

SAR-1050-06-S2

WR-06 Pyramidal Horn Antenna, 10 dBi Gain

SAR-1050-06-S2 is a D-band pyramidal horn antenna that operates from 110 to 170 GHz. The antenna offers 10 dBi nominal gain and a typical half power beamwidth of 58 degrees on the E-plane and 55 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 Range	110 GHz		170 GHz
Gain		10 dBi	
3 dB Beamwidth, E-Plane		58°	
3 dB Beamwidth, H-Plane		55°	
Polarization		Linear	
Sidelobes, E-Plane		-18 dB	
Sidelobes, H-Plane		-20 dB	
Return Loss		20 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-06 Waveguide
Flange Type	UG-387/U-M Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Weight	0.3 Oz
Size	0.75" (L) X 0.75" (Ø)
Outline	AR-D10-A

ECCN

EAR99

FEATURES

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

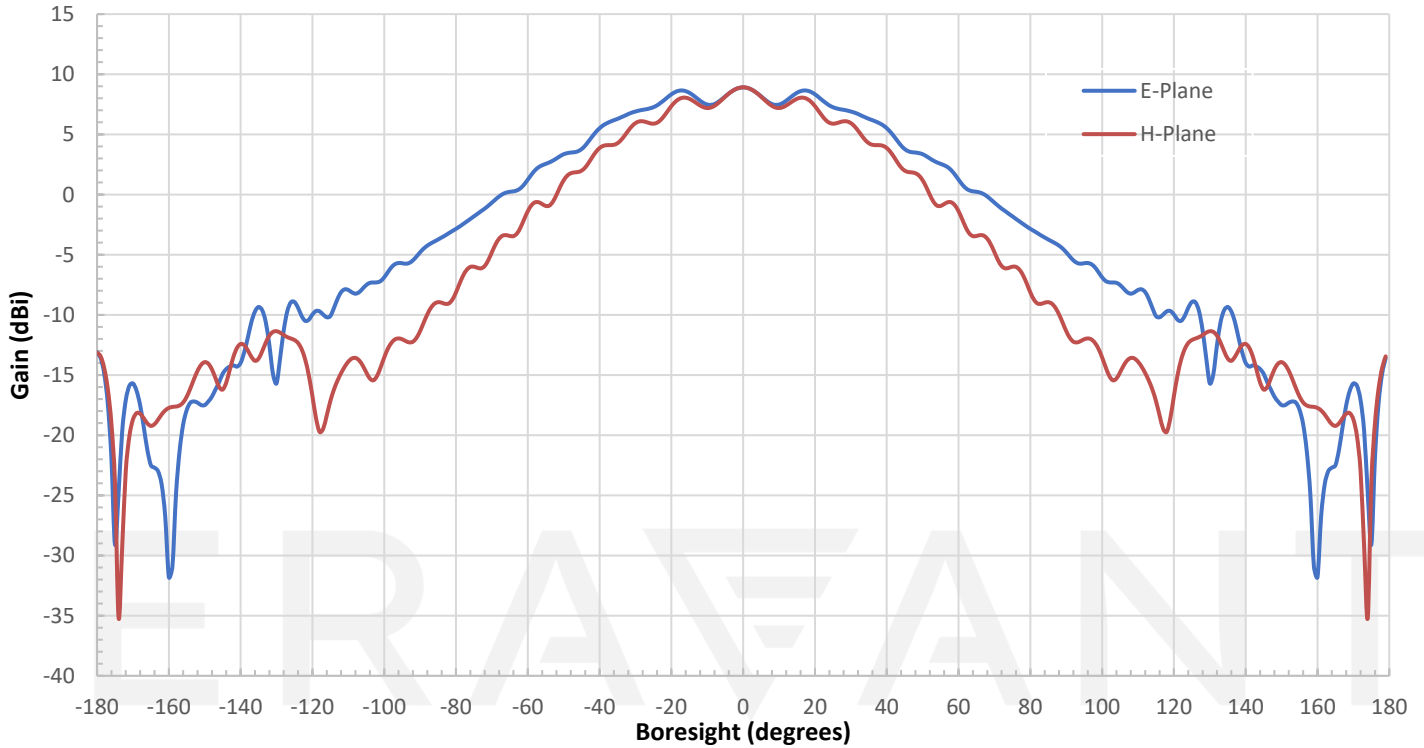
APPLICATIONS

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

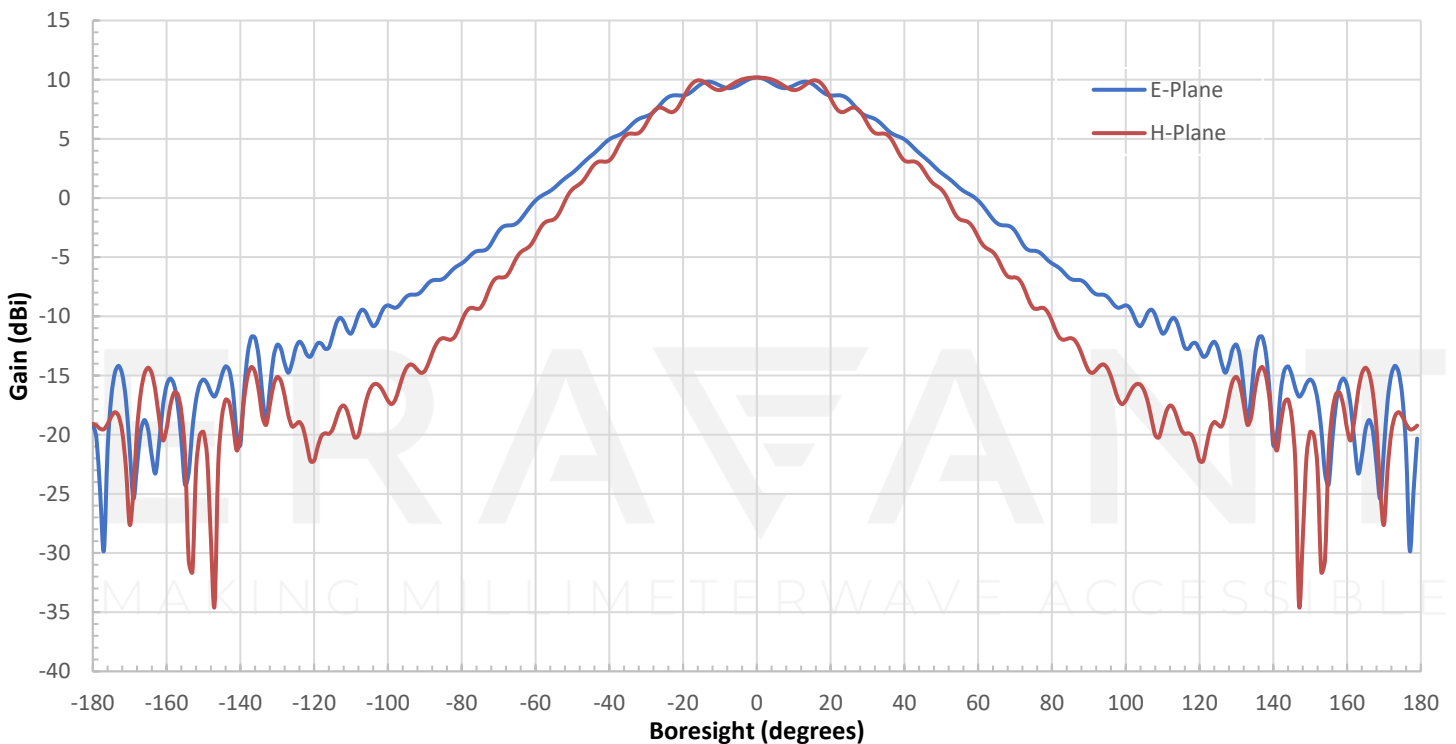
SUPPLEMENTAL DETAILS



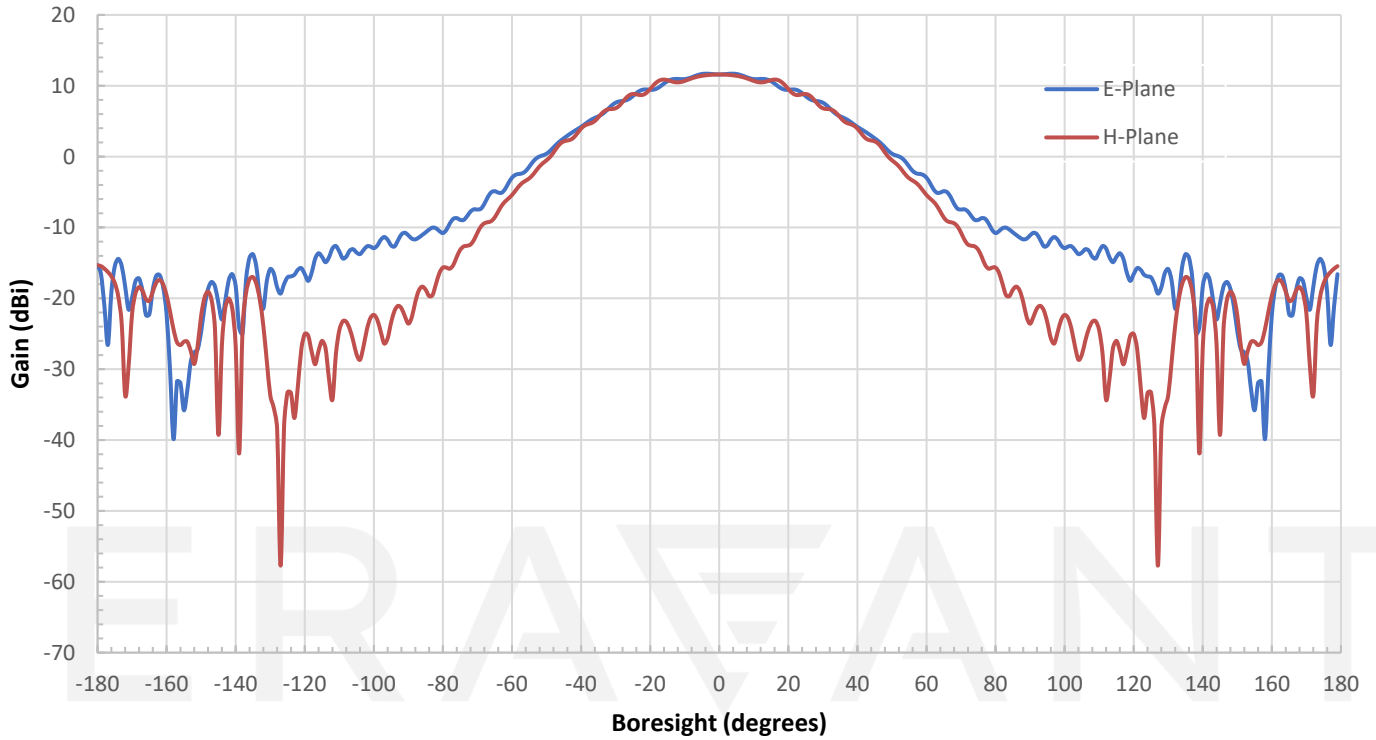
Simulated Antenna Patterns @ 110 GHz



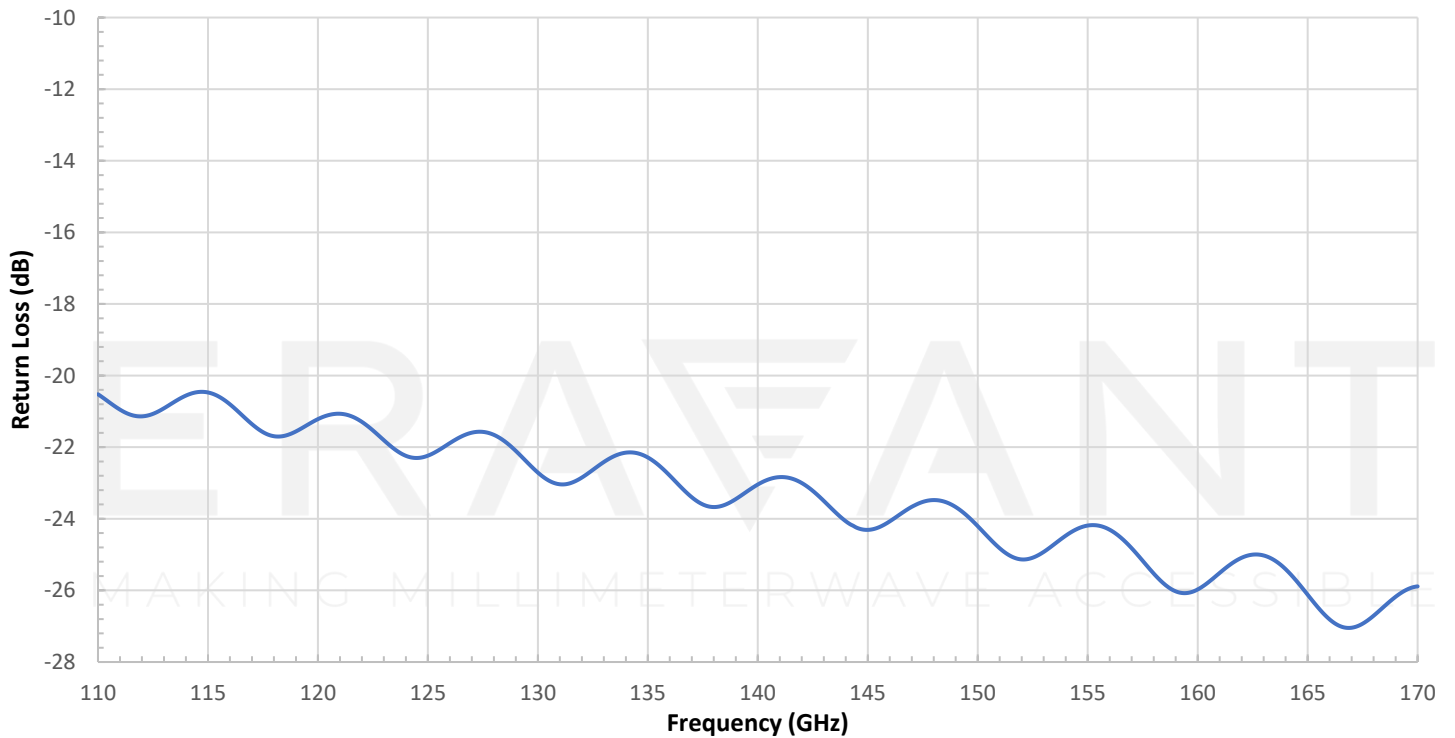
Simulated Antenna Patterns @ 140 GHz



Simulated Antenna Patterns @ 170 GHz

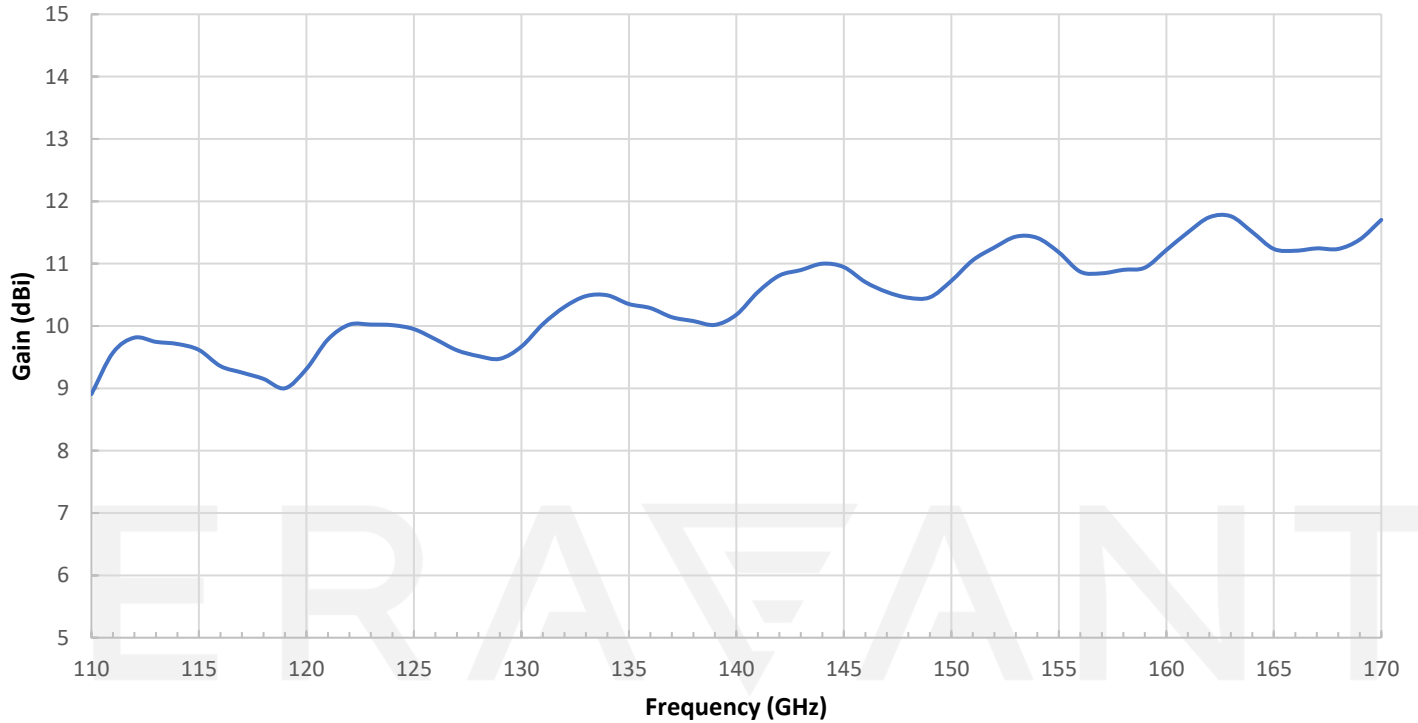


Simulated Return Loss vs. Frequency

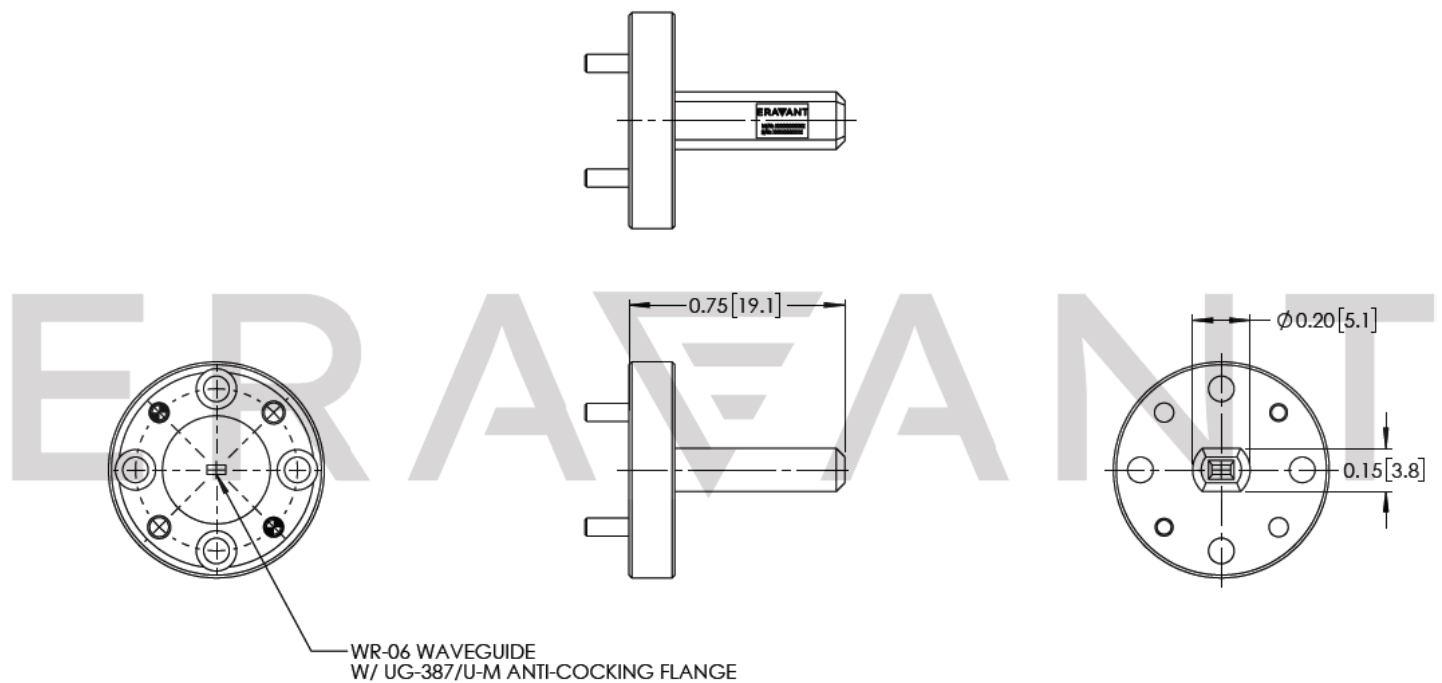


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Simulated Gain vs. Frequency



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](#).
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Any foreign objects in the antenna will cause performance degradation and possible device damage.

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