SAC-2507-188-S2

U Band Conical Horn Antenna, 25 dBi Gain

SAC-2507-188-S2 is a U-band conical horn antenna that operates from 43 to 50 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 0.188” diameter circular waveguide with UG-383/U-M anti-cocking flange.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range*	43 GHz		50 GHz
Gain		25 dBi	
3 dB Beamwidth, E-plane		9°	
3 dB Beamwidth, H-plane		10°	
Sidelobes, E-plane		-18 dB	
Sidelobes, H-plane		-28 dB	
Return Loss		23 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

*Note: Can operate from 40 to 60 GHz if the dominant mode is maintained.

Mechanical Specifications:

Item	Specification
Antenna Port	0.188" Diameter Circular Waveguide
Flange Type	UG-383/U-M Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Weight	1.9 Oz
Size	4.80” (L) X 2.03” (Ø)
Outline	AC-CU3-188-A

ECCN

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FEATURES

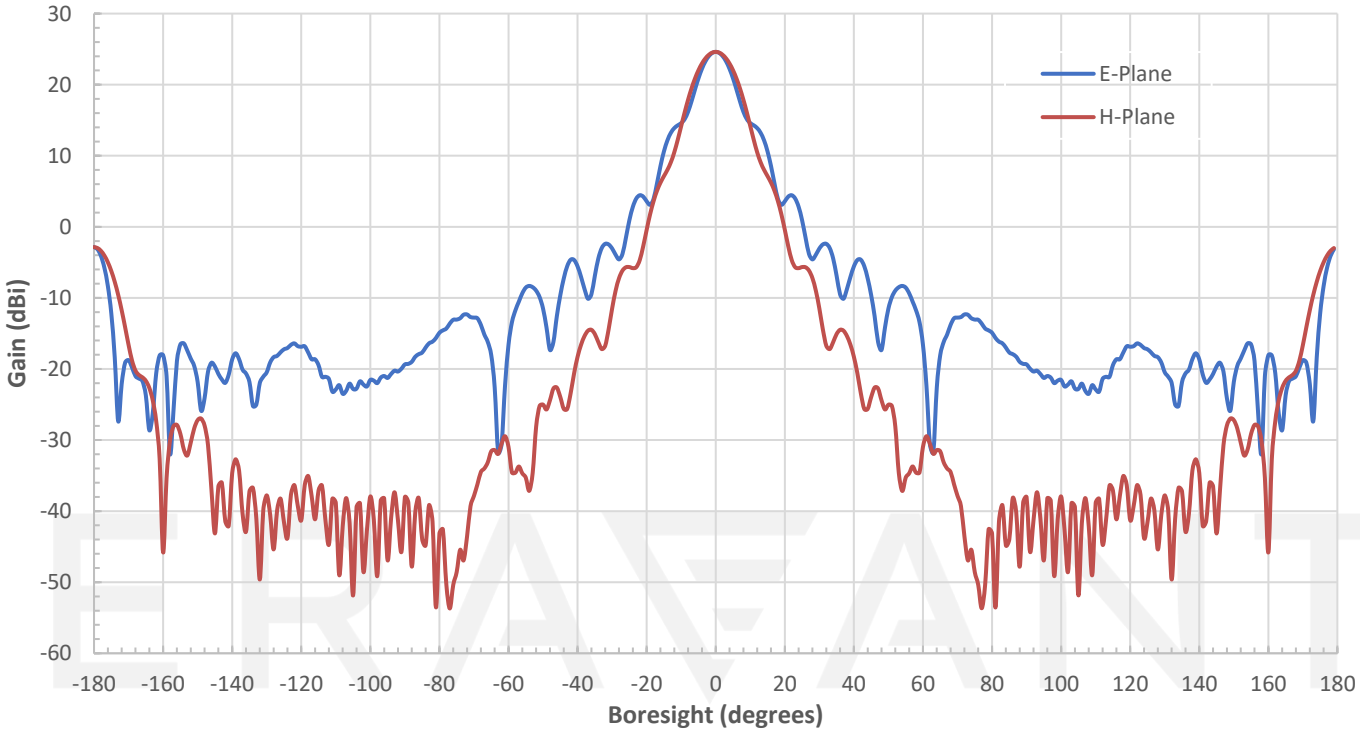
- Circular Waveguide Interface
- Precisely Machined and Gold Plated
- High Return Loss
- Linear and Circular Polarization

APPLICATIONS

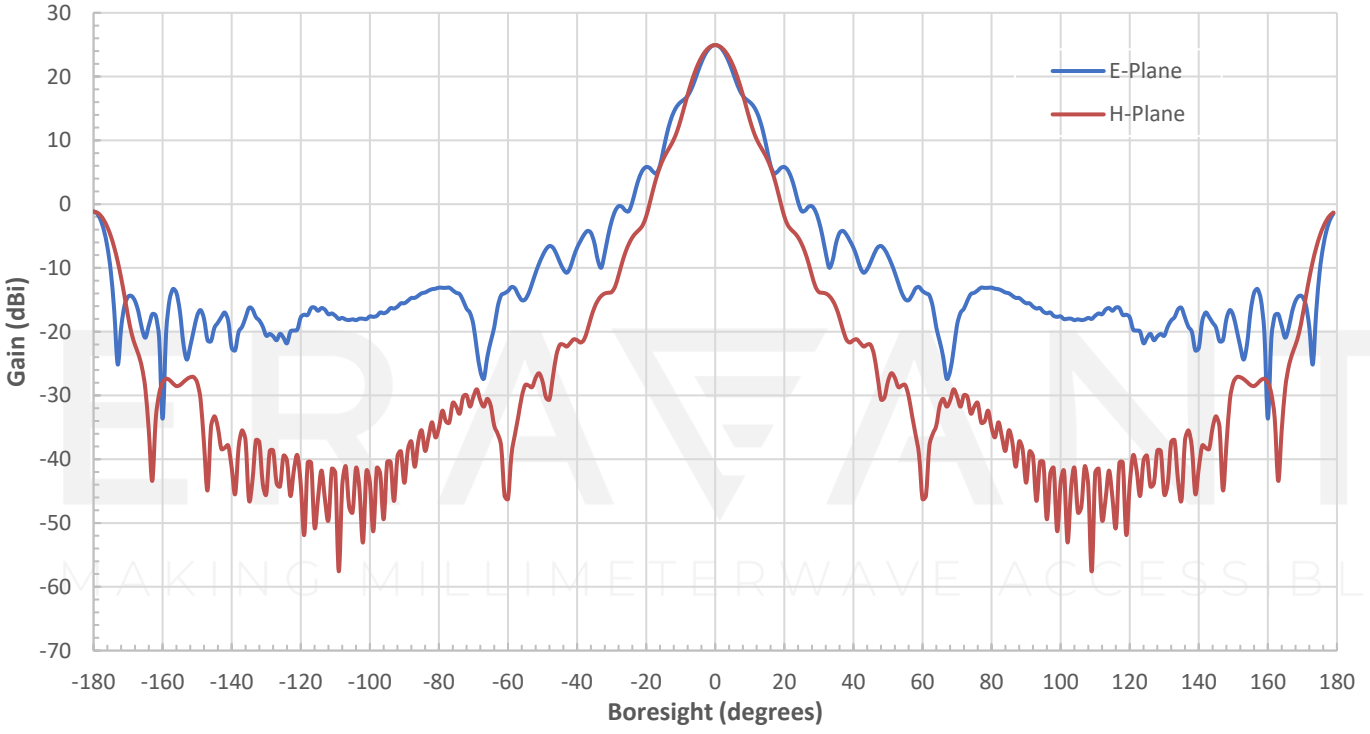
- Antenna Ranges
- Feed Horns
- System Setups

SUPPLEMENTAL DETAILS

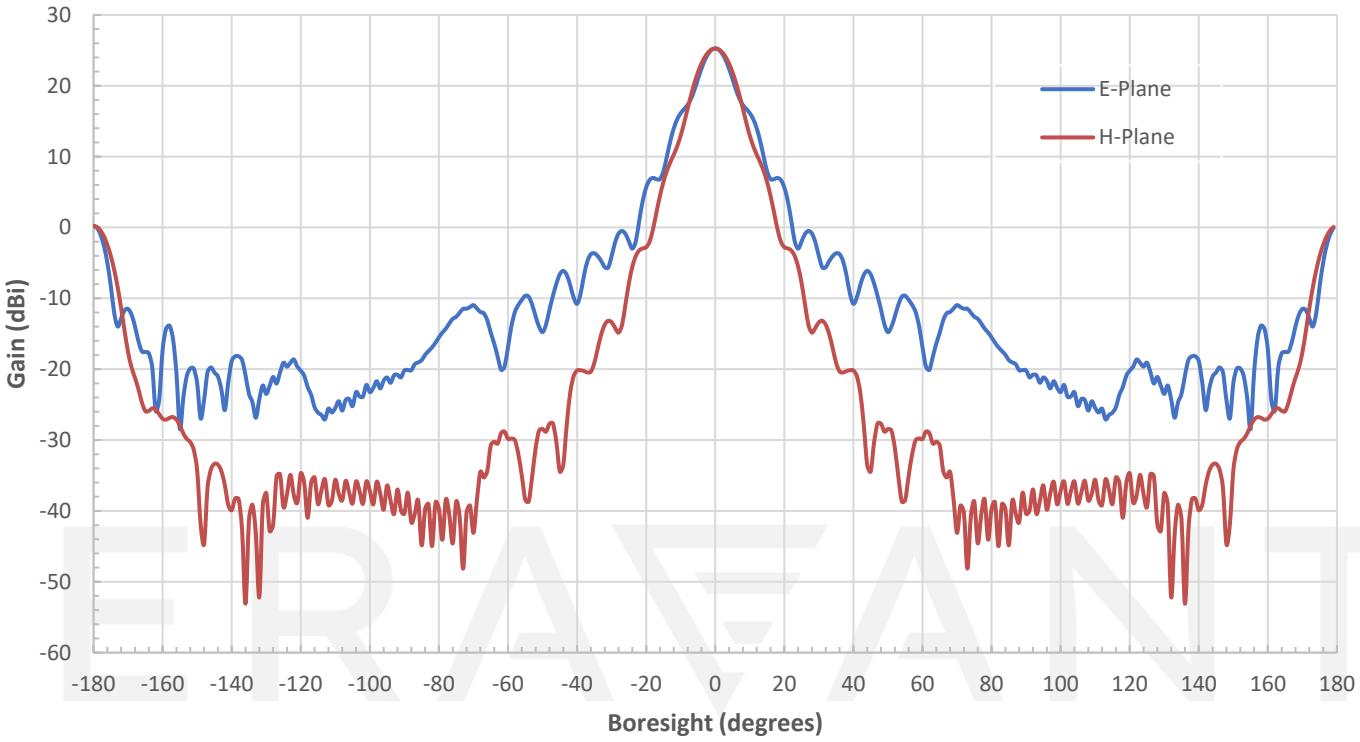
Simulated Antenna Patterns @ 43 GHz



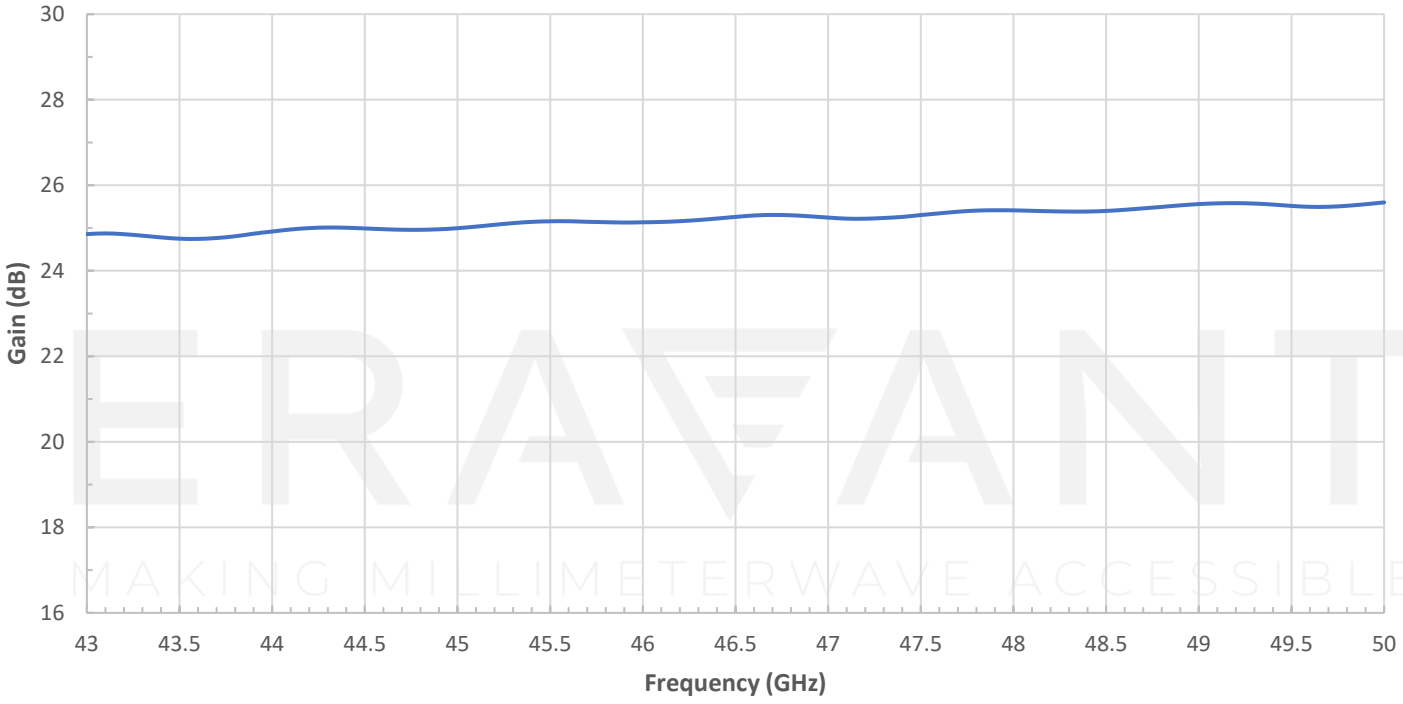
Simulated Antenna Patterns @ 46.5 GHz



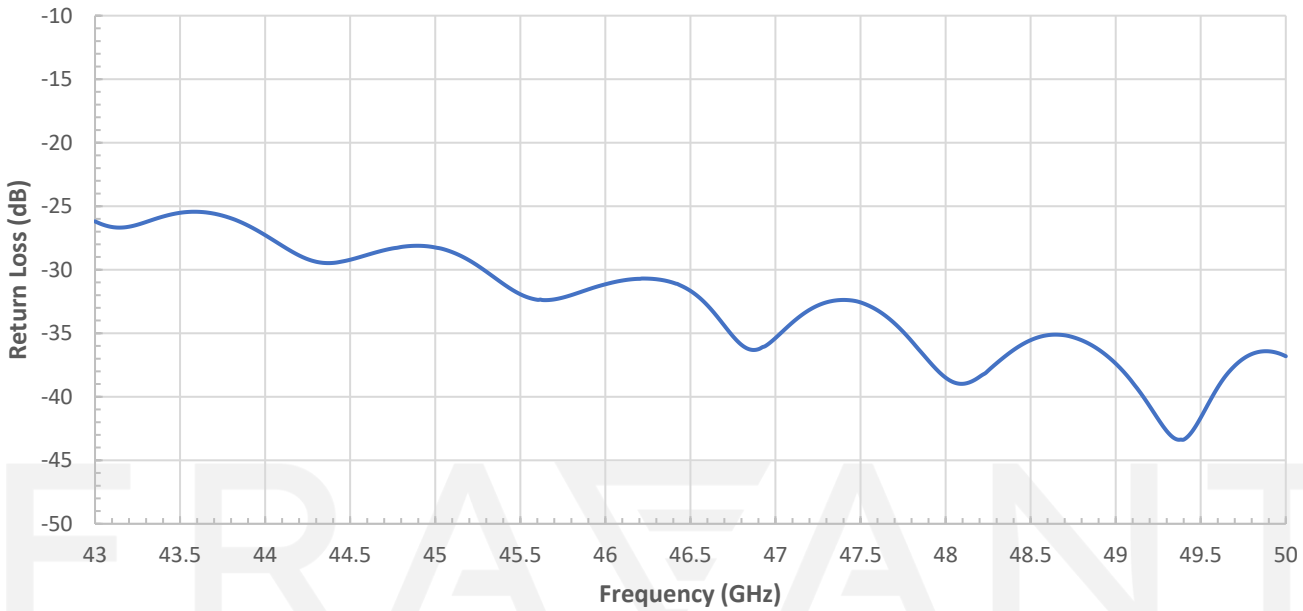
Simulated Antenna Patterns @ 50 GHz



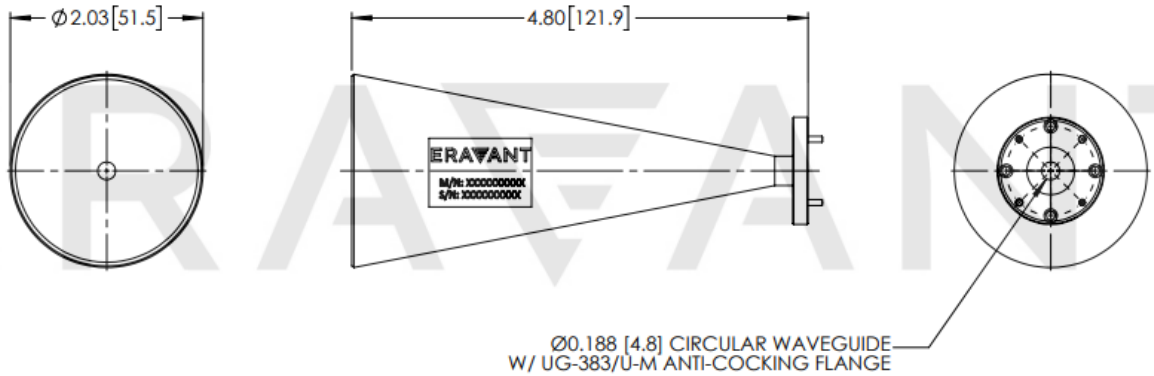
Simulated Gain vs. Frequency



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.
- 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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