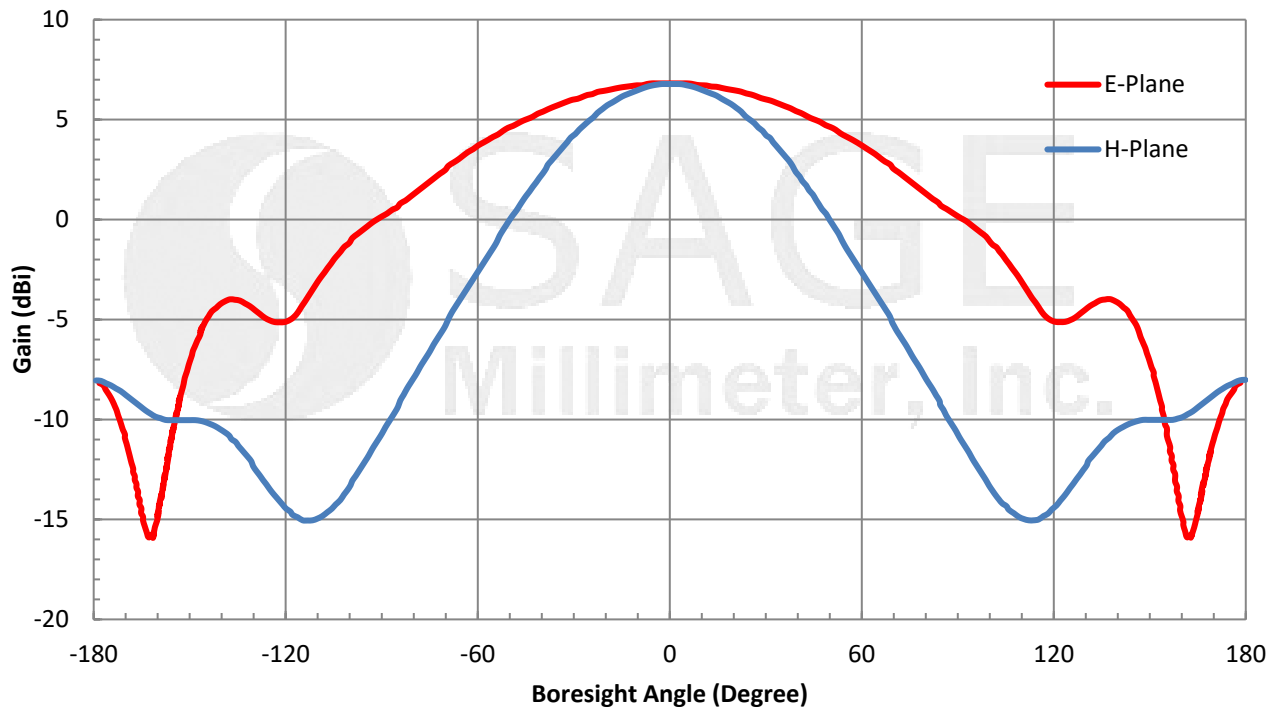
Item	Specification
Antenna Port	WR-42 Waveguide
Flange Type	UG-595/U Flange
Material	Aluminum
Finish	Inner: Silver Plated, Outer: Black Paint
Weight	1 Oz
Size	4.20" (L) x 0.88" (W) x 0.88" (H)
Outline	AP-RK



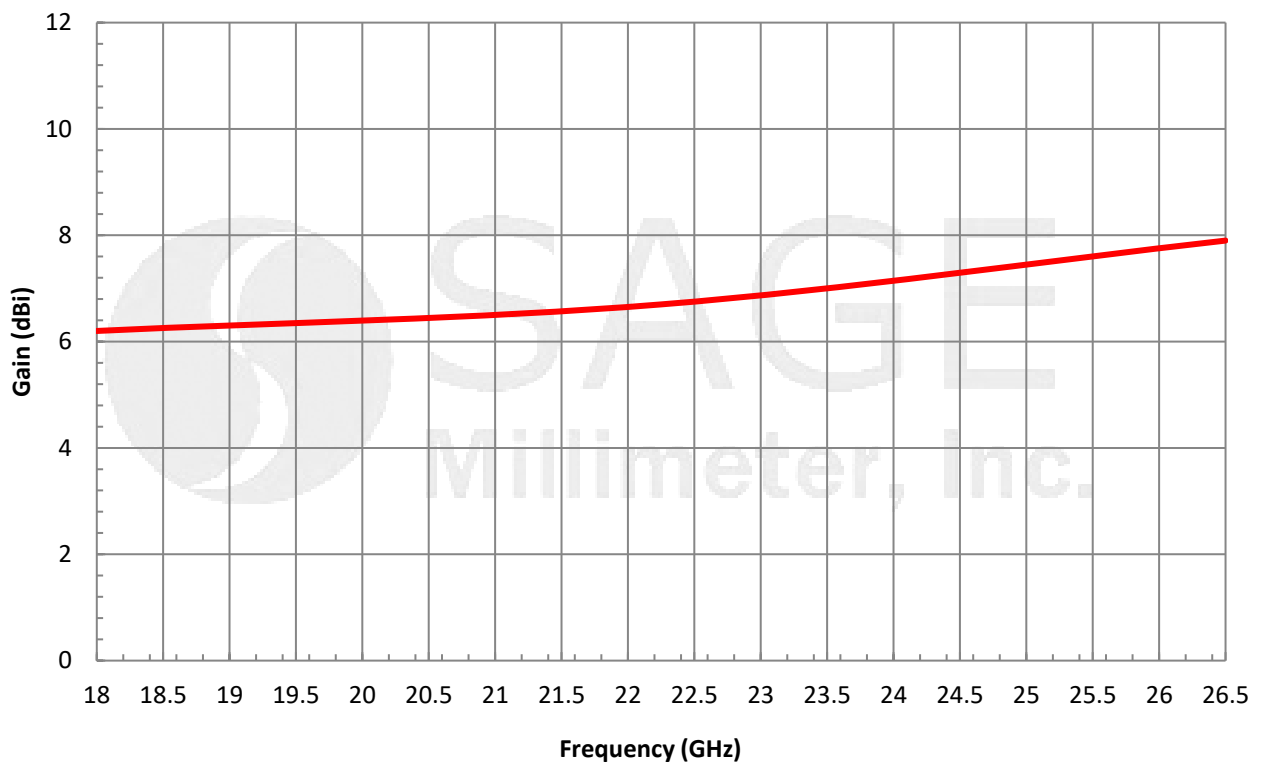


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Typical Antenna Pattern @ 22.25 GHz

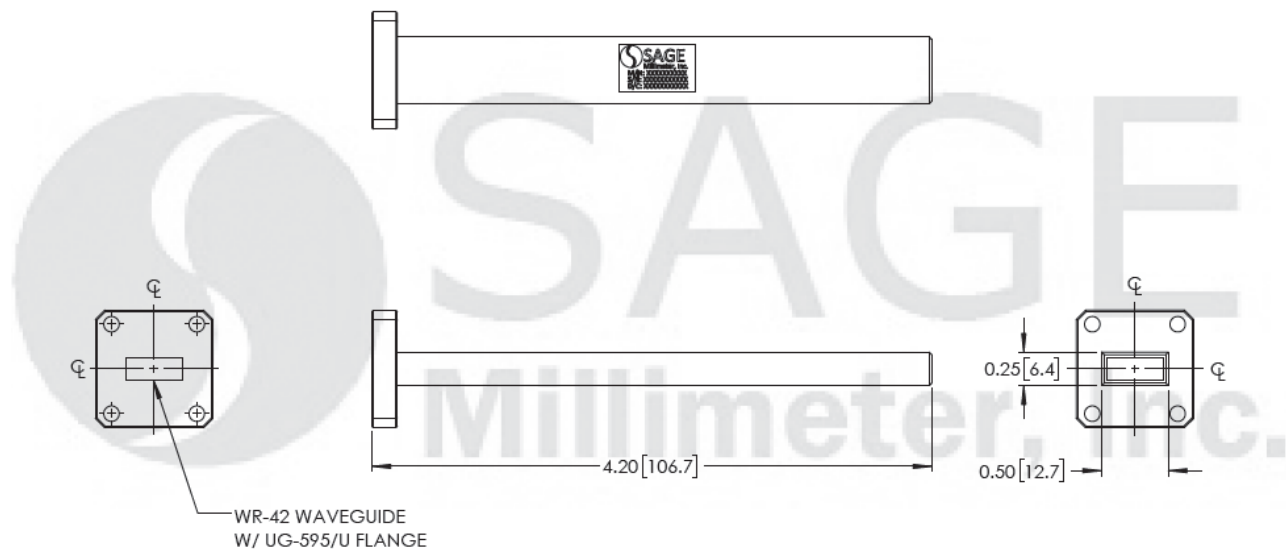


Typical Gain vs. Frequency



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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 antenna will cause performance degradation and possible device damage.

