



## WR-10 Pyramidal Horn Antenna, 15 dBi Gain

### Description:

**Model SAR-1532-10-S2** is a W-band pyramidal horn antenna that operates from 75 GHz to 110 GHz. The antenna offers 15 dBi nominal gain and a typical half power beamwidth of 32 degrees on the E-plane and 32 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		15 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		32°	
3 dB Beamwidth, H-Plane		32°	
Sidelobes, E-Plane		-14 dB	
Sidelobes, H-Plane		-25 dB	
Return Loss		-23 dB	
Specification Temperature		+25 °C	
Operation Temperature	-40 °C		+85 °C

### Mechanical Specifications:

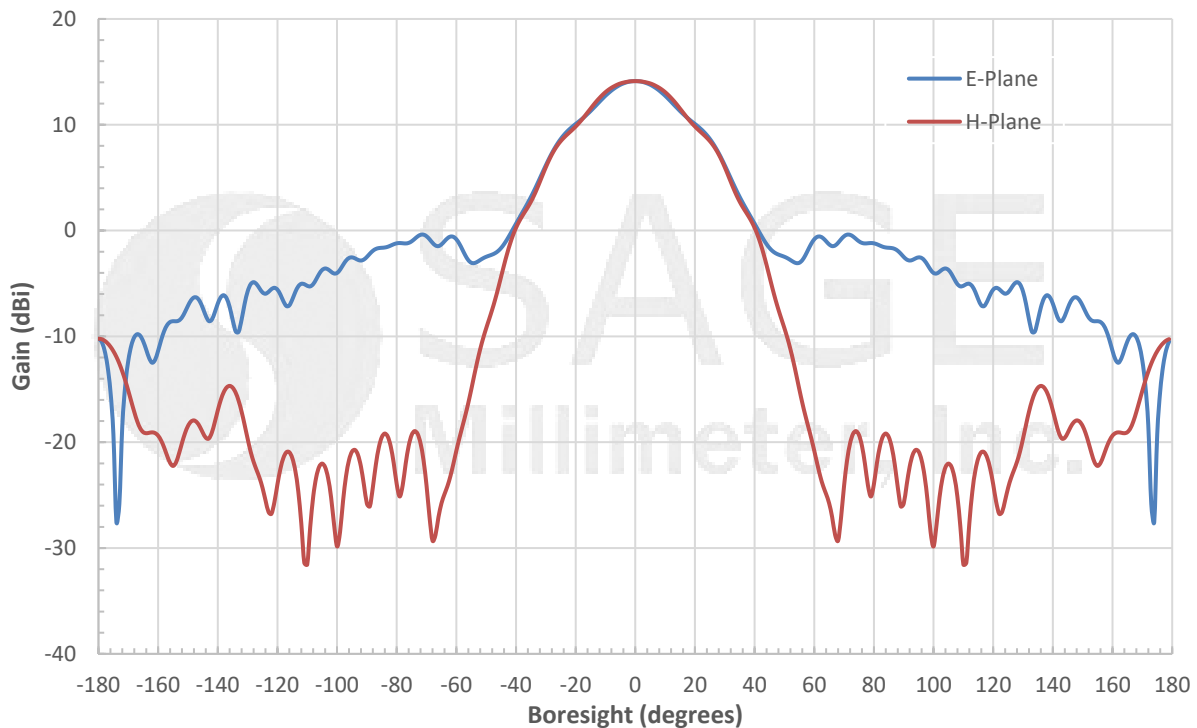
Item	Specification
Antenna Port	WR-10 Waveguide
Flange Type	UG-387/U-M Anti-Cocking Flange
Size	1.00" (L) X 0.34" (W) X 0.27"(H)
Material	Brass
Finish	Gold Plated
Weight	0.58 Oz
Outline	AR-W15-A



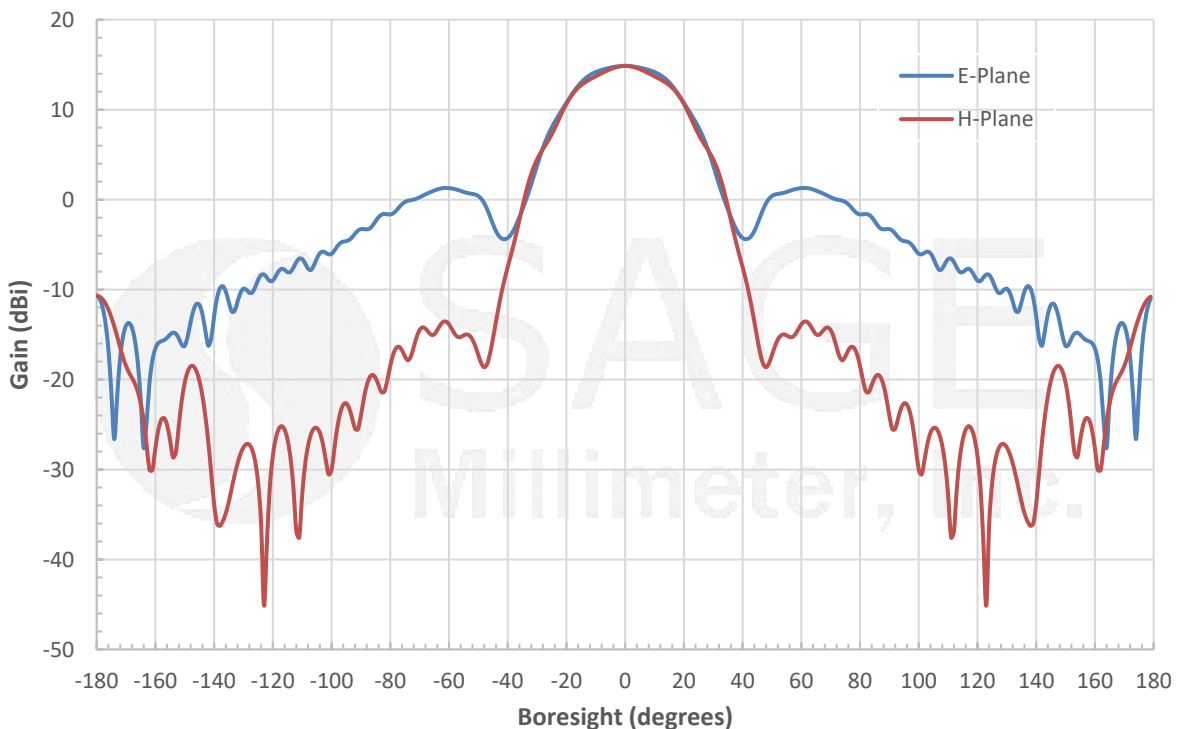


## WR-10 Pyramidal Horn Antenna, 15 dBi Gain

### Simulated Antenna Patterns @ 75 GHz



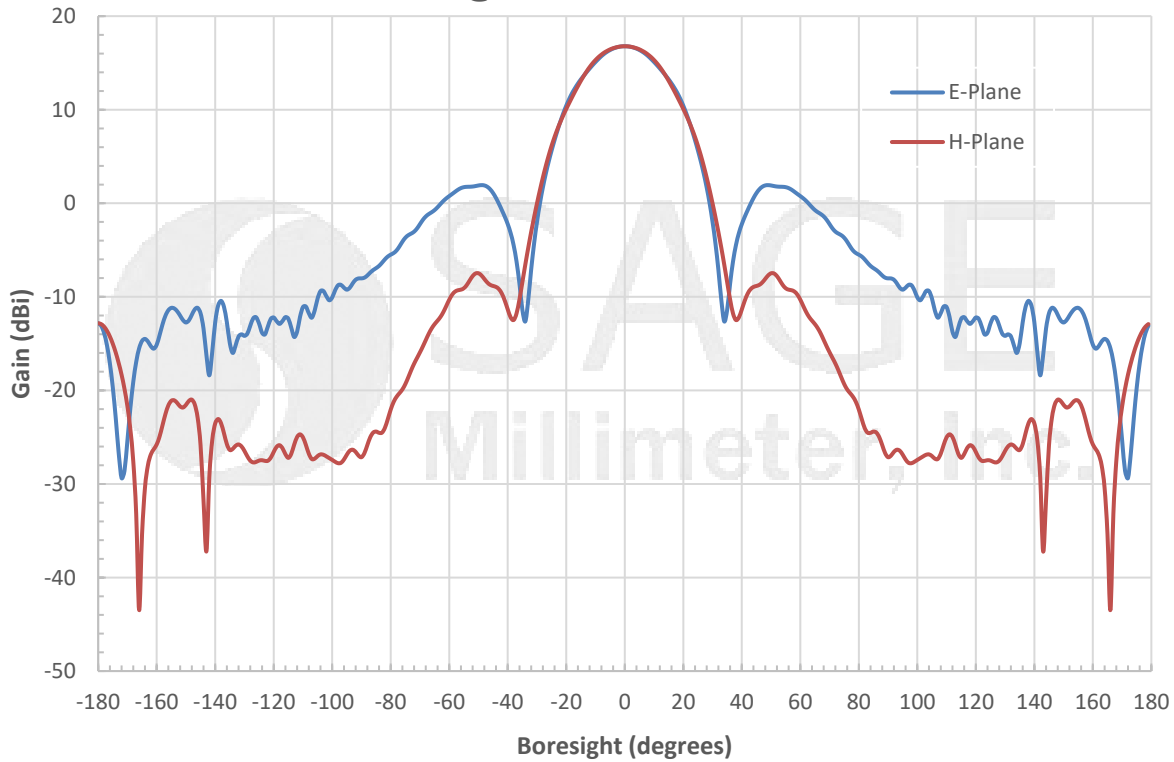
### Simulated Antenna Patterns @ 92.5 GHz



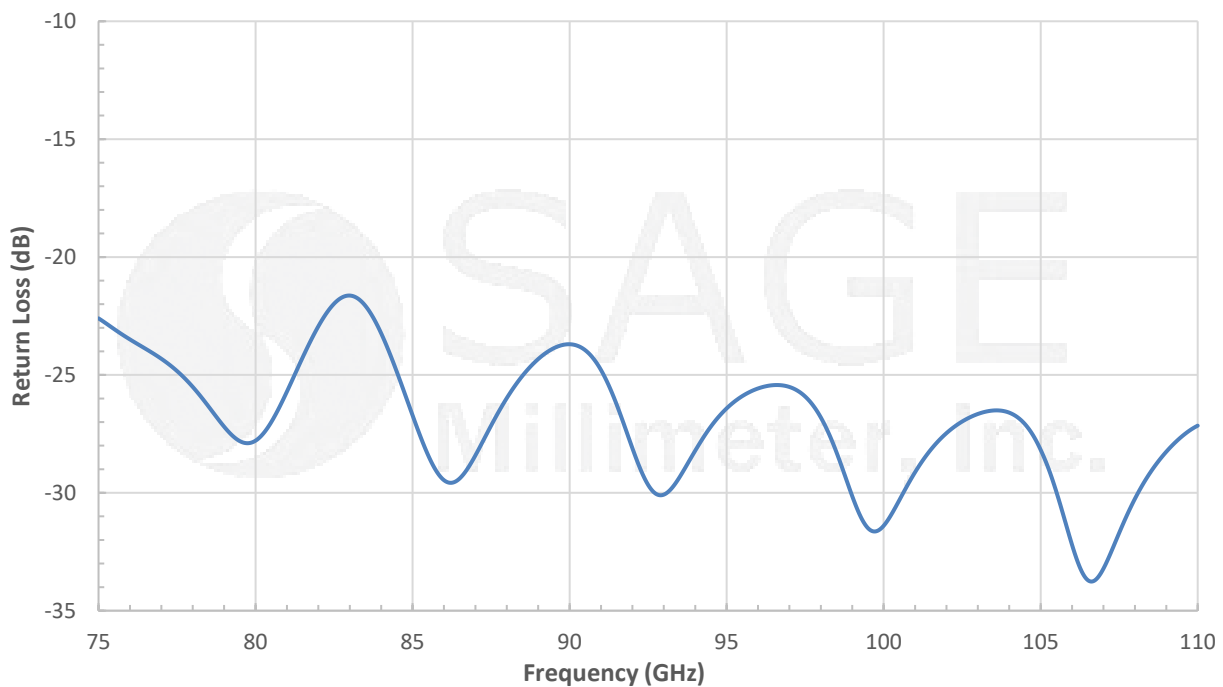


## WR-10 Pyramidal Horn Antenna, 15 dBi Gain

### Simulated Antenna Patterns @ 110 GHz



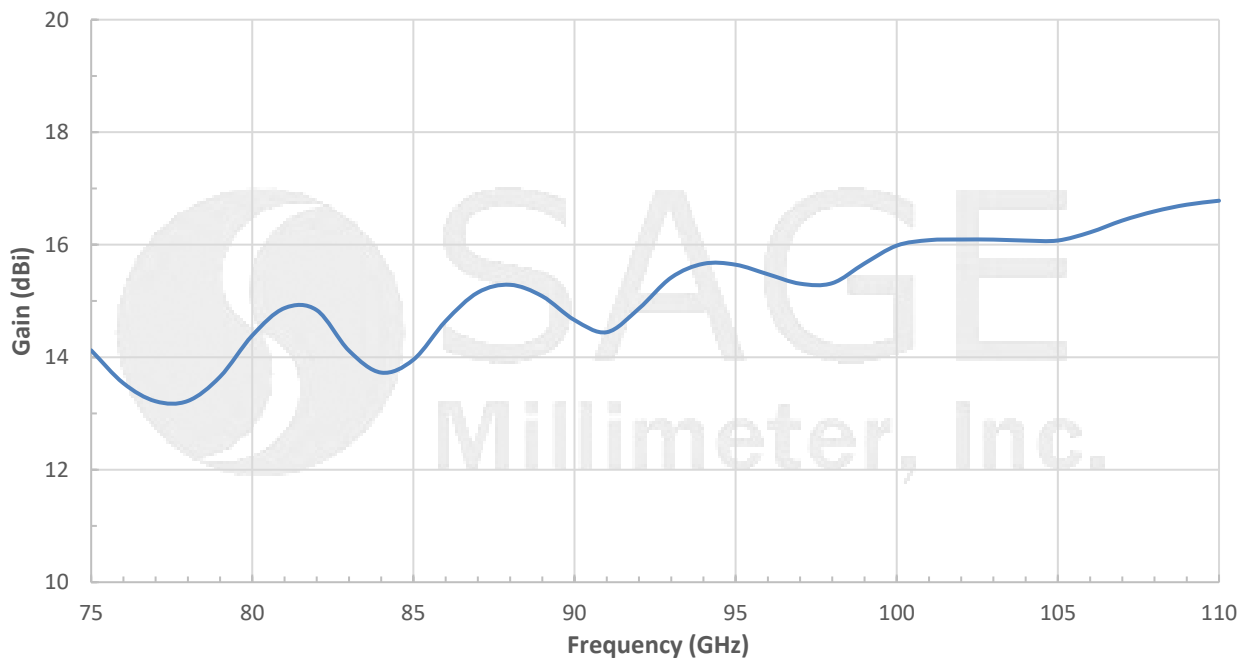
### Simulated Return Loss vs. Frequency



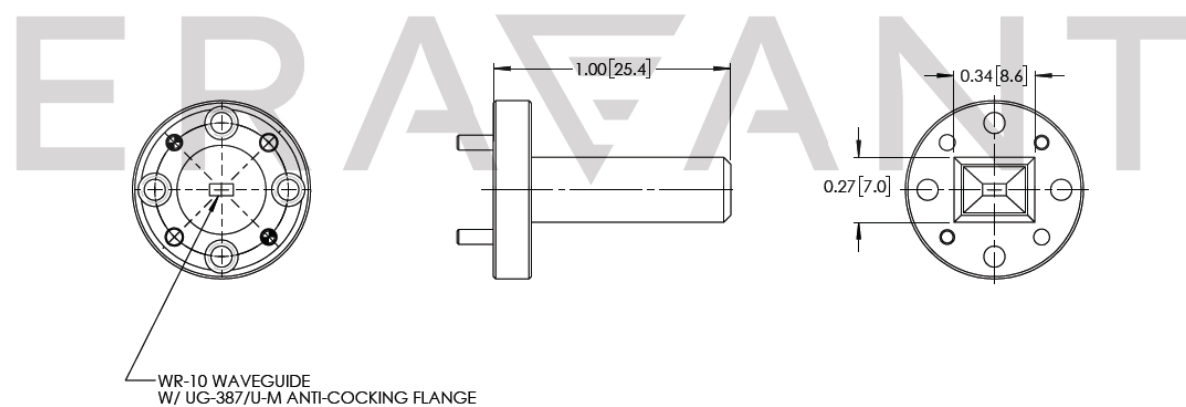
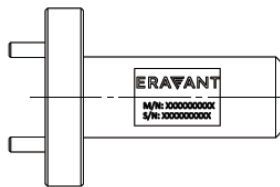


## WR-10 Pyramidal Horn Antenna, 15 dBi Gain

Simulated Gain vs. Frequency



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



WR-10 WAVEGUIDE  
W/ UG-387/U-M ANTI-COCKING FLANGE



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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 waveguide will cause performance degradation and possible device damage.

