

## SAR-2507-06-S2

### WR-06 Pyramidal Horn Antenna, 25 dBi Gain

**SAR-2507-06-S2** is a D-band pyramidal horn antenna that operates from 110 to 170 GHz. The antenna offers 25 dBi nominal gain and a typical half power beamwidth of 9 degrees on the E-plane and 10 degrees on the H-plane. The antenna supports linear polarized waveforms. The input of this antenna is a WR-06 waveguide with UG-387/U-M anti-cocking flange.



#### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	110 GHz		170 GHz
Gain		25 dBi	
Cross-Polarization *		30 dB	
3 dB Beamwidth, E-plane		9°	
3 dB Beamwidth, H-plane		10°	
Sidelobes, E-plane		-14 dB	
Sidelobes, H-plane		-30 dB	
Return Loss		23 dB	
Specification Temperature		+25°C	
Operating Temperature	-45°C		+85°C

**\*\*Actual measured cross-polarization level shall be around 40 dB Typ, 35 dB Min. However, our testing service needs to be purchased to guarantee the level. Contact us for more information.**

#### Mechanical Specifications:

Item	Specification
Antenna Port	WR-06 Waveguide
Flange Type	UG-387/ U-M Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Weight	0.7 Oz
Outline	AR-D3-A-2

#### ECCN

EAR99

#### FEATURES

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

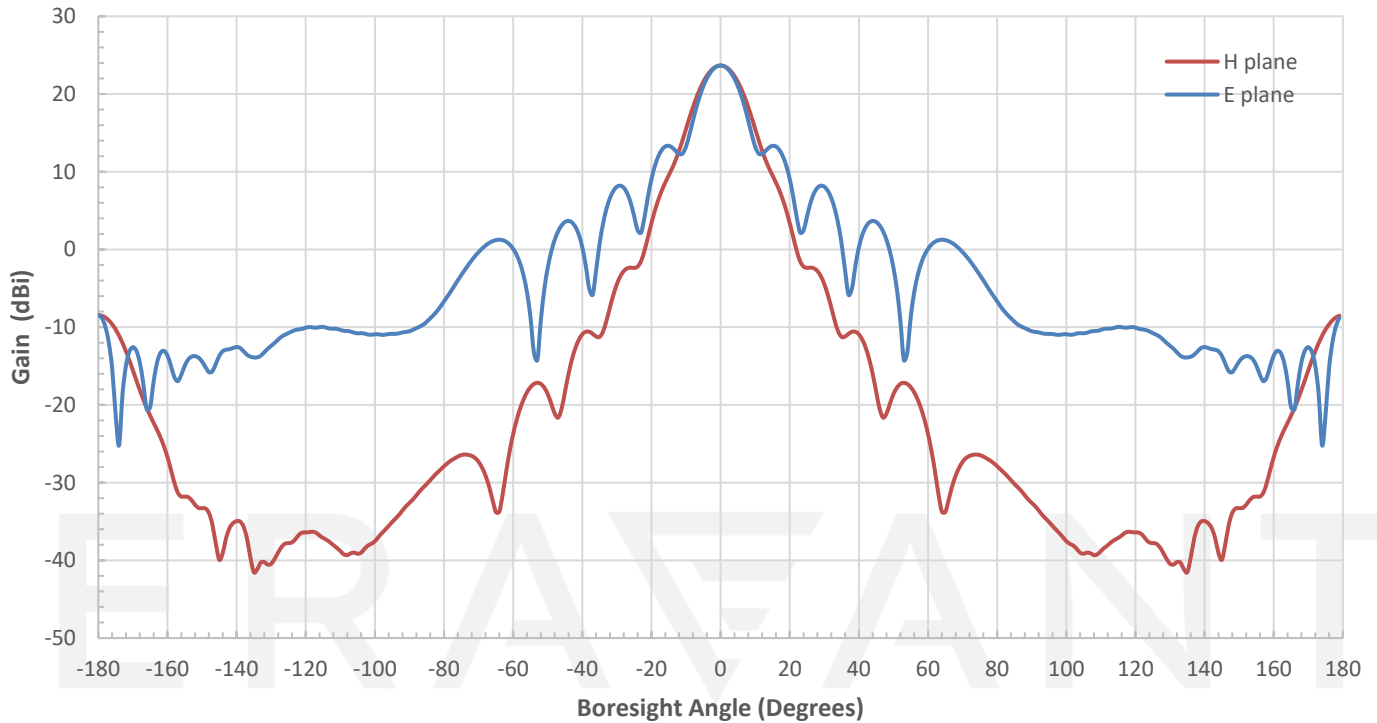
#### APPLICATIONS

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

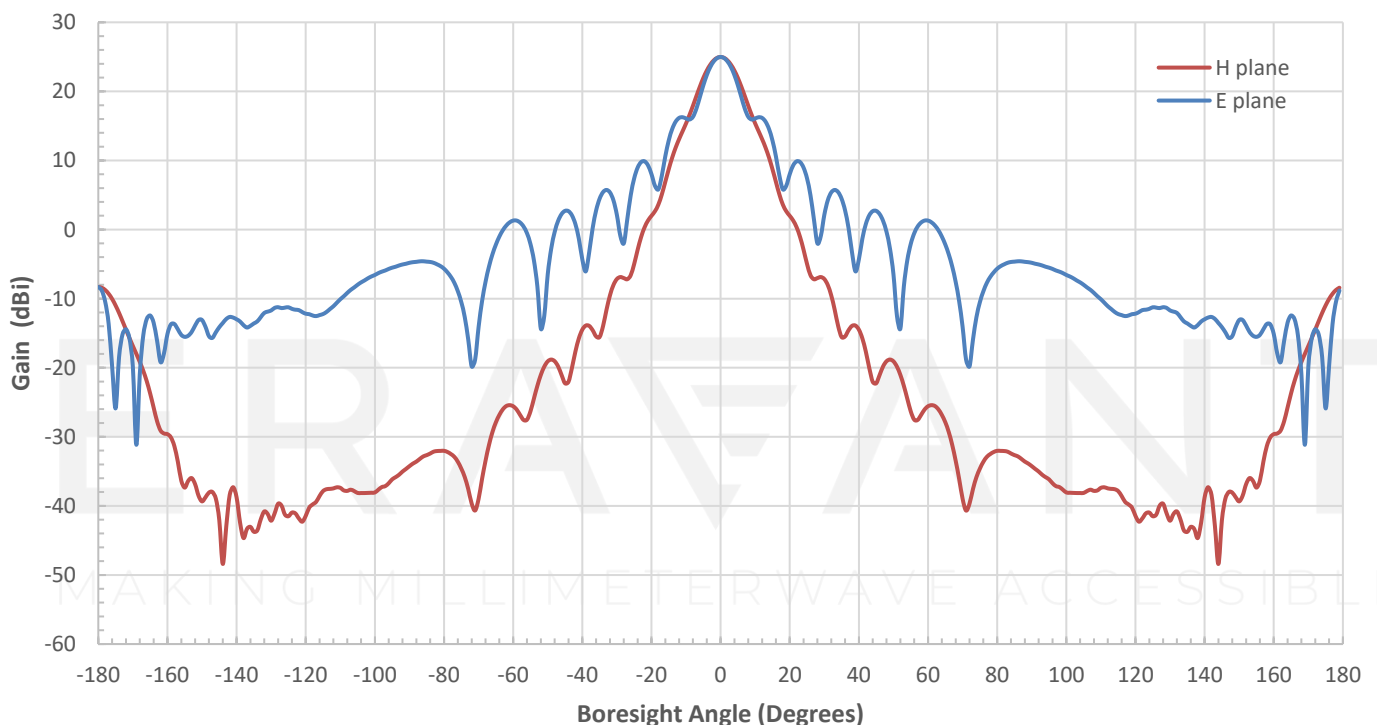
#### SUPPLEMENTAL DETAILS



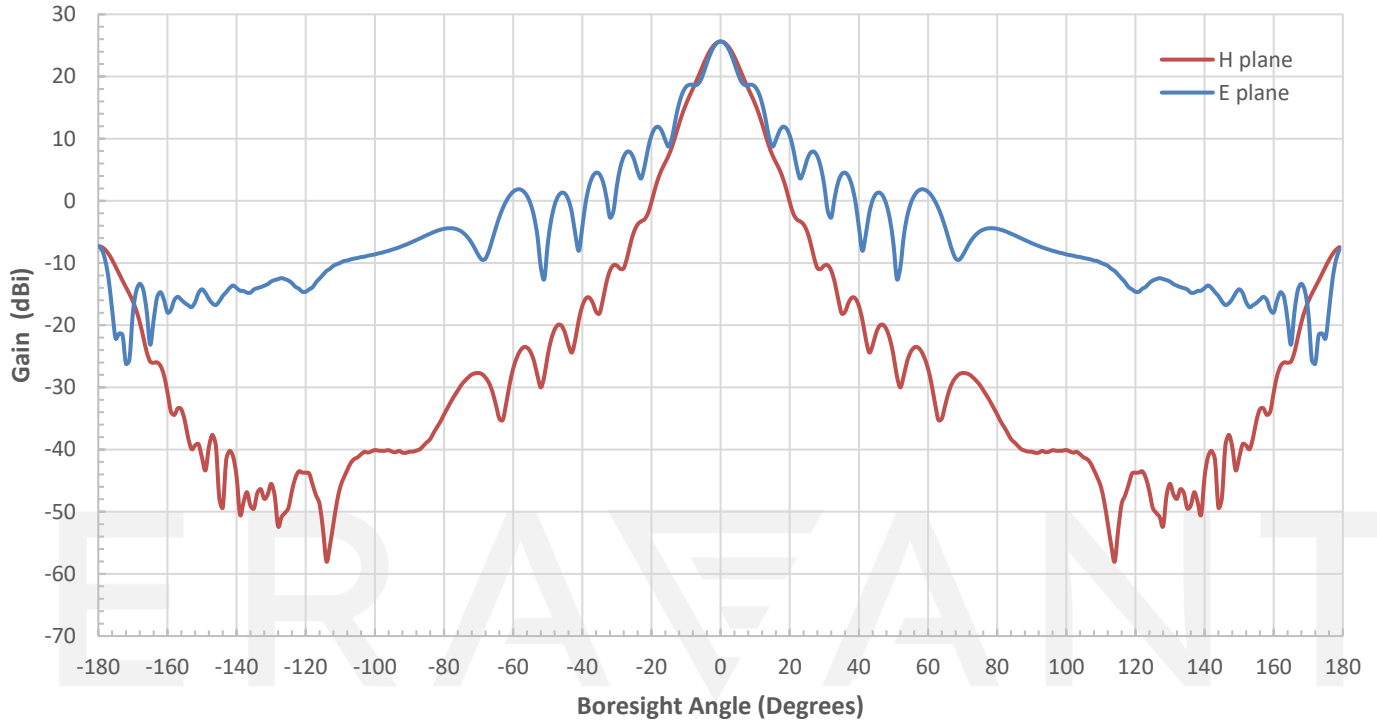
### Simulated Antenna Pattern at 110 GHz



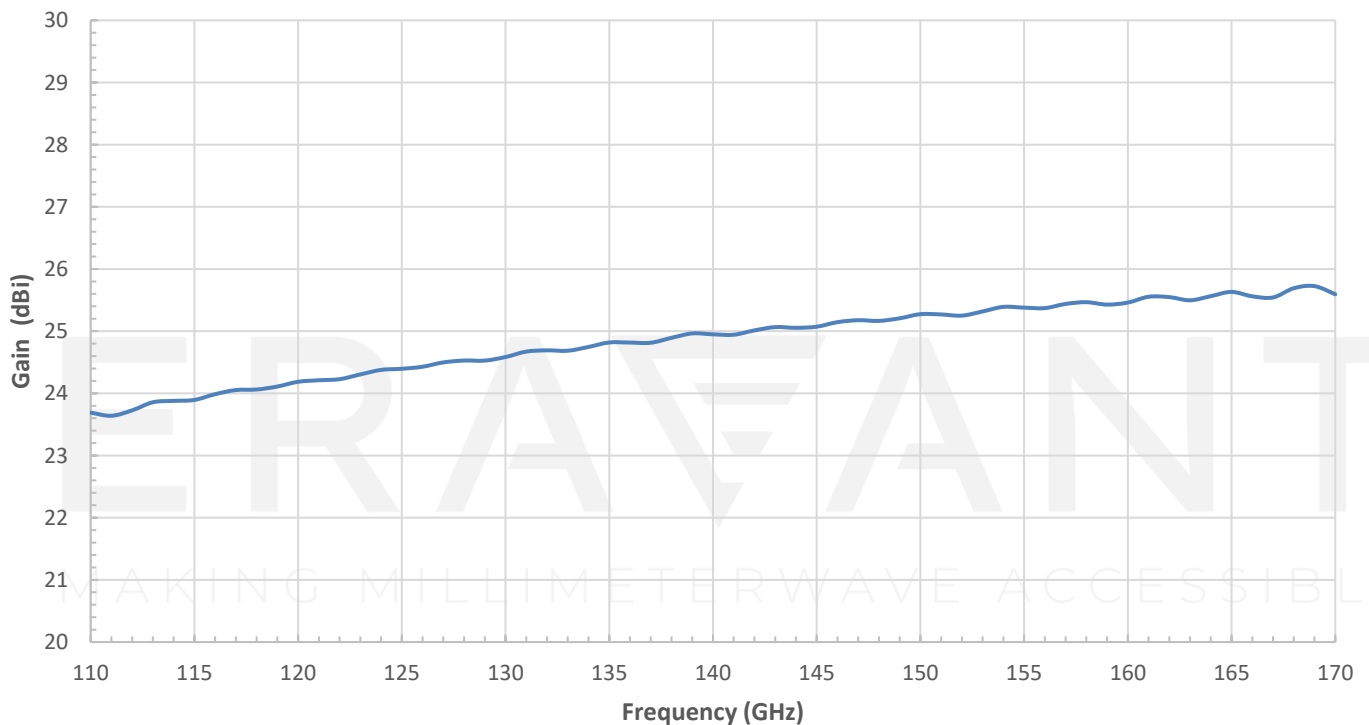
### Simulated Antenna Pattern at 140 GHz



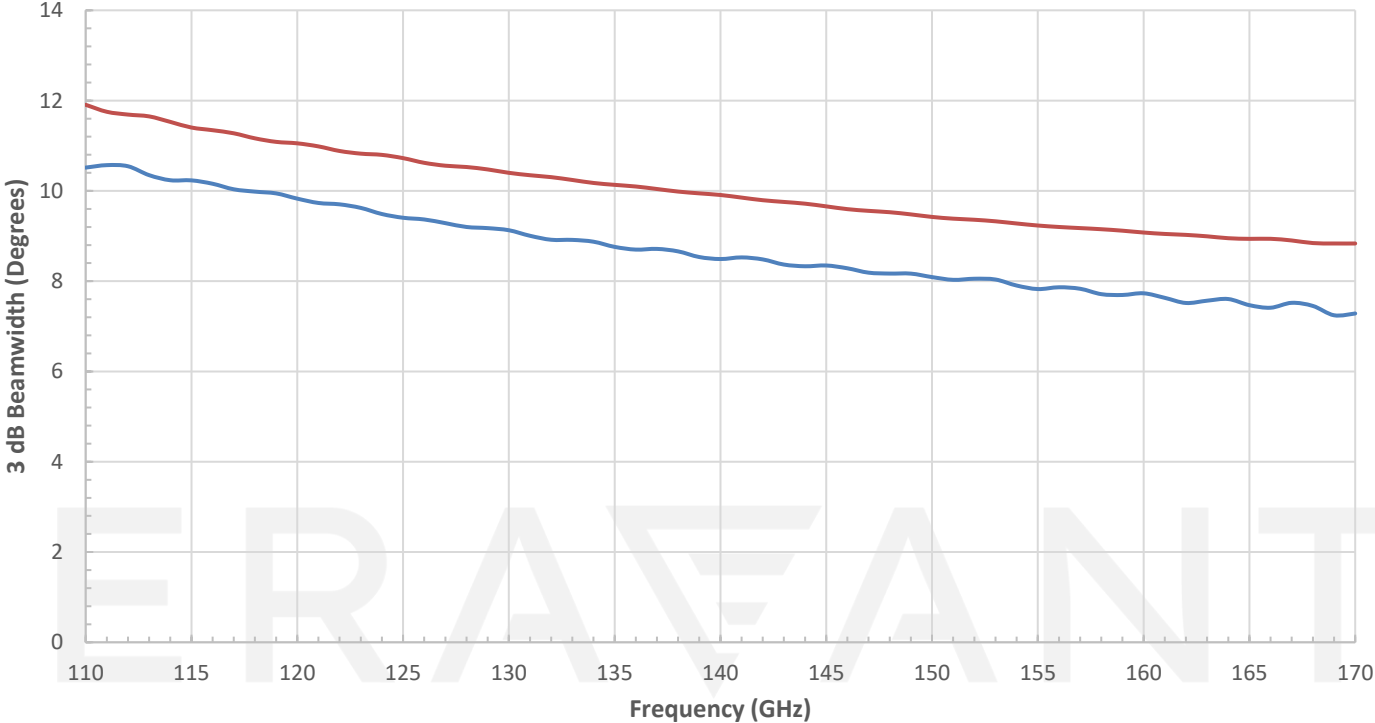
### Simulated Antenna Pattern at 170 GHz



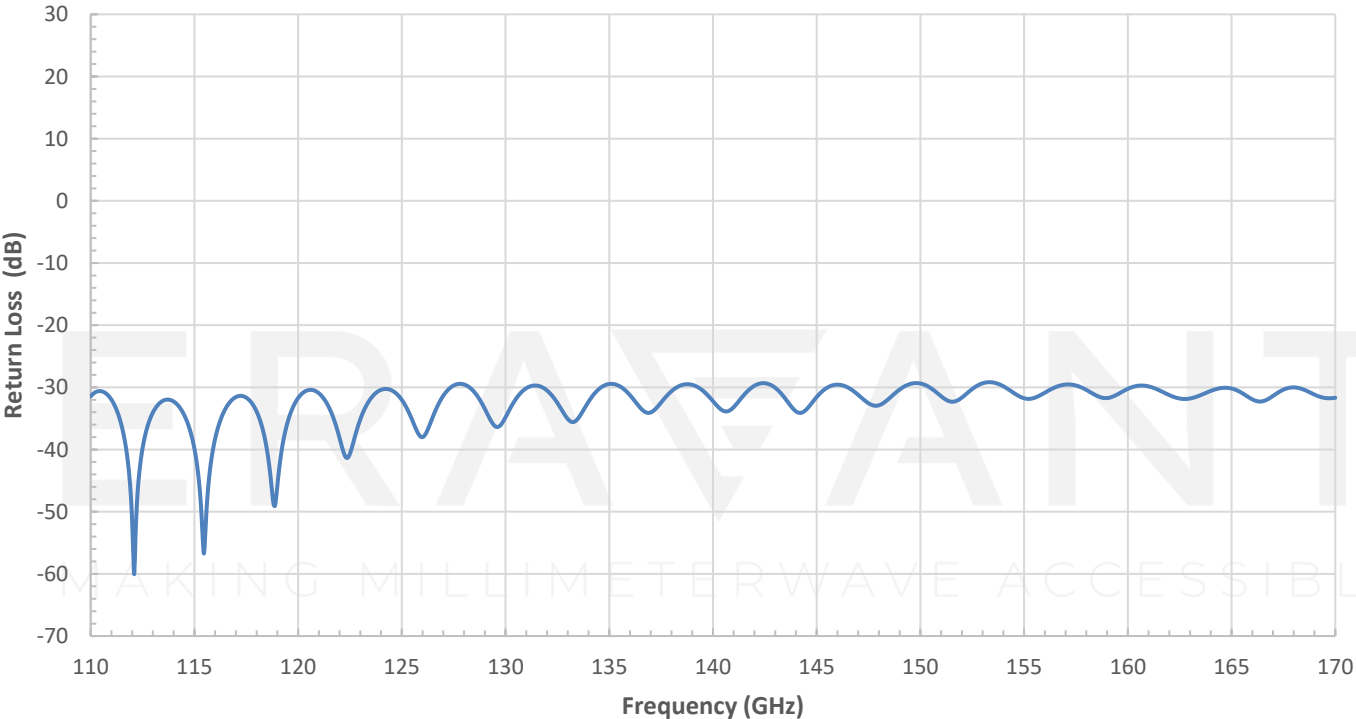
### Simulated Gain vs Frequency



Simulated 3dB Beamwidth vs Frequency

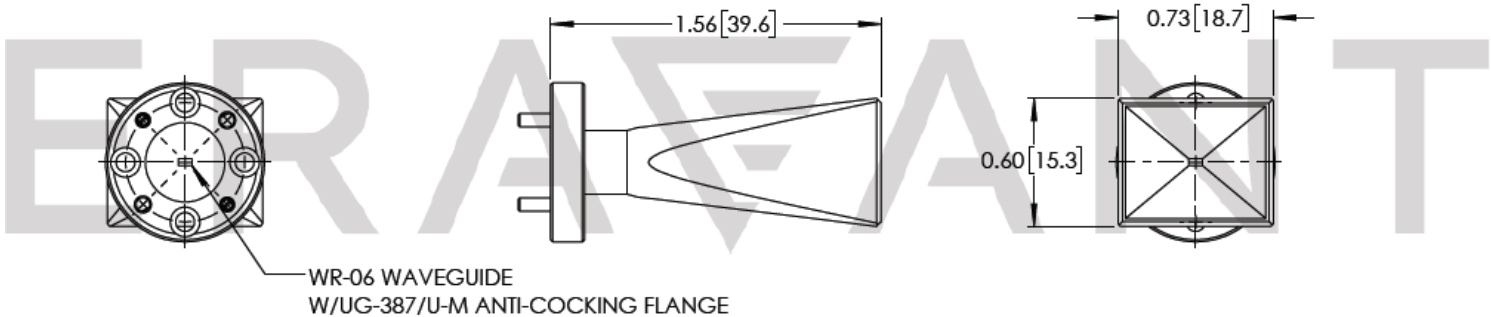
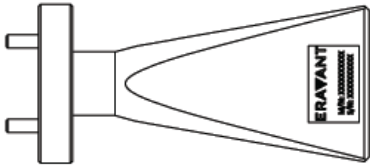


Simulated Return Loss vs Frequency



## SAR-2507-06-S2

**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 waveguide will cause performance degradation and may damage the device.

