

SAR-2309-06-S2

WR-06 Pyramidal Horn Antenna, 23 dBi Gain

SAR-2309-06-S2 is a D-band pyramidal horn antenna that operates from 110 to 170 GHz. The antenna offers 23 dBi nominal gain and a typical half power beamwidth of 11 degrees on the E-plane and 12 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		23 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		11°	
3 dB Beamwidth, H-Plane		12°	
Sidelobes, E-Plane		-14 dB	
Sidelobes, H-Plane		-30 dB	
Return Loss		23 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-06 Waveguide with UG-387/U-M Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Weight	0.4 Oz
Outline	AR-D2-A-2

ECCN

EAR99

FEATURES

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

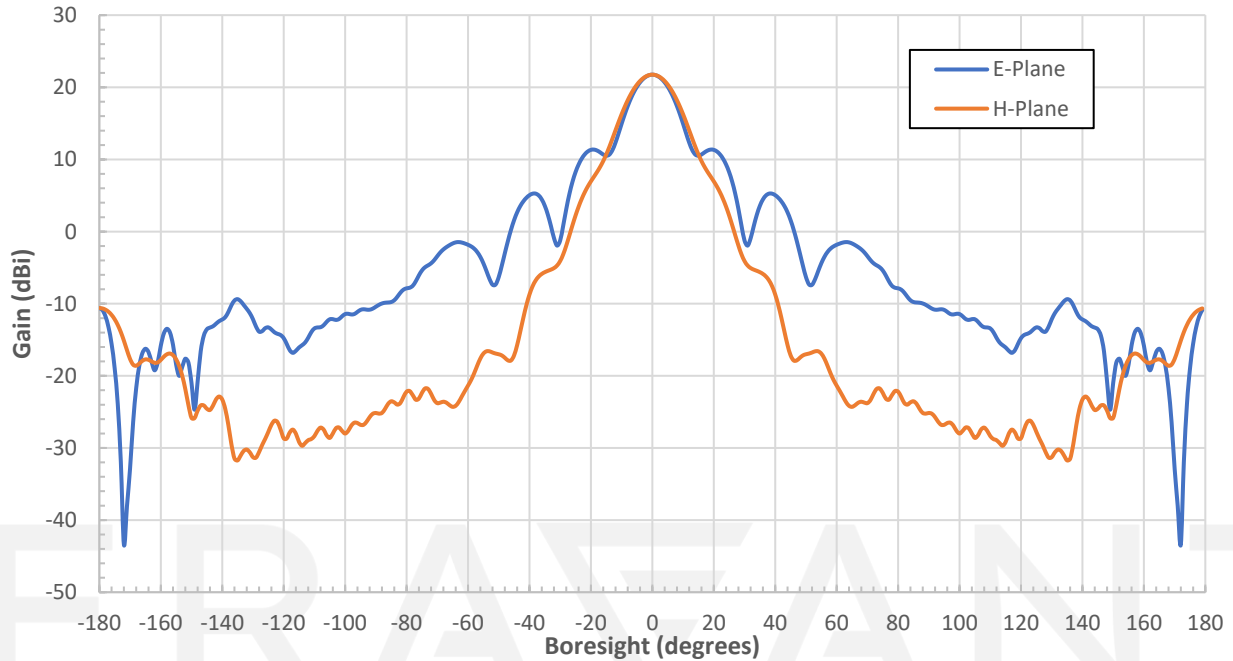
APPLICATIONS

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

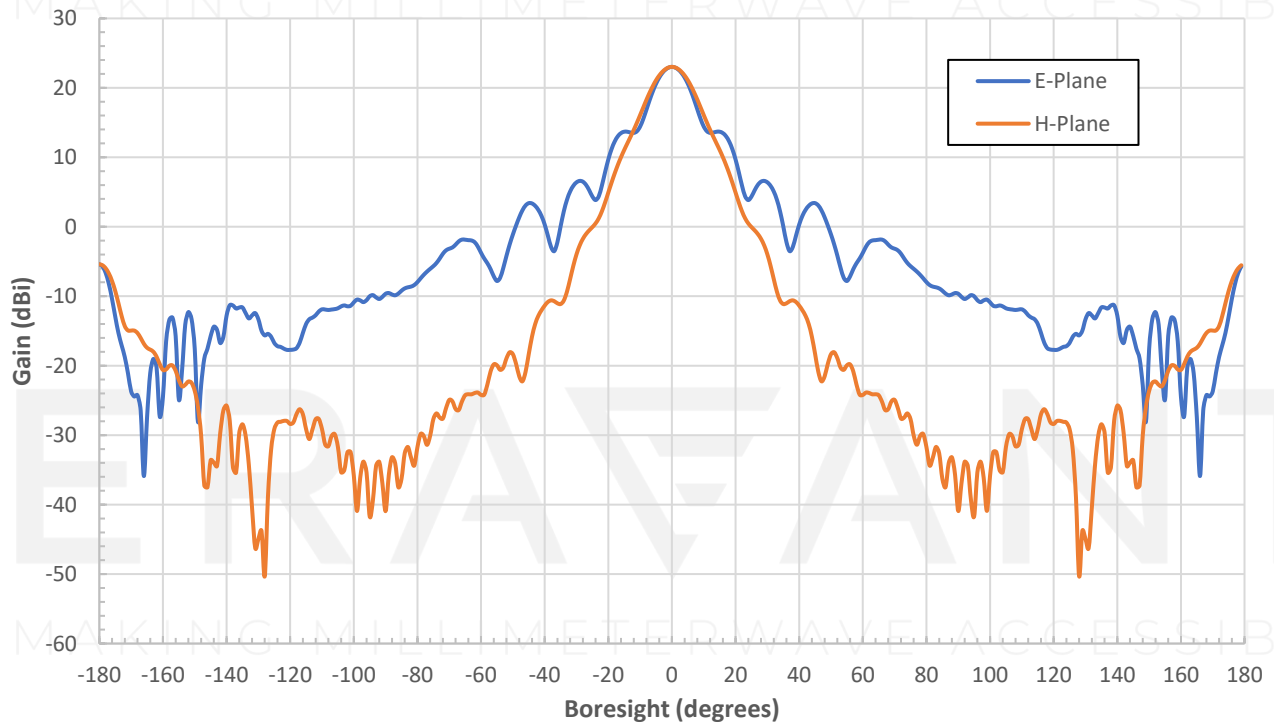
SUPPLEMENTAL DETAILS



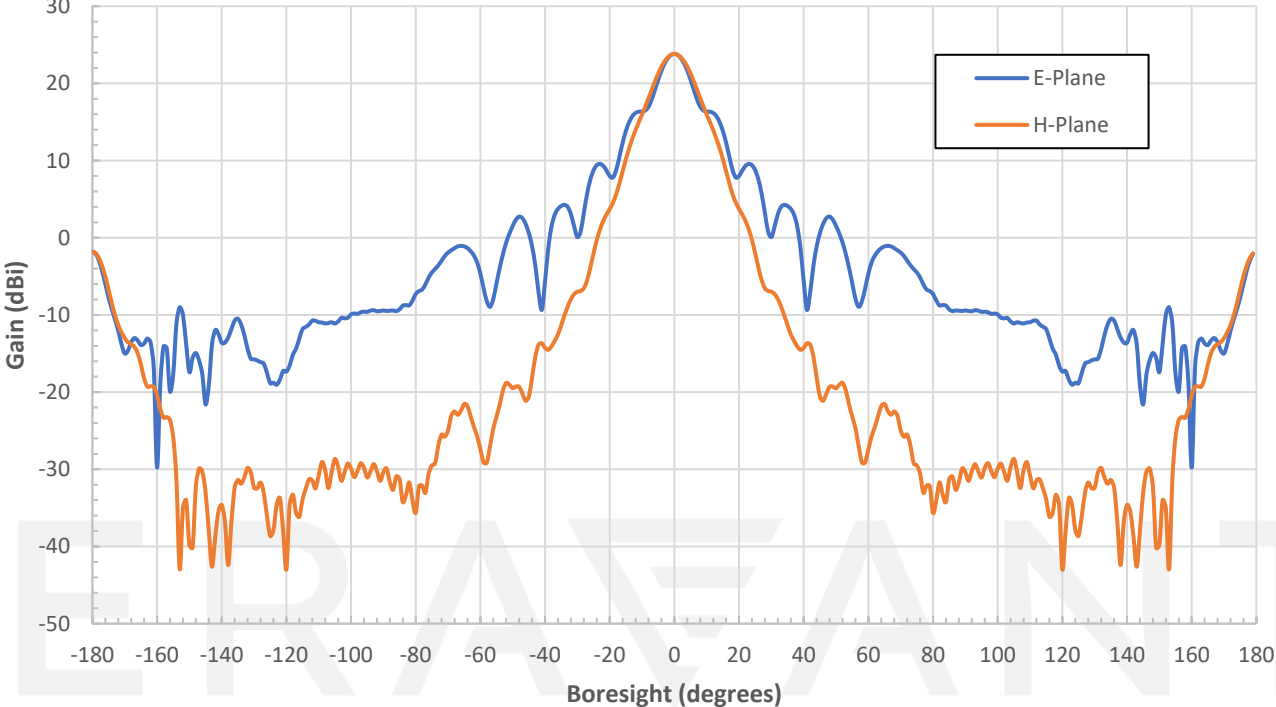
Simulated Antenna Patterns @ 110 GHz



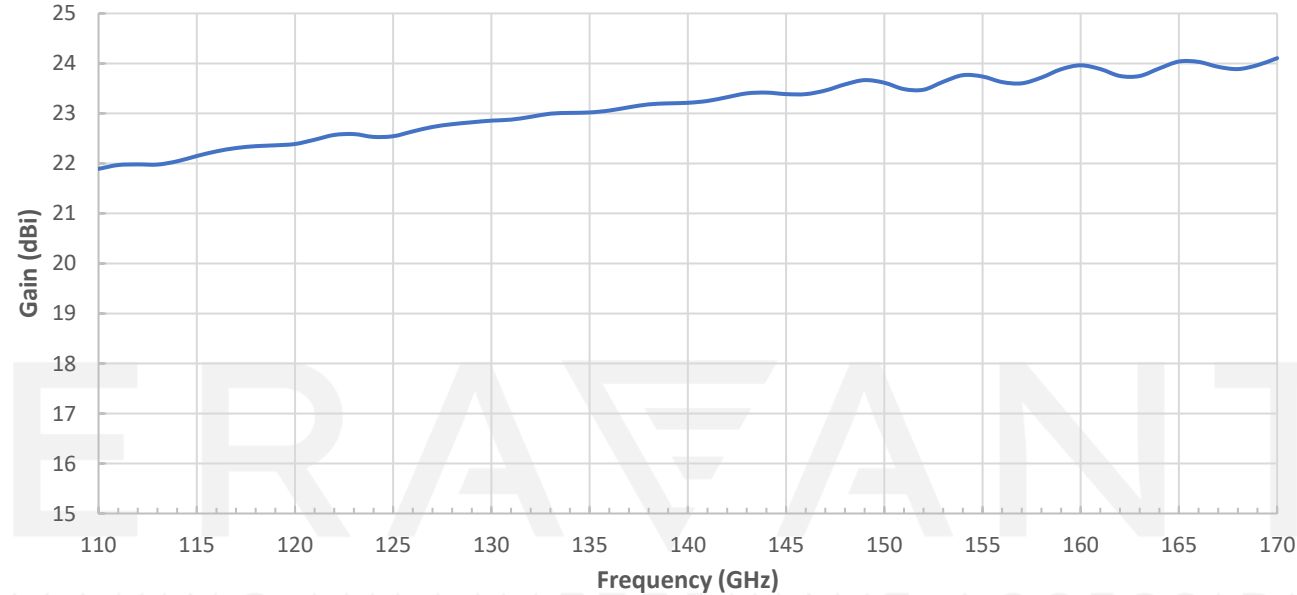
Simulated Antenna Patterns @ 140 GHz



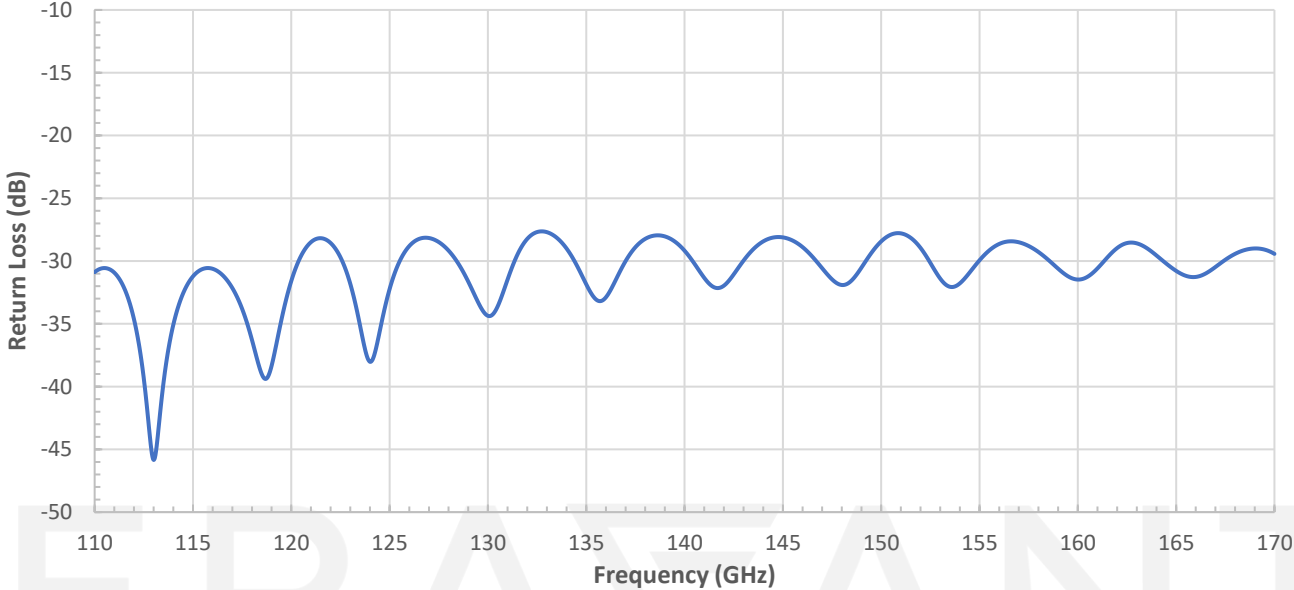
Simulated Antenna Patterns @ 170 GHz



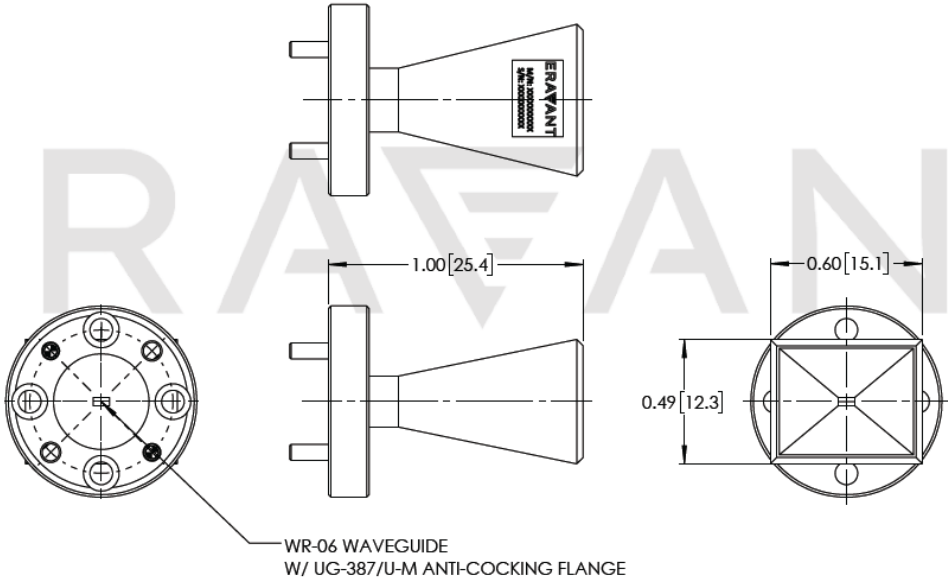
Simulated Gain vs. Frequency



Simulated Return Loss vs. Frequency



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](#).
- All data presented is simulated. Actual measured data may slightly vary.
- 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.

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