

WR-12 Pyramidal Horn Antenna, 15 dBi Gain

Description:

Model SAR-1532-12-S2-2 is an E-band pyramidal horn antenna that operates from 60 GHz to 90 GHz. The antenna offers 15 dBi nominal gain and a typical half power beamwidth of 26 degrees on the E-plane and 28 degrees on the H-plane. The antenna supports linear polarized waveforms. The input of this antenna is a WR-12 waveguide with UG-387/U anti-cocking flange.



Features:

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

Applications:

- 5G Systems
- Antenna Ranges
- Antenna Gain Measurements
- System Setups

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	60 GHz		90 GHz
Gain		15 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		26°	
3 dB Beamwidth, H-Plane		28°	
Sidelobes, E-Plane		-15 dB	
Sidelobes, H-Plane		-22 dB	
Return Loss		-19 dB	
Specification Temperature		+25 °C	
Operation Temperature	-40 °C		+85 °C

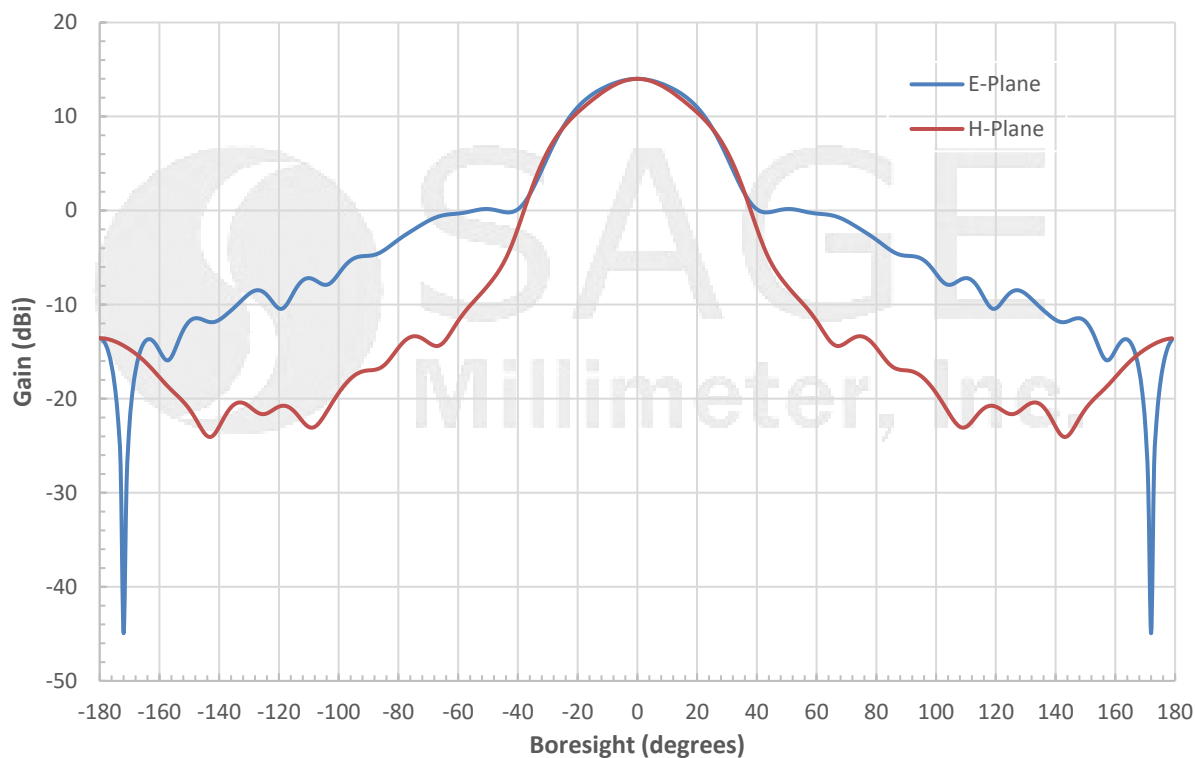
Mechanical Specifications:

Item	Specification
Antenna Port	WR-12 Waveguide
Flange Type	UG-387/U Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Weight	0.5 Oz
Size	0.64" (L) X 0.43" (W) X 0.35" (H)
Outline	AR-E15-A-2

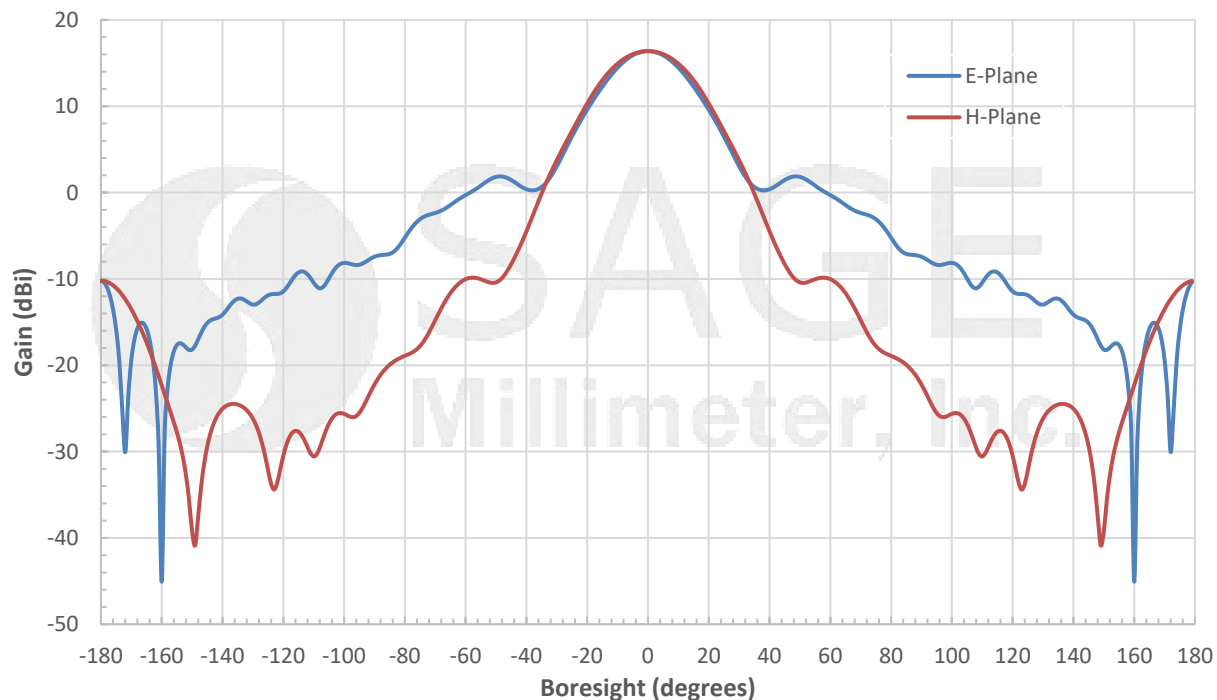


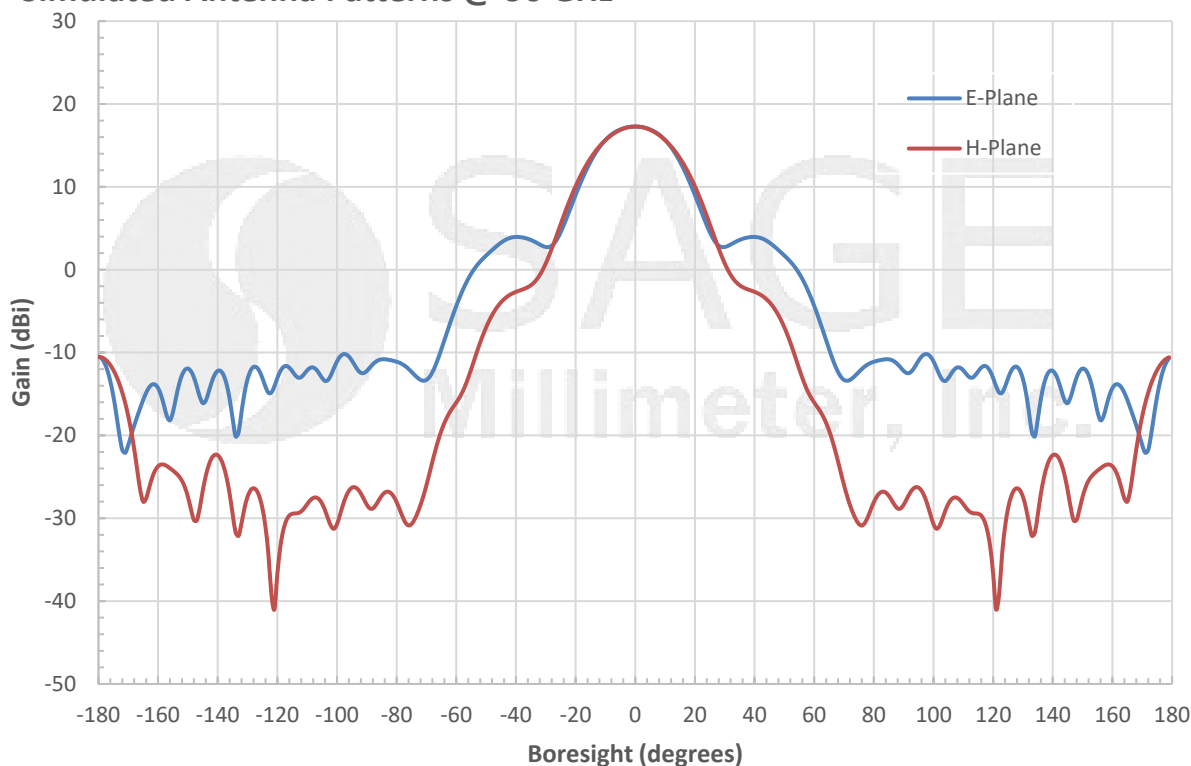
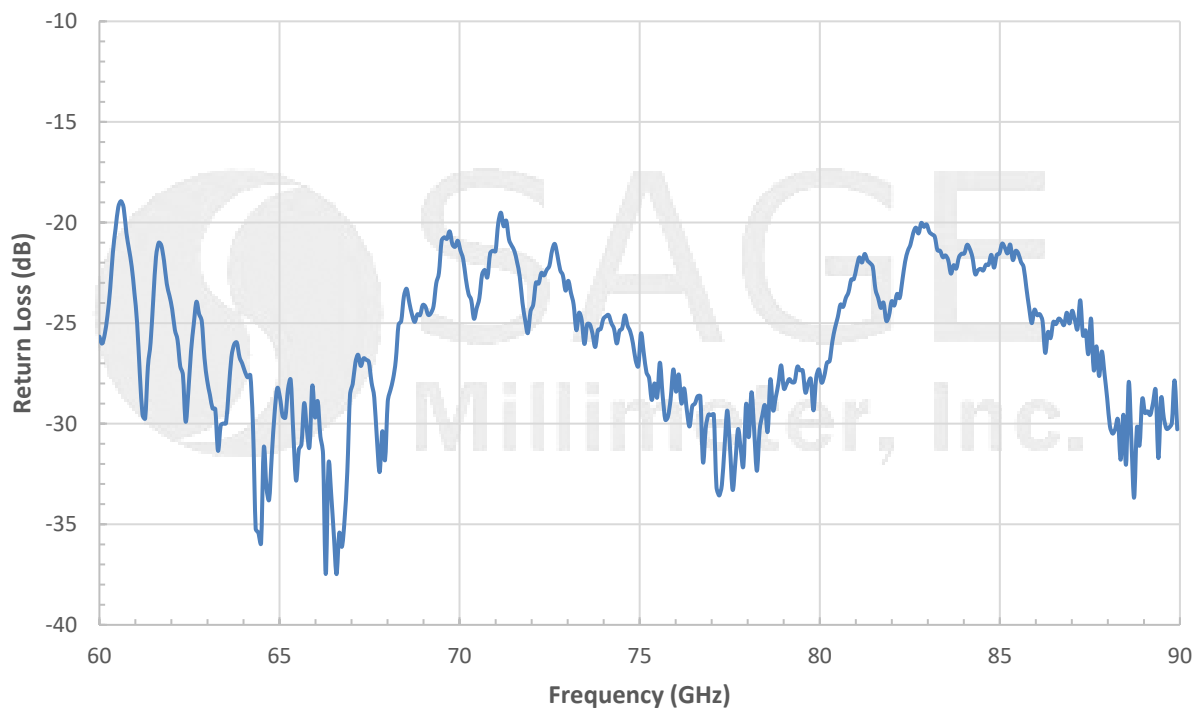
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Simulated Antenna Patterns @ 60 GHz



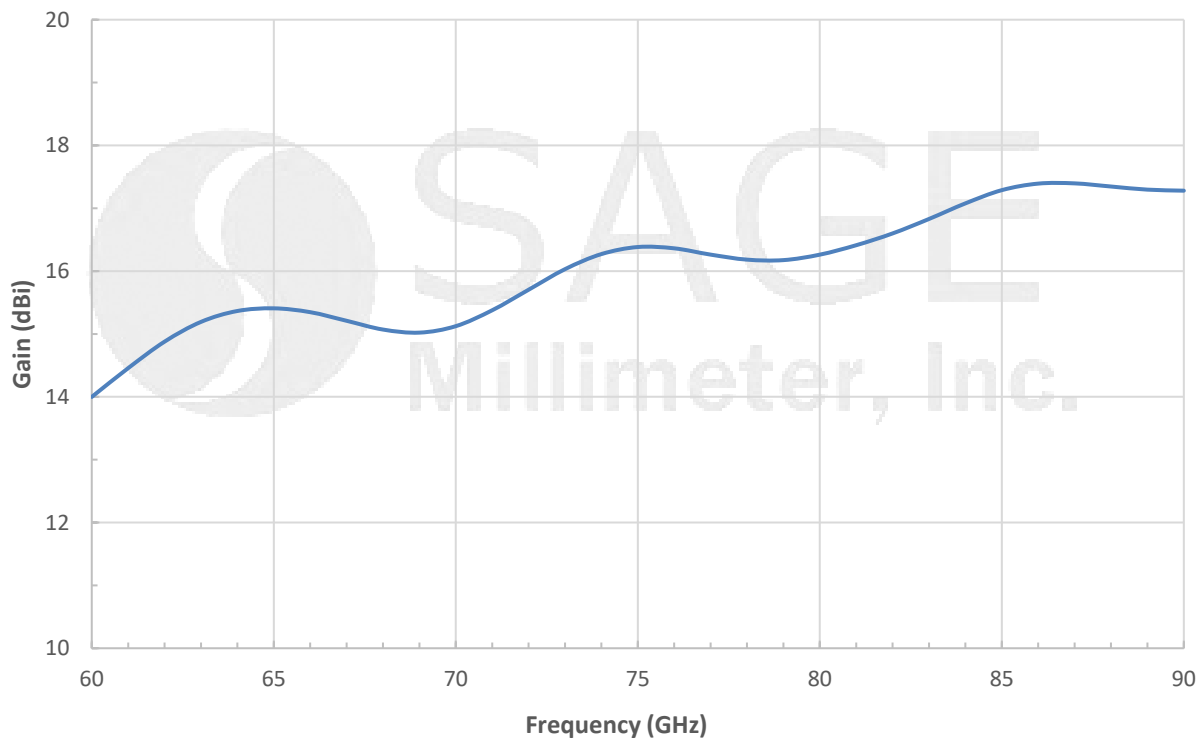
Simulated Antenna Patterns @ 75 GHz



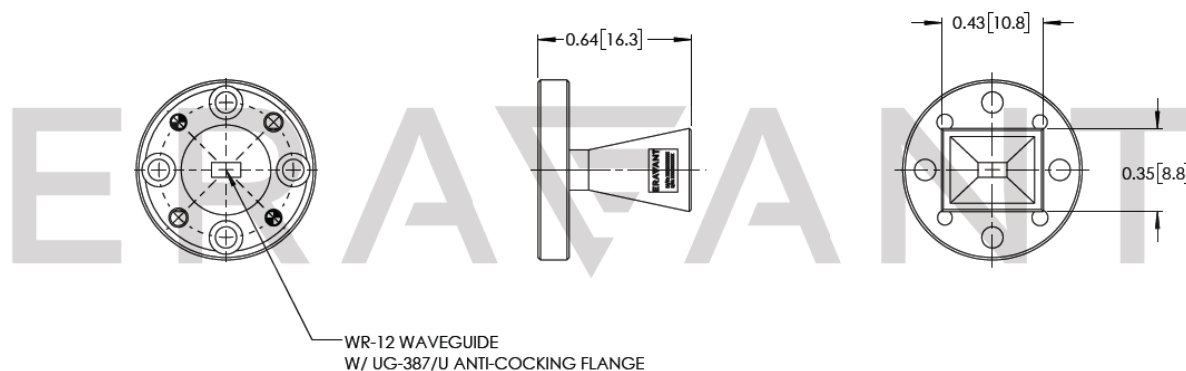
WR-12 Pyramidal Horn Antenna, 15 dBi Gain**Simulated Antenna Patterns @ 90 GHz****Measured Return Loss vs. Frequency**

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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 waveguide will cause performance degradation and possible device damage.

