SAR-2013-04-S2

WR-04 Pyramidal Horn Antenna, 20 dBi Gain

SAR-2013-04-S2 is a WR-04 pyramidal horn antenna that operates from 170 GHz to 260 GHz. The antenna offers 20 dBi nominal gain and a typical half power beamwidth of 16 degrees on the E-plane and 18 degrees on the H-plane. The antenna supports linear polarized waveforms. The input of this antenna is a WR-04 waveguide with UG-387/U-M flange.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	170 GHz		260 GHz
Gain		20 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		16°	
3 dB Beamwidth, H-Plane		18°	
Sidelobes, E-Plane		-12 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-04 Waveguide
Flange Type	UG-387/U-M Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Outline	AR-041-A-2

ECCN

EAR99

FEATURES

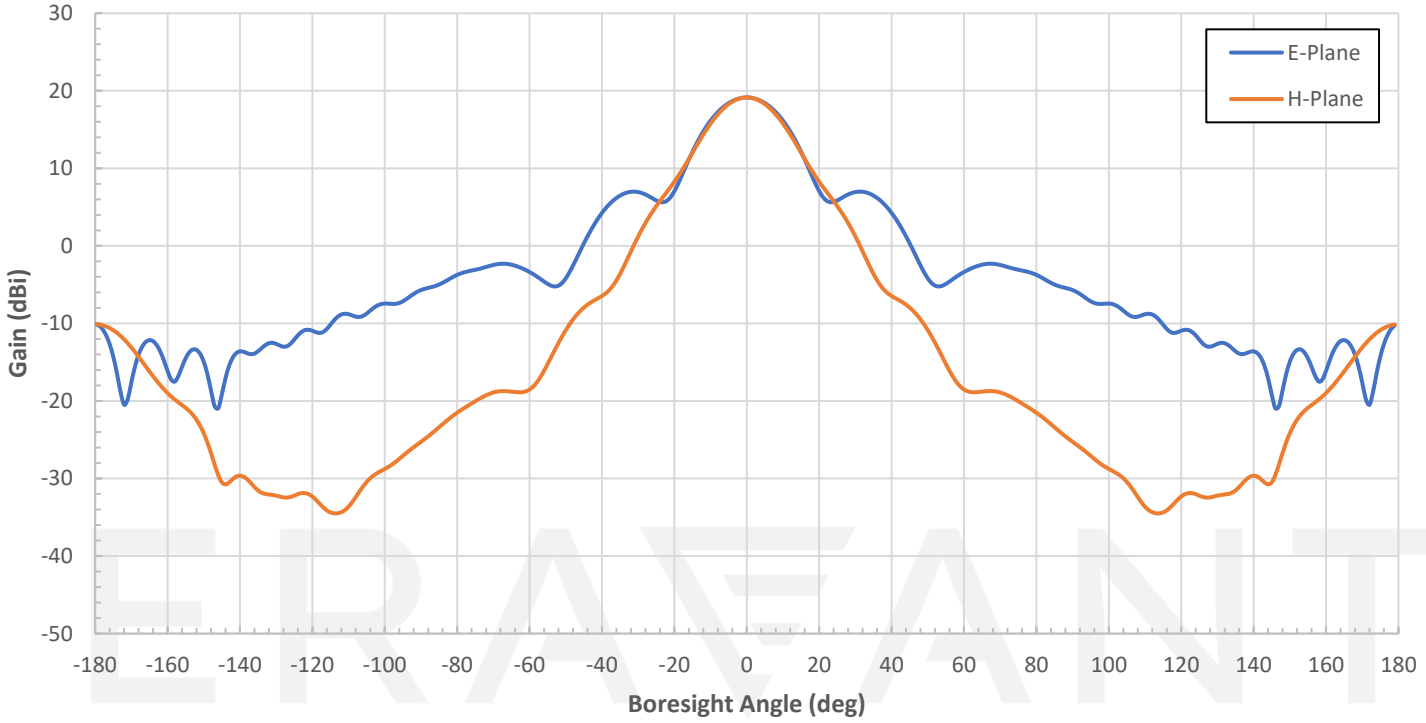
- Rectangular Waveguide Interface
- Precisely Machined and Gold Plated
- Linear Polarization

APPLICATIONS

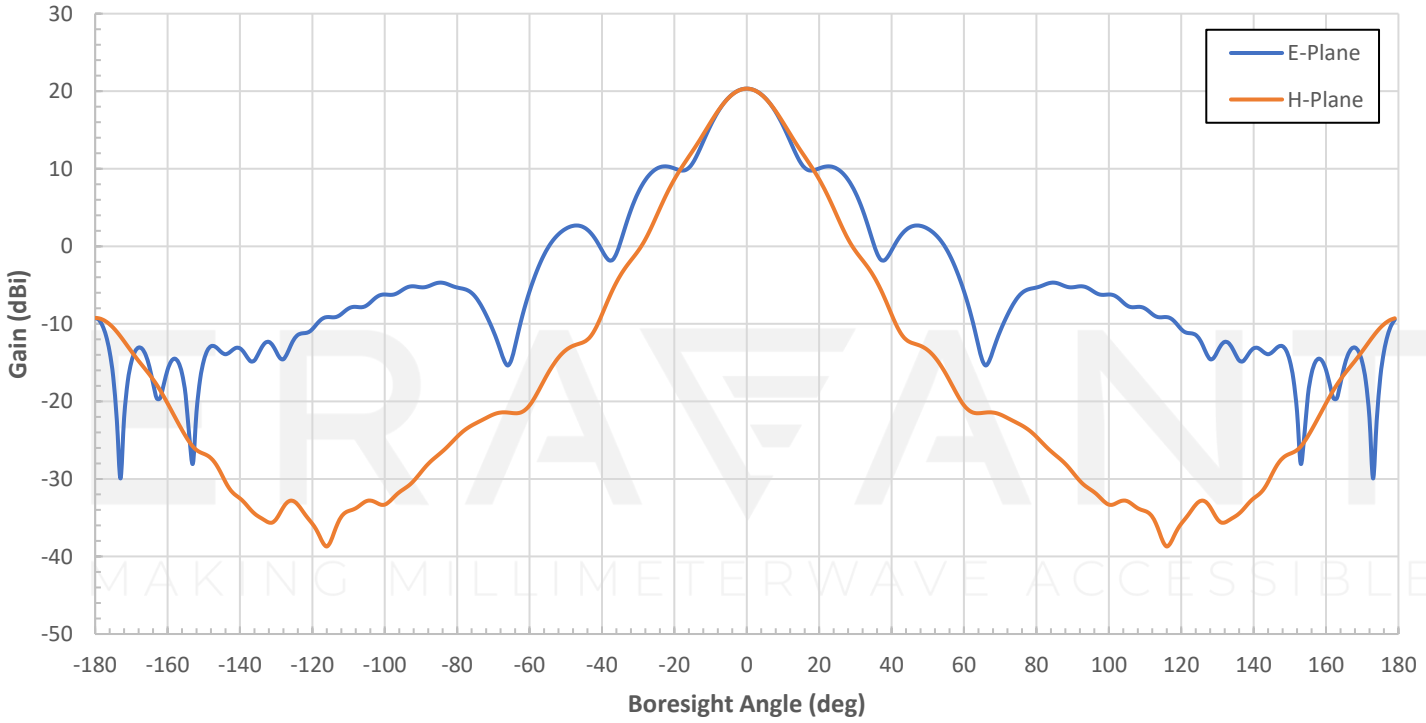
- Antenna Ranges
- Antenna Gain Measurements
- System Setups

SUPPLEMENTAL DETAILS

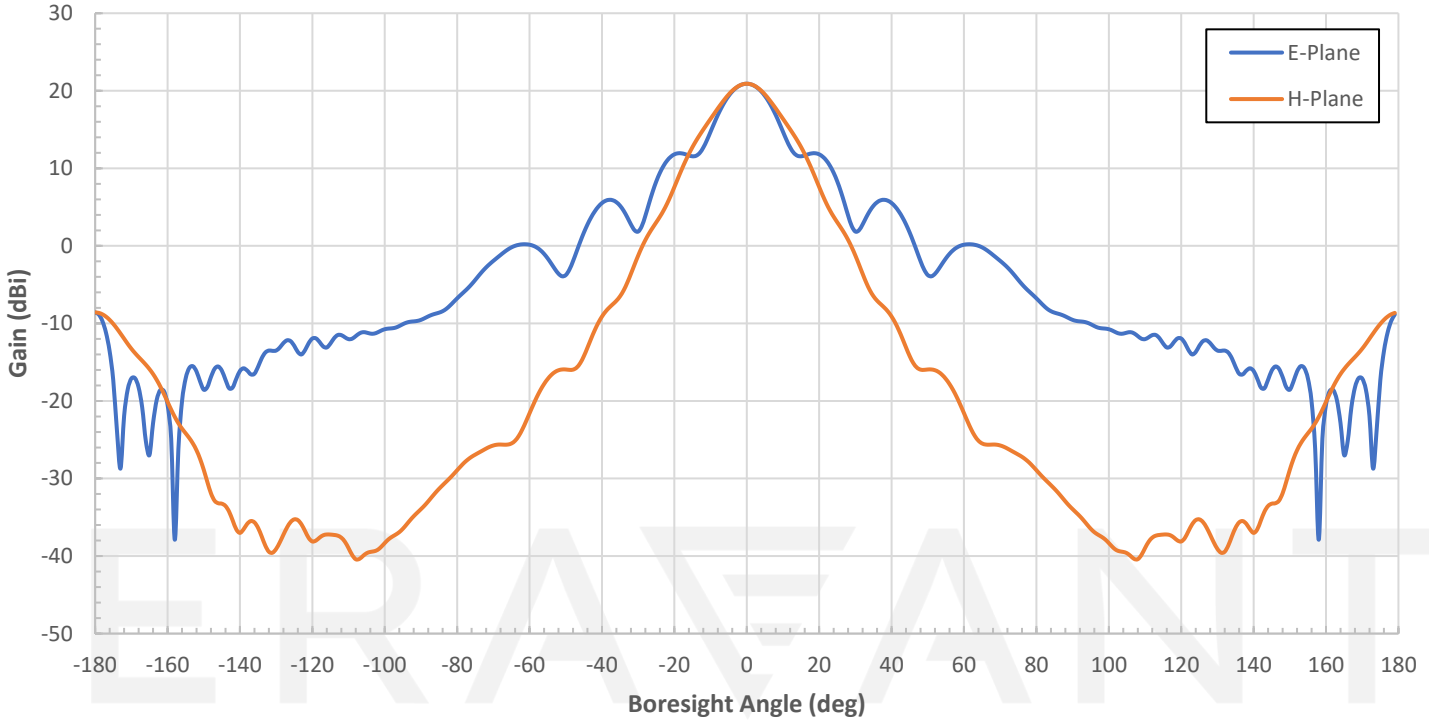
Simulated Antenna Patterns @ 170 GHz



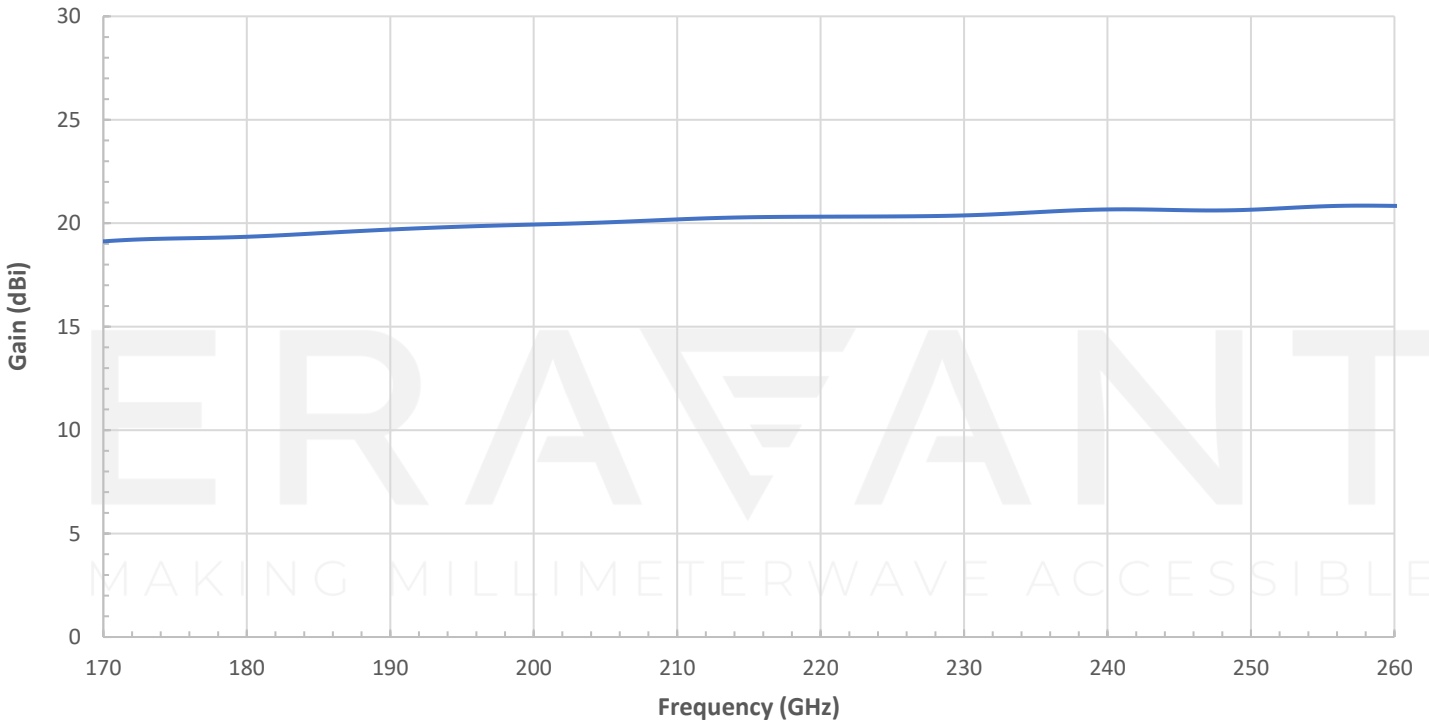
Simulated Antenna Patterns @ 215 GHz



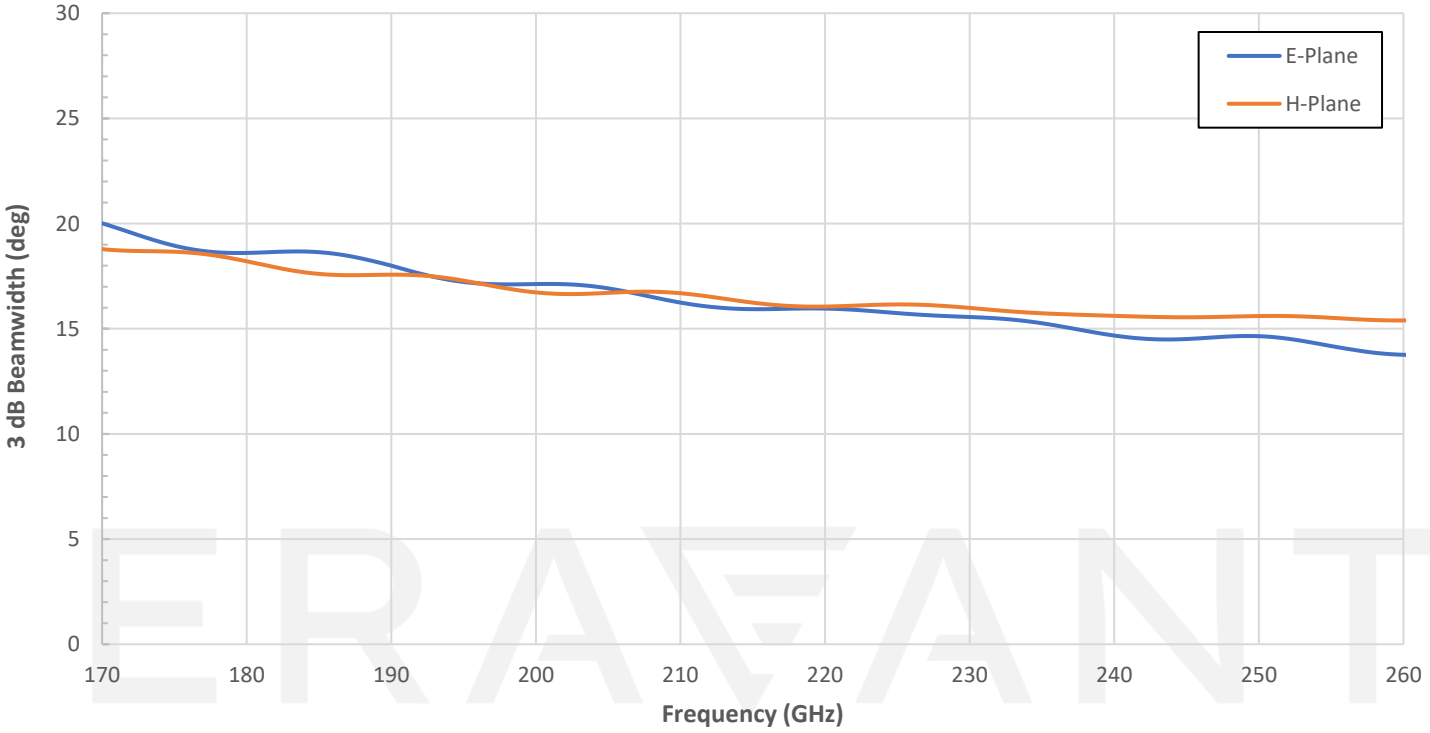
Simulated Antenna Patterns @ 260 GHz



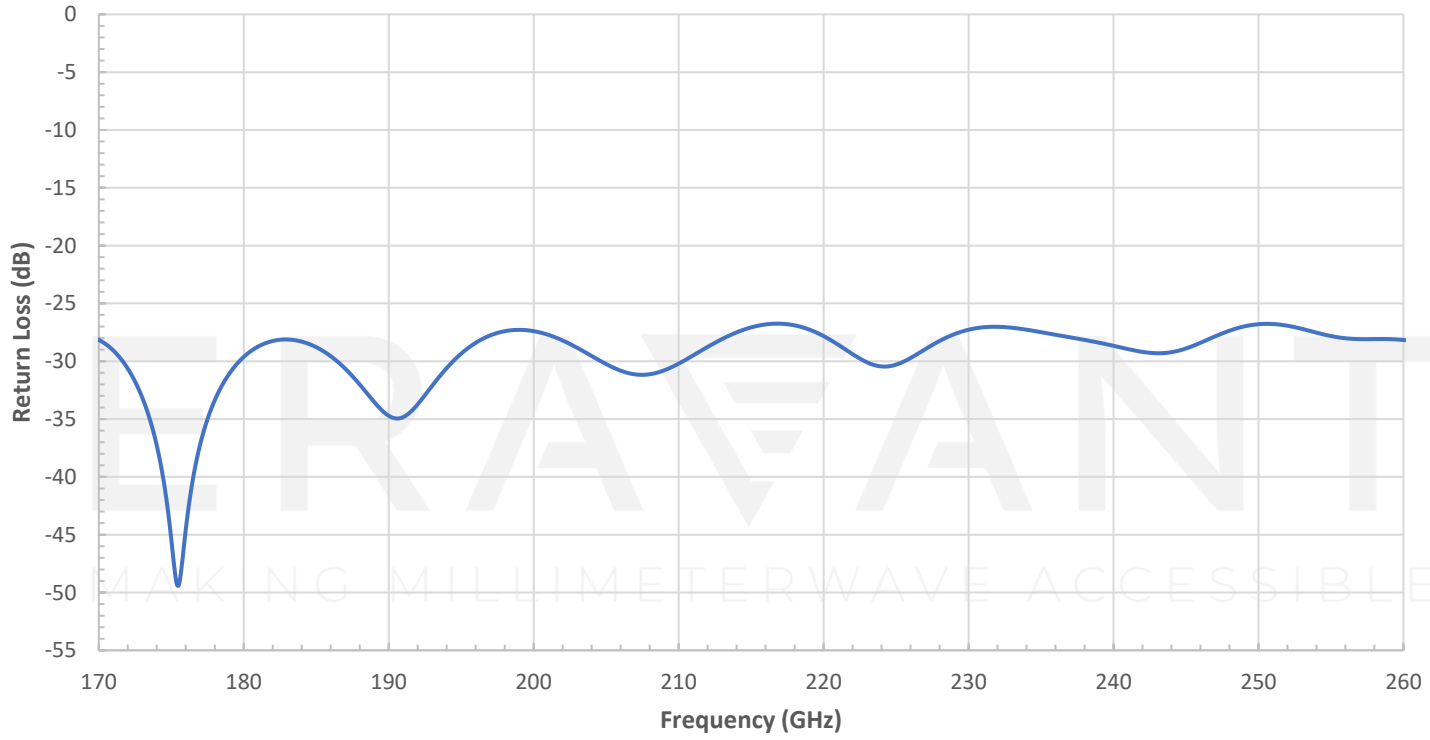
Simulated Gain vs Frequency



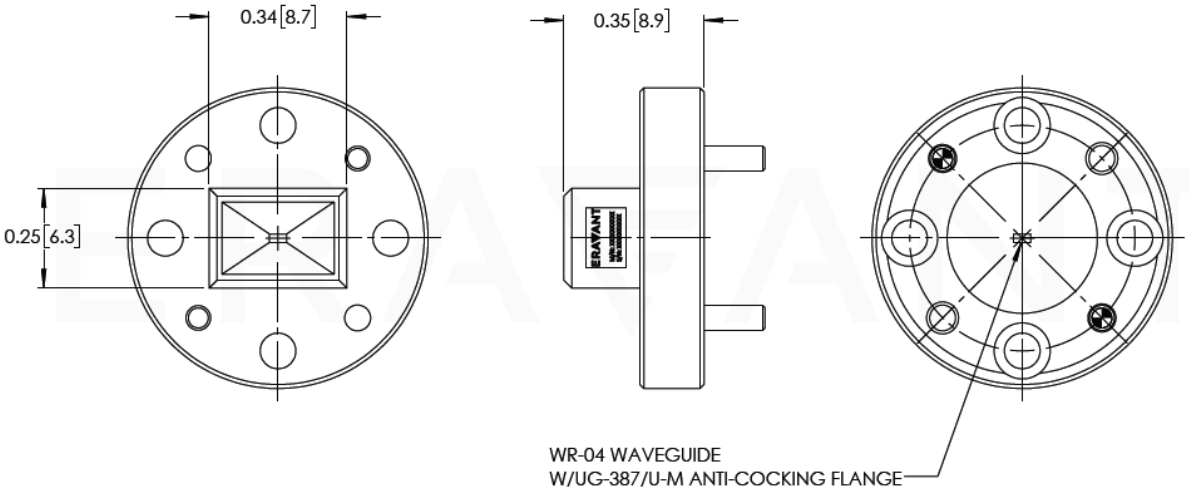
Simulated 3 dB Beamwidth vs Frequency



Simulated Return Loss vs Frequency



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



NOTE:

- All data provided is simulated. Actual measured data may slightly vary.
- 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 antenna will cause performance degradation and possible device damage.