

SAR-2309-03-S2

WR-03 Pyramidal Horn Antenna, 23 dBi Gain

SAR-2309-03-S2 is a WR-03 pyramidal horn antenna that operates from 220 GHz to 330 GHz. The antenna offers 23 dBi nominal gain and a typical half power beamwidth of 9 degrees on the E-plane and 11 degrees on the H-plane. The antenna supports linear polarized waveforms. The input of this antenna is a WR-03 waveguide with UG-387/U-M anti-cocking flange.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	220 GHz		330 GHz
Gain		23 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		9°	
3 dB Beamwidth, H-Plane		11°	
Sidelobes, E-Plane		-9 dB	
Sidelobes, H-Plane		-21 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-03 Waveguide
Flange Type	UG-387/U-M Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Weight	0.4 Oz
Outline	AR-032-A-2

ECCN

EAR99

FEATURES

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

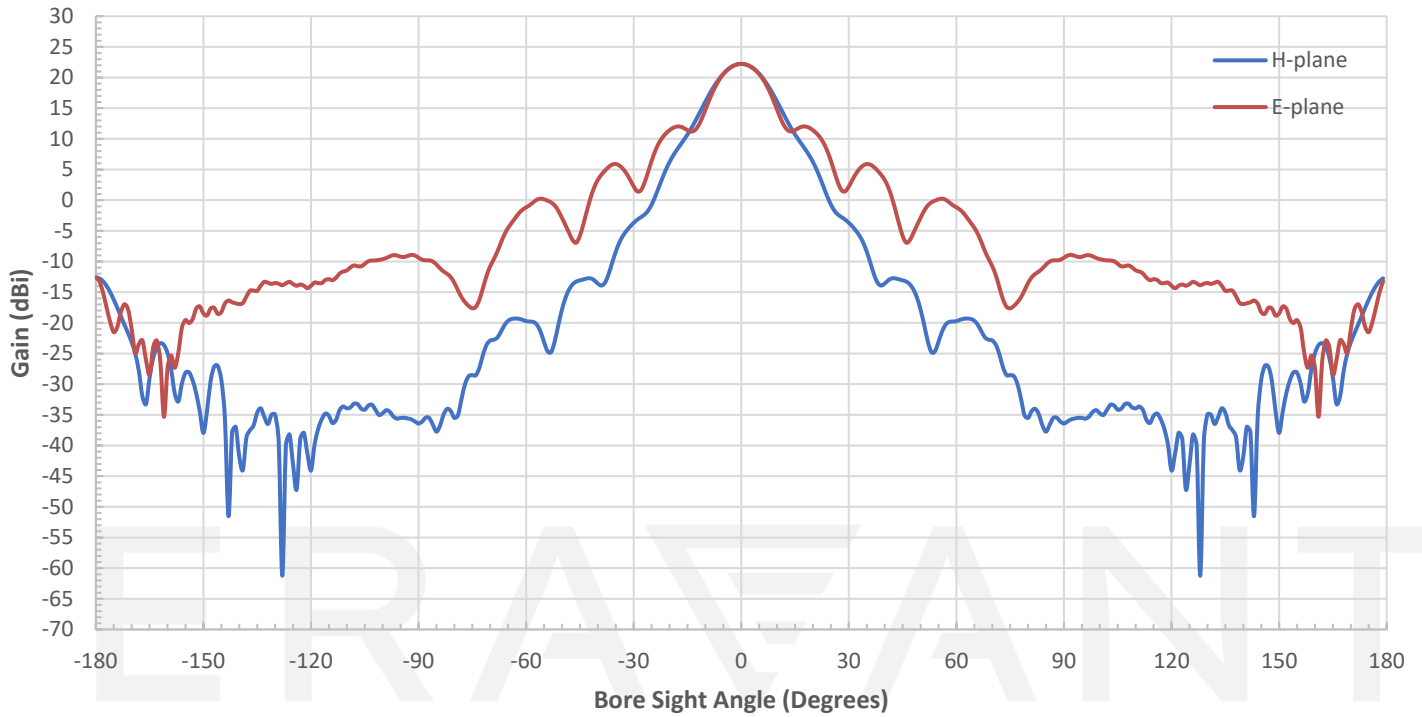
APPLICATIONS

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

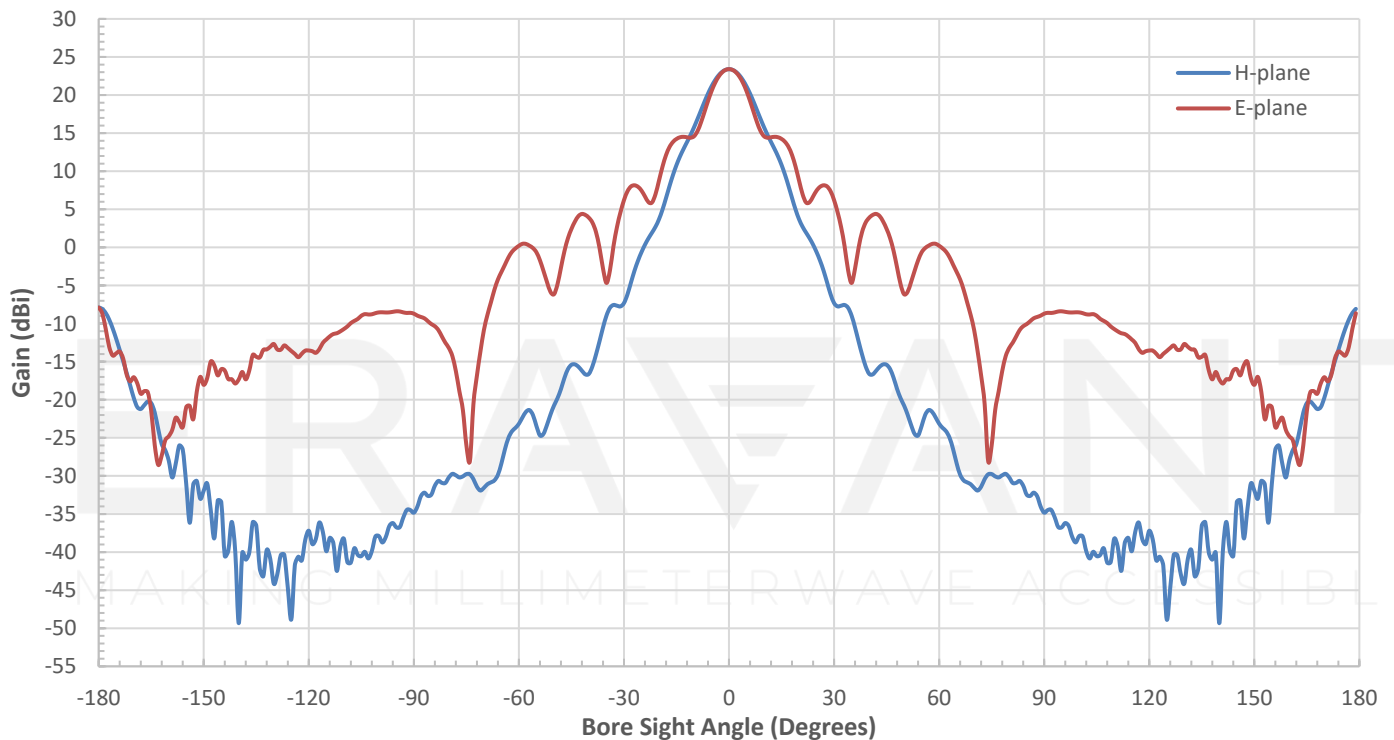
SUPPLEMENTAL DETAILS



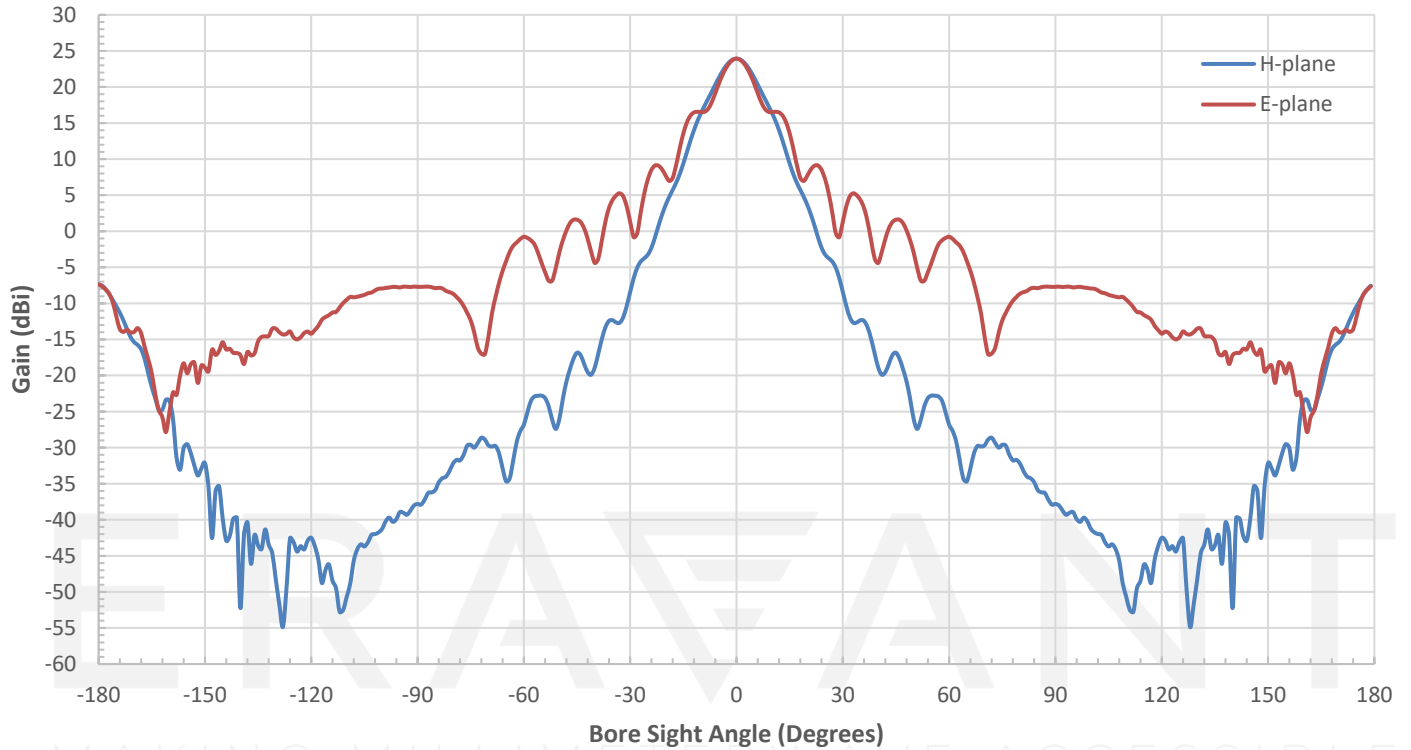
Simulated Antenna Pattern at 220 GHz



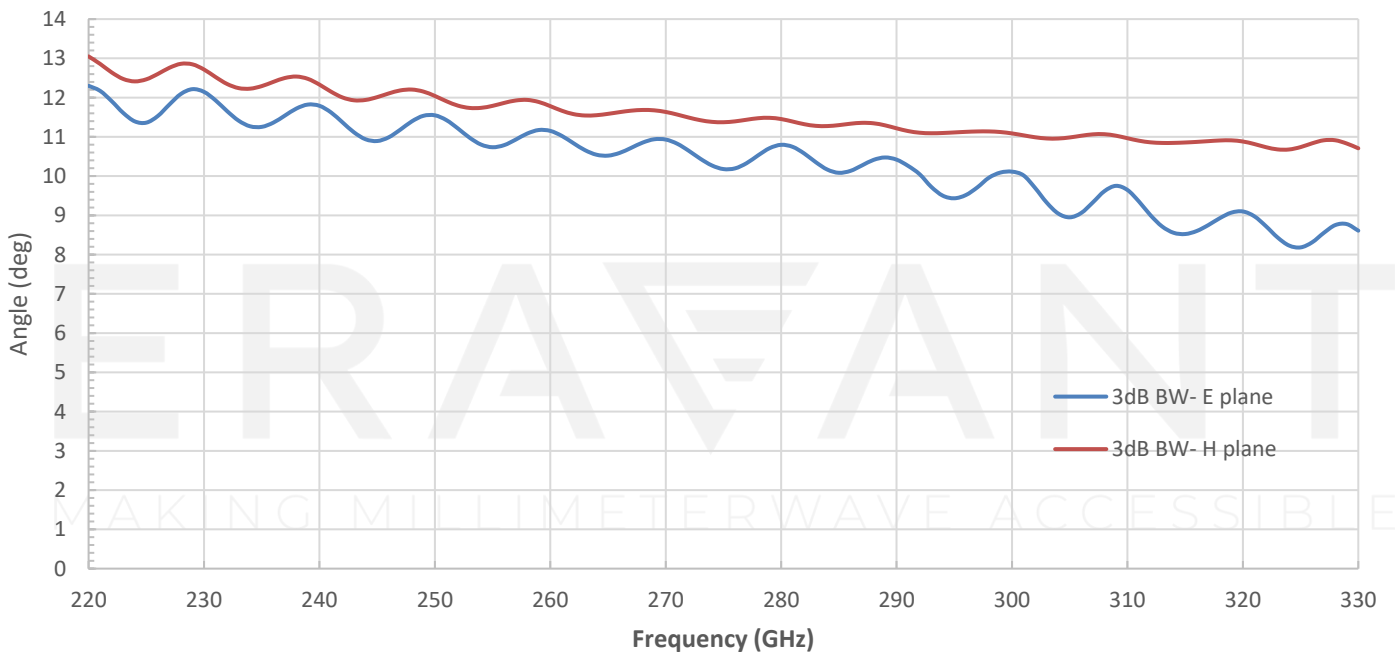
Simulated Antenna Pattern at 275 GHz



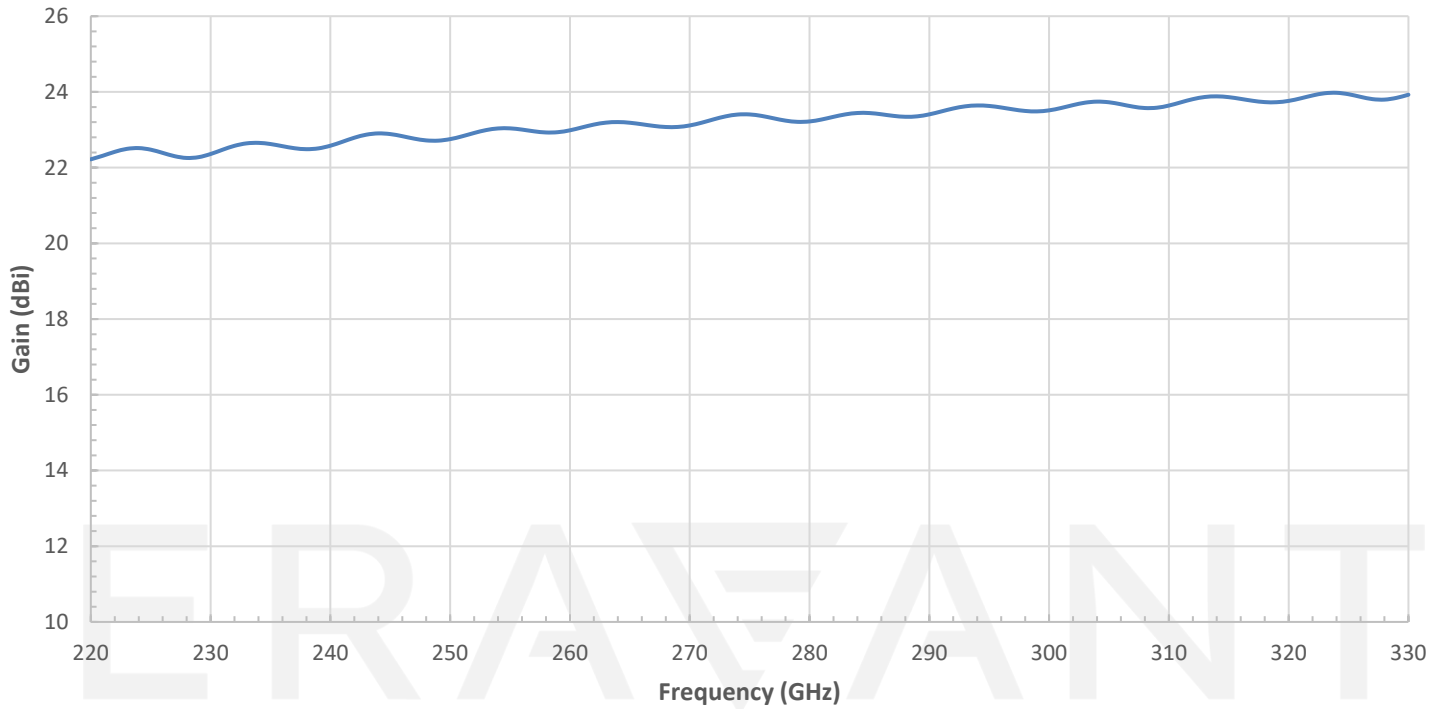
Simulated Antenna Pattern at 330 GHz



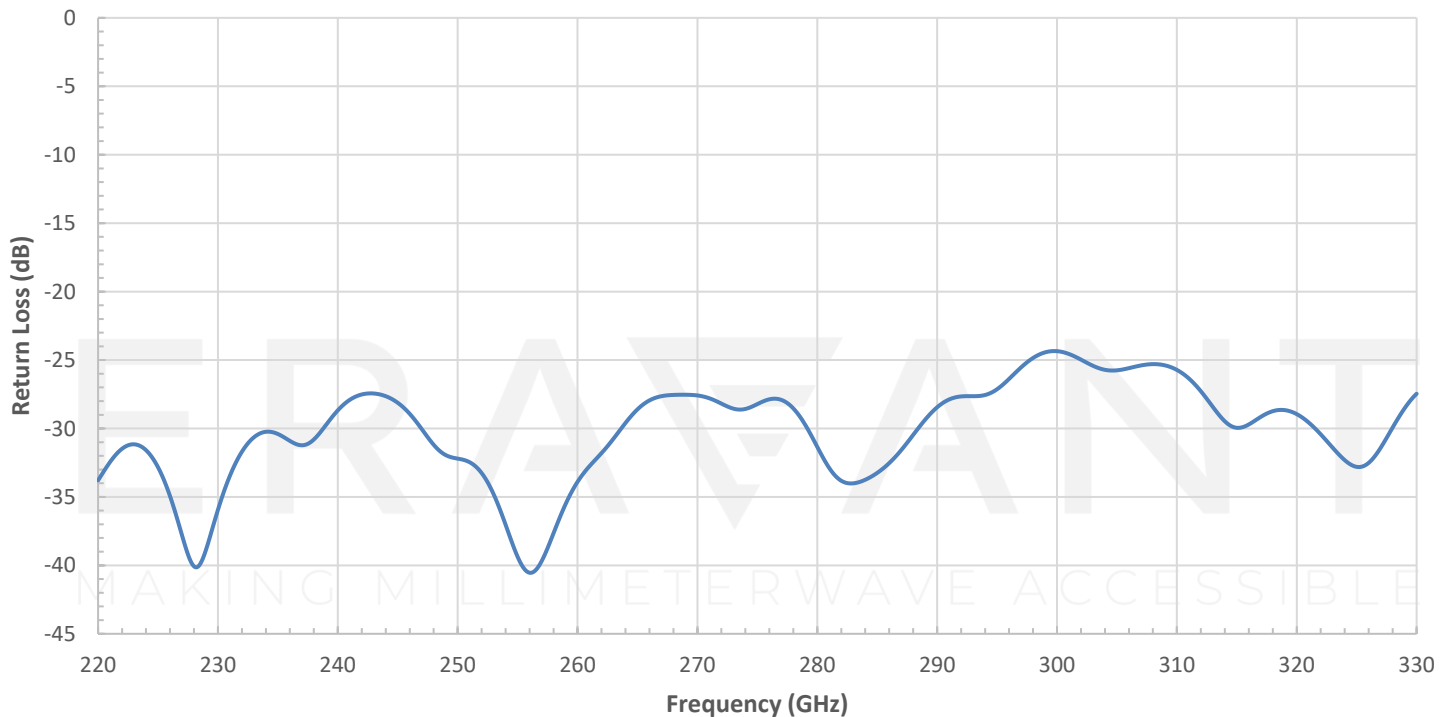
3dB Beamwidth vs Frequency



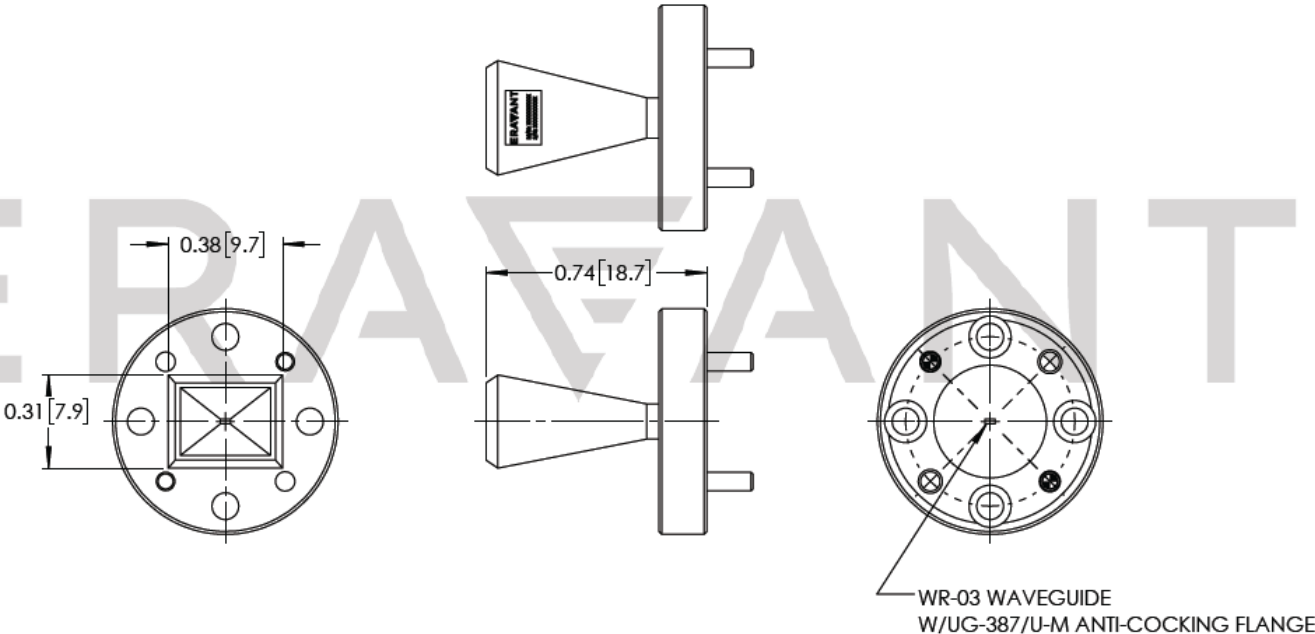
Simulated Gain Vs Frequency



Simulated Return Loss Vs Frequency



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



NOTE:

- On condition that simulated test data is provided, 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.