

WR-10 Pyramidal Horn Antenna, 17 dBi Gain

Description:

Model SAR-1725-10-S2 is a W-band pyramidal horn antenna that operates from 75 GHz to 110 GHz. The antenna offers a nominal 17 dBi gain and a typical half power beamwidth of 24 degrees on the E-plane and 25 degrees on the H-plane. The antenna supports linear polarized waveforms. The input of this antenna is a WR-10 waveguide with UG-387/U-M anti-cocking 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	75 GHz		110 GHz
Gain		17 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		24°	
3 dB Beamwidth, H-Plane		25°	
Sidelobes, E-Plane		-13 dB	
Sidelobes, H-Plane		-20 dB	
Return Loss		20 dB	
Specification Temperature		+25 °C	
Operation Temperature	-40 °C		+85 °C

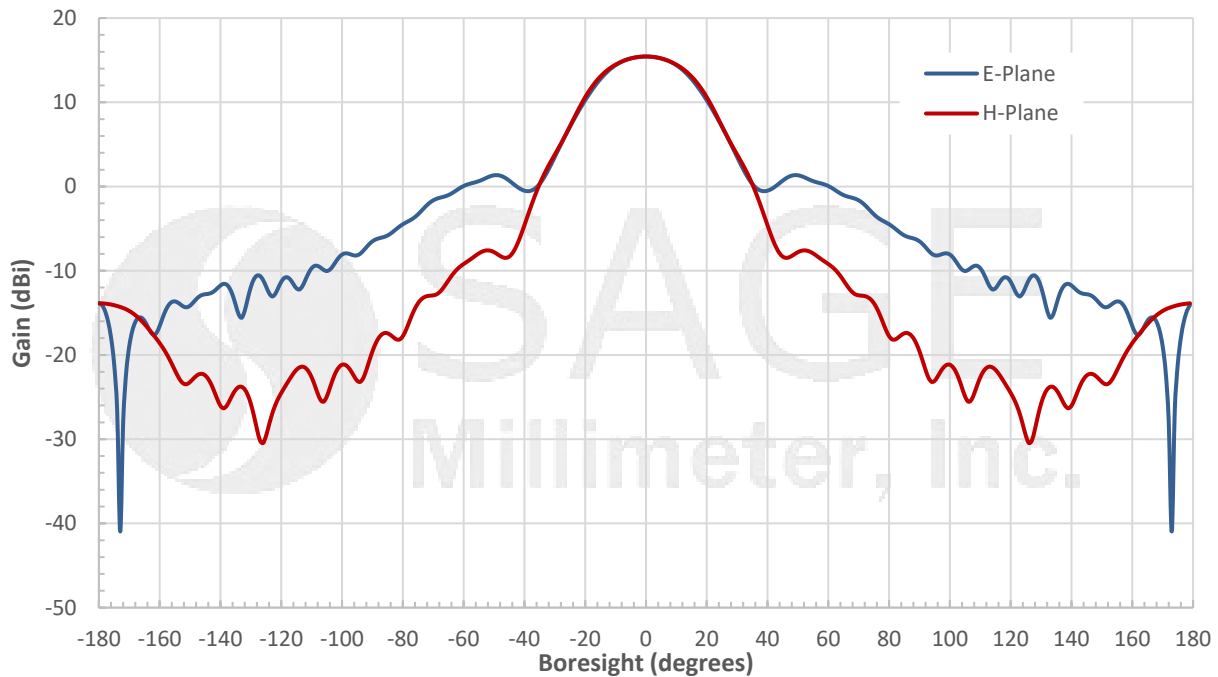
Mechanical Specifications:

Item	Specification
Antenna Port	WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange
Size	0.86" (L) X 0.40" (W) X 0.33" (H)
Material	Brass
Finish	Gold Plated
Weight	0.5 Oz
Outline	AR-W17-A

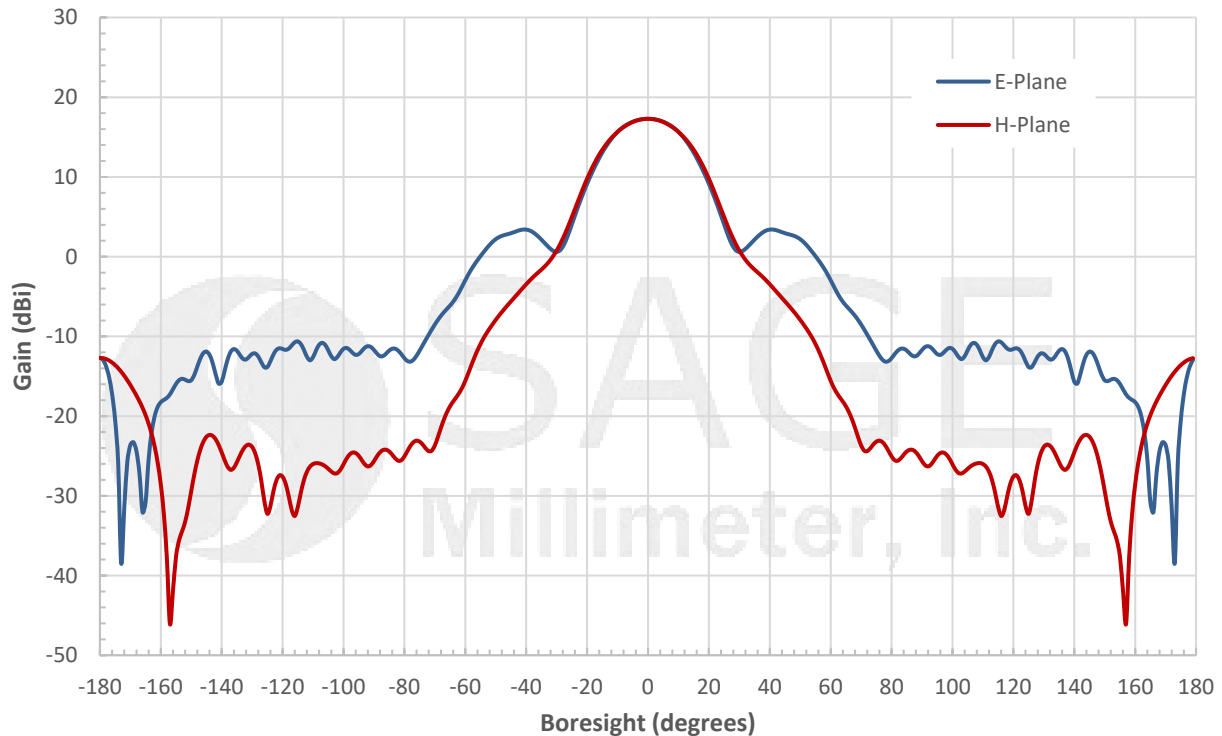


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Simulated Antenna Patterns @ 75 GHz



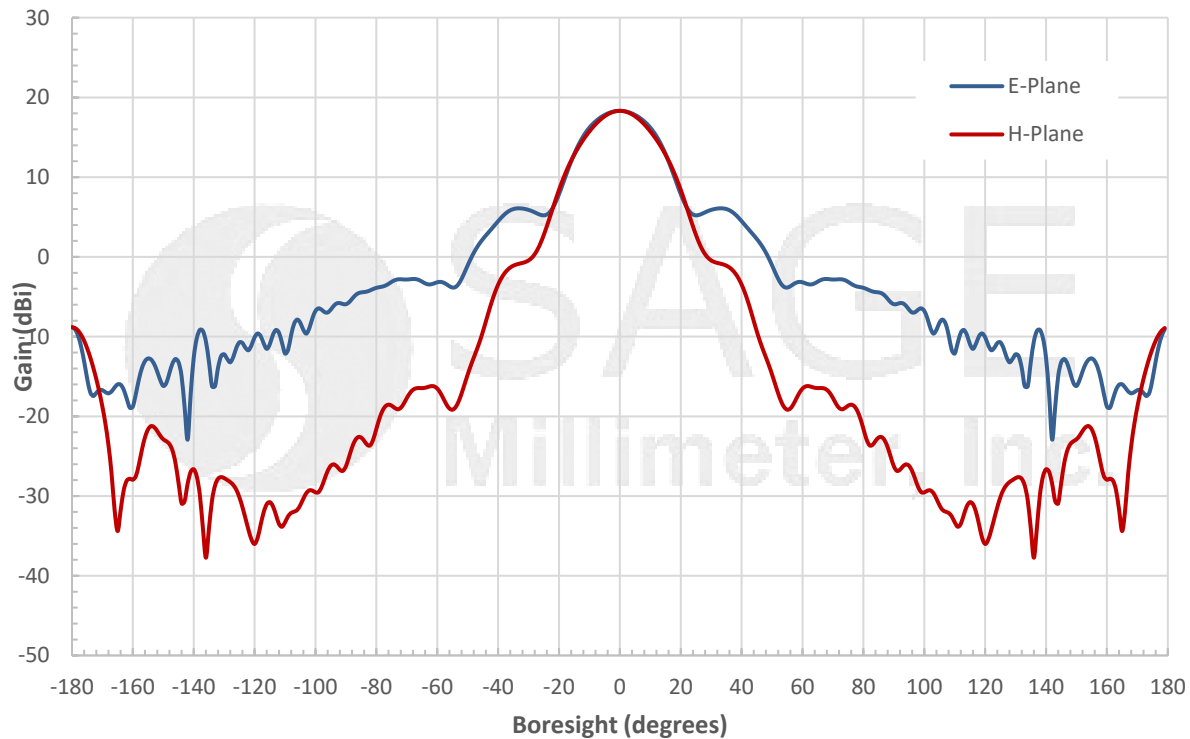
Simulated Antenna Patterns @ 92.5 GHz



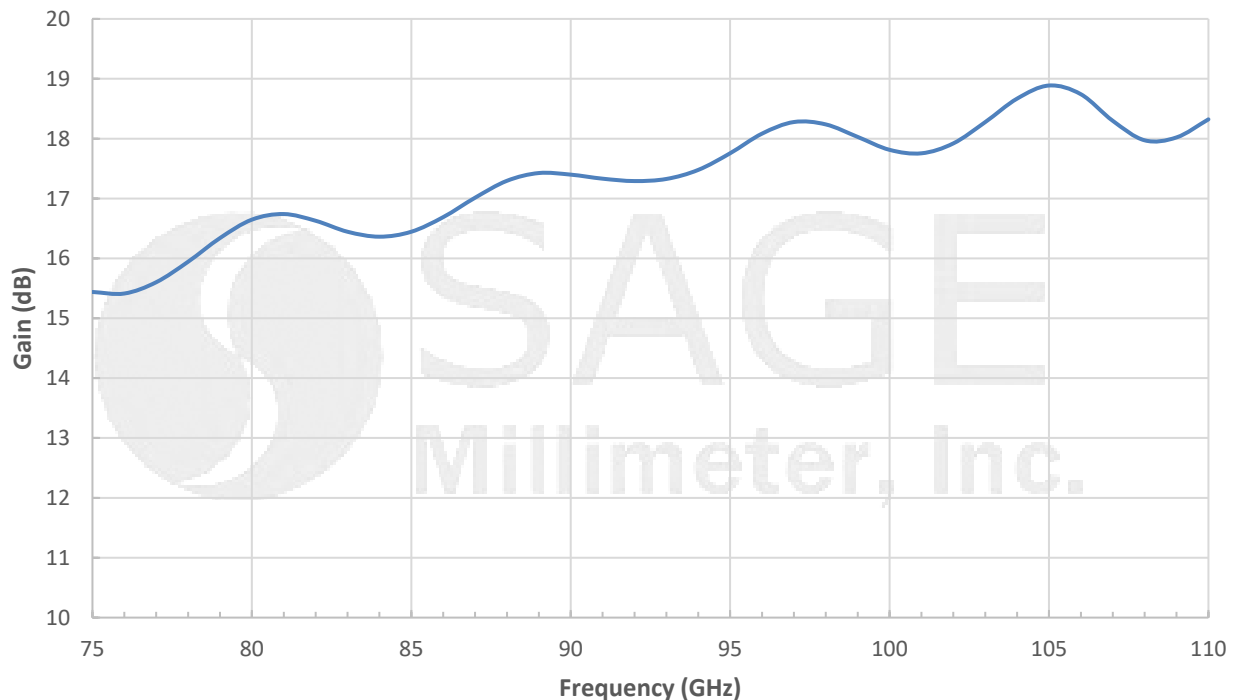


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Simulated Antenna Patterns @ 110 GHz

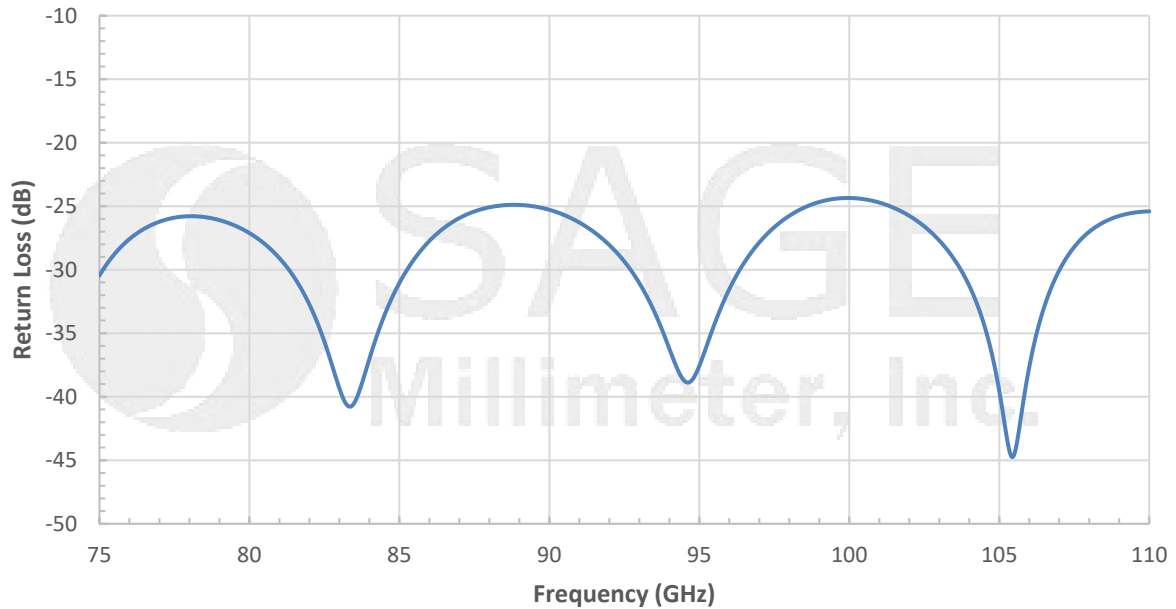
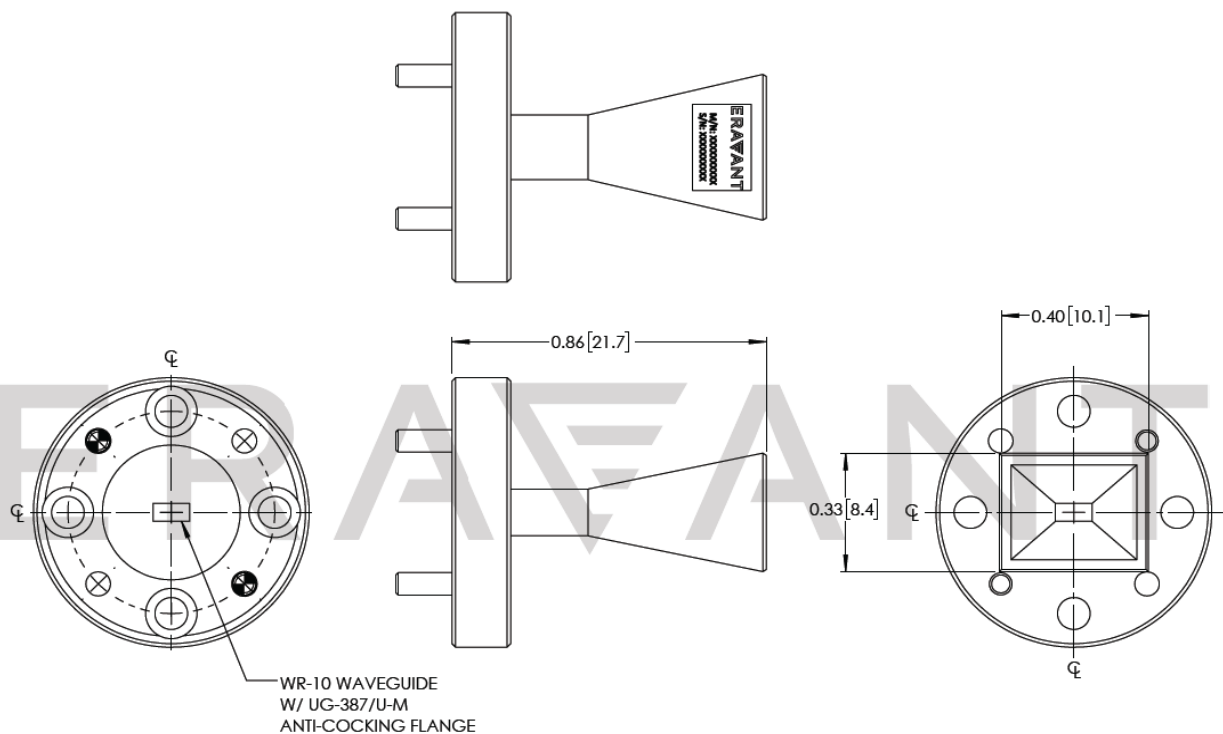


Simulated Gain vs. Frequency



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Simulated Return Loss 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](#).
- 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.

