

SAC-2507-059-S2-WP

G Band Conical Horn Antenna, 25 dBi Gain

SAC-2507-059-S2-WP is a G-band conical horn antenna that operates from 140 to 220 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 horn also offers typical sidelobes of -18 dB on the E-plane and -28 dB on the H-plane. The conical horn can support linear and circular polarization. The input of this antenna is a 0.059" diameter circular waveguide with UG-387/U-M anti-cocking flange.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	140 GHz		220 GHz
Gain		25 dBi	
3 dB Beamwidth, E-plane		9°	
3 dB Beamwidth, H-plane		10°	
Side Lobes, E-plane		-18 dB	
Side Lobes, H-plane		-28 dB	
Cross-polarization**		20 dB	
Return Loss		23 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

****Actual measured cross-polarization level shall be around 40dB 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	0.059" Diameter Circular Waveguide
Flange Type	UG-387/U-M Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Outline	AC-CG3-059-A

ECCN

EAR99

FEATURES

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

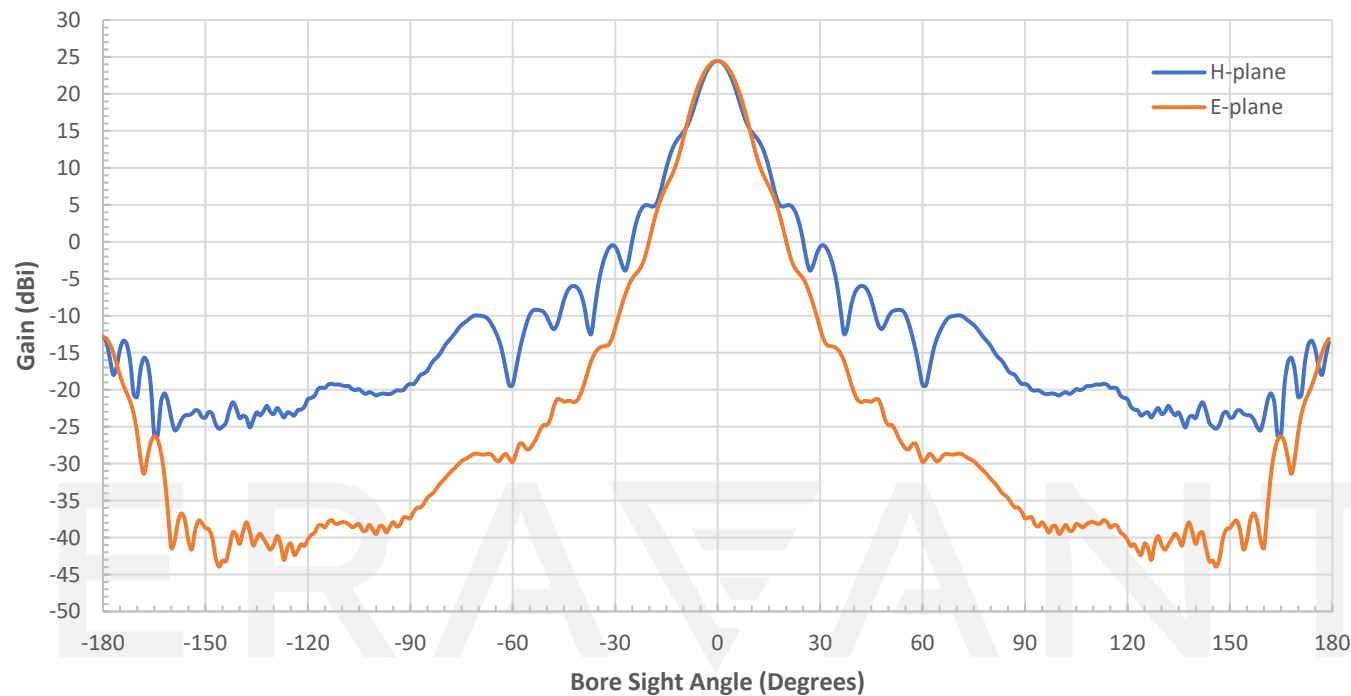
APPLICATIONS

- Antenna Ranges
- Feed Horn
- System Setups

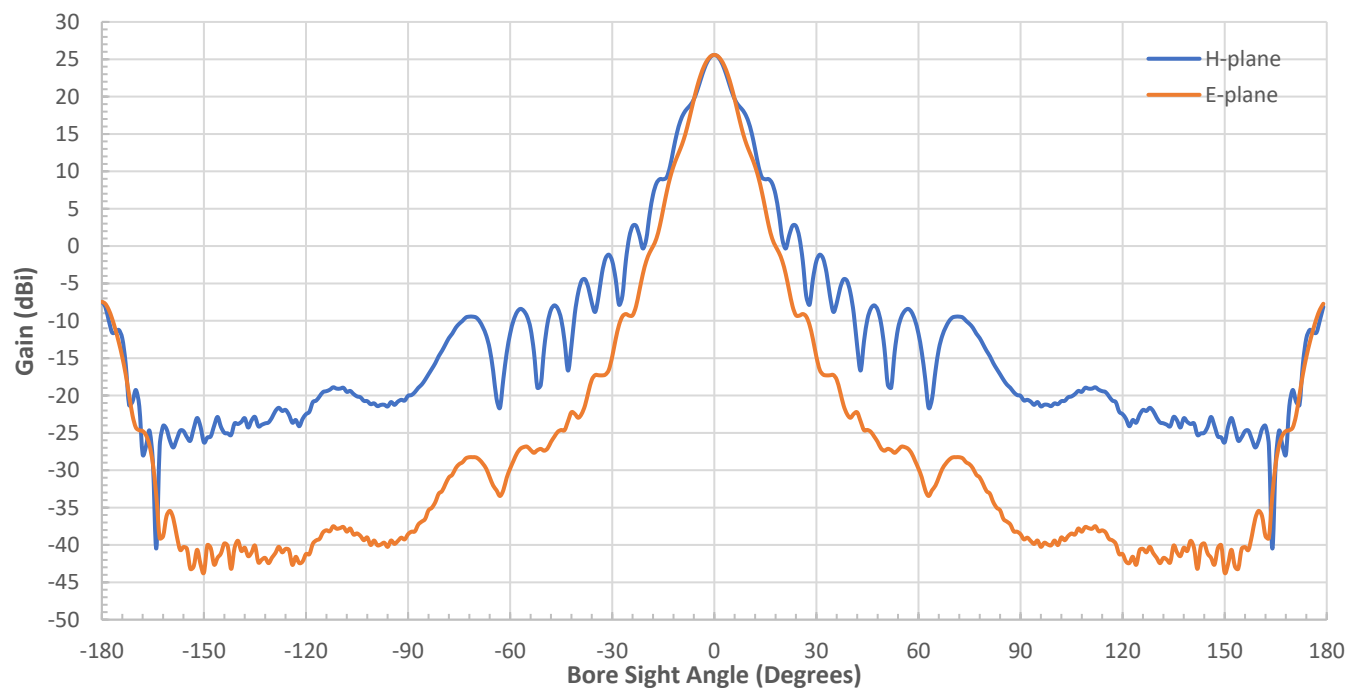
SUPPLEMENTAL DETAILS



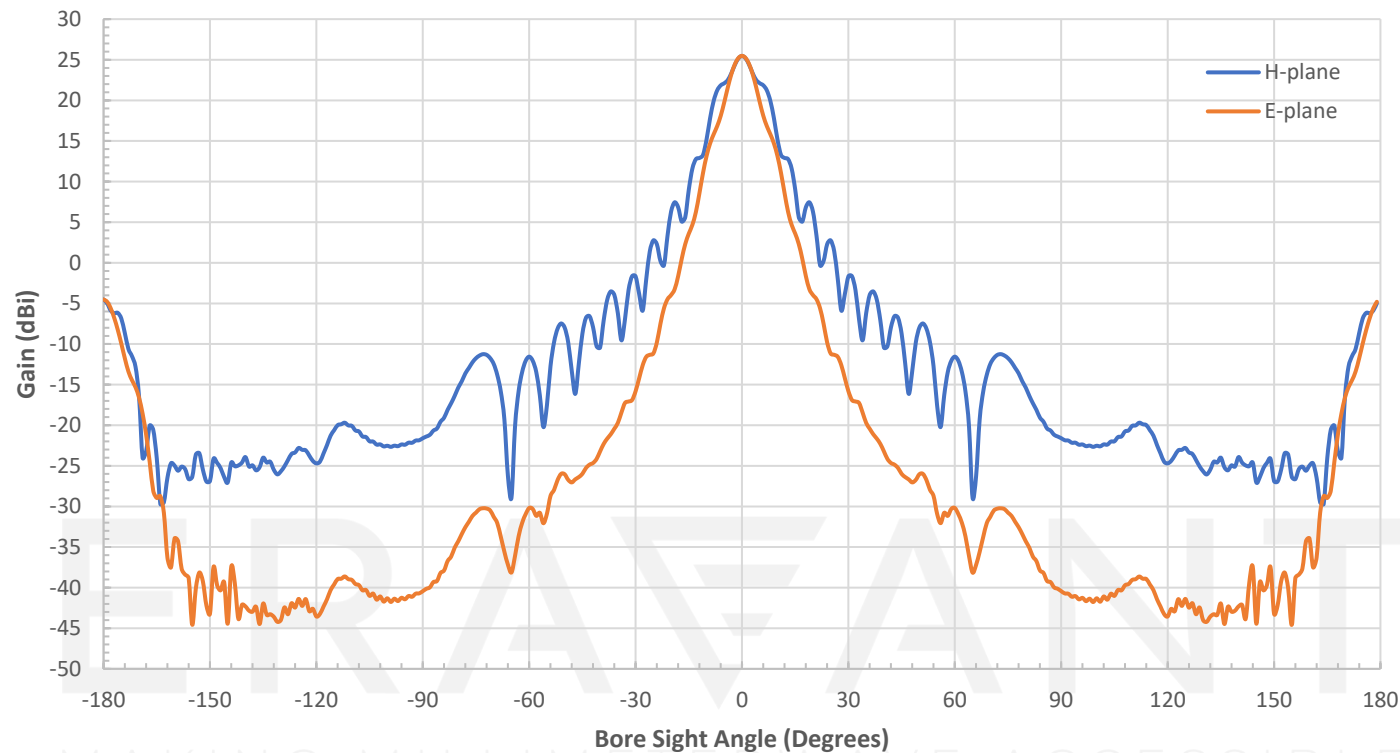
Simulated Antenna Pattern at 140 GHz



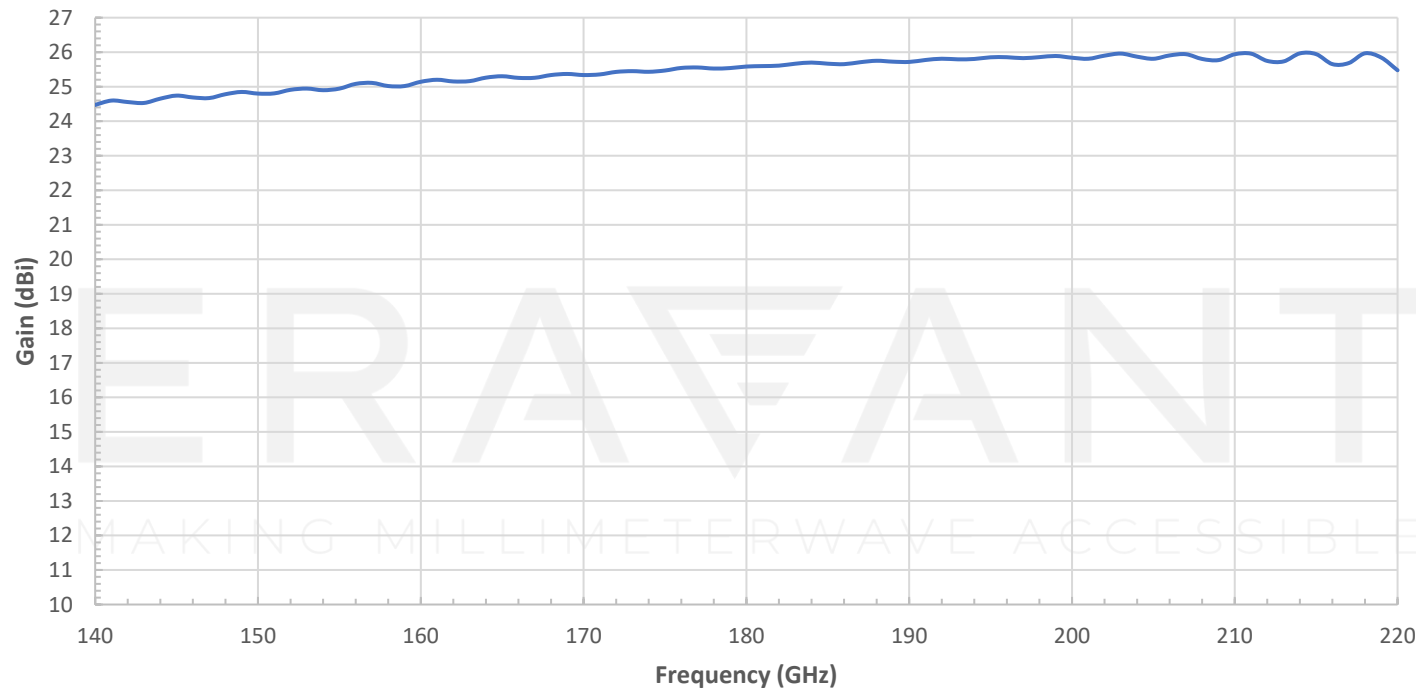
Simulated Antenna Pattern at 180 GHz



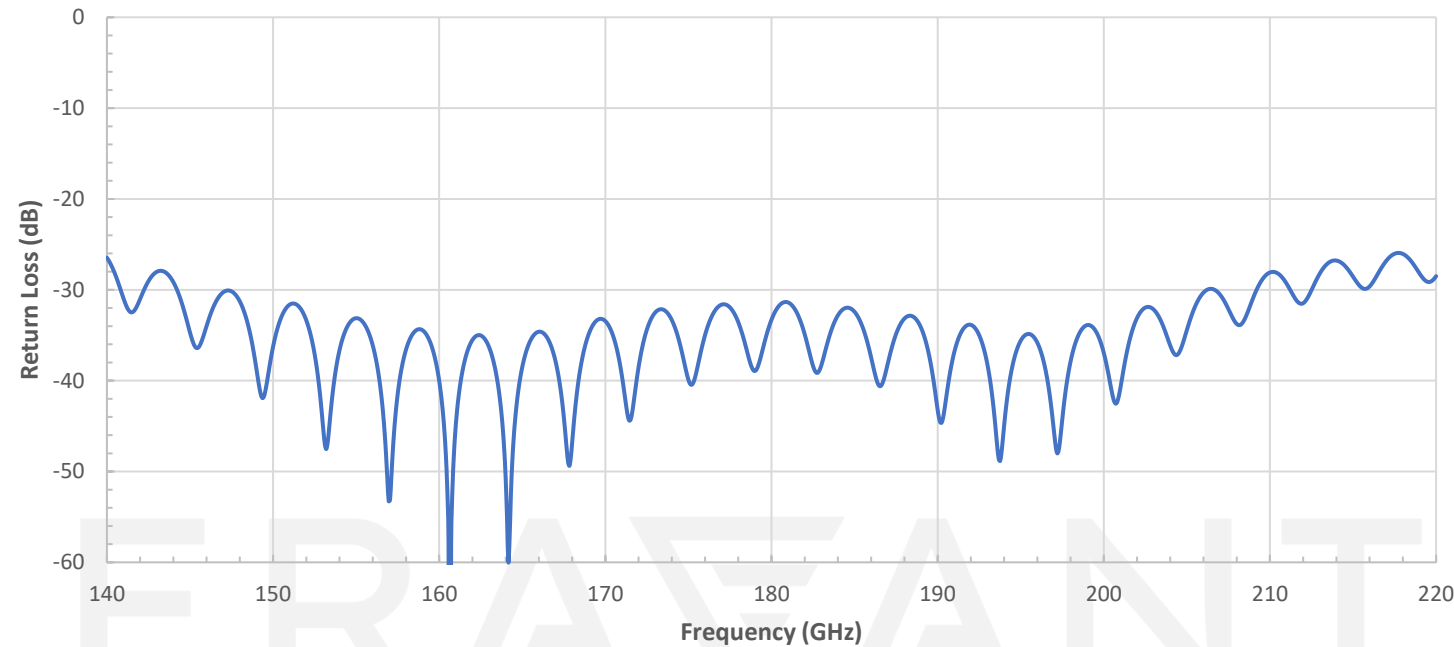
Simulated Antenna Pattern at 220 GHz



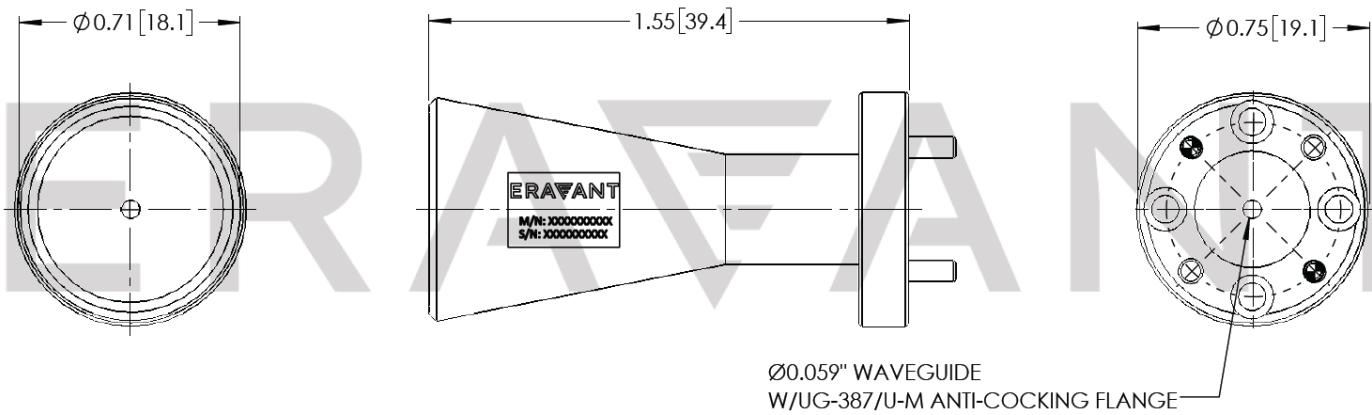
Simulated Gain Vs Frequency



Simulated Return Loss Vs Frequency



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



NOTE:

- Data provided 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.