

SAC-2507-12-S2

E Band Conical Horn Antenna, 25 dBi Gain, WR-12 Waveguide

SAC-2507-12-S2 is an E-band conical horn antenna with a WR-12 rectangular waveguide interface that operates from 68 to 77 GHz. The antenna offers 25 dB 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 polarization. The RF connector of this antenna is a WR-12 waveguide with UG-387/U anti-cocking flange.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency*	68 GHz		77 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 63 to 90 GHz if the dominant mode is maintained.

Mechanical Specifications:

Item	Specification
Antenna Port	WR-12 Waveguide
Flange Type	UG-387/U Anti-Cocking Flange
Material	Brass
Finish	Gold Plated
Weight	0.80 Oz
Size	3.20" (L) X 1.34" (Ø)
Outline	AC-RE3-125-A

FEATURES

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

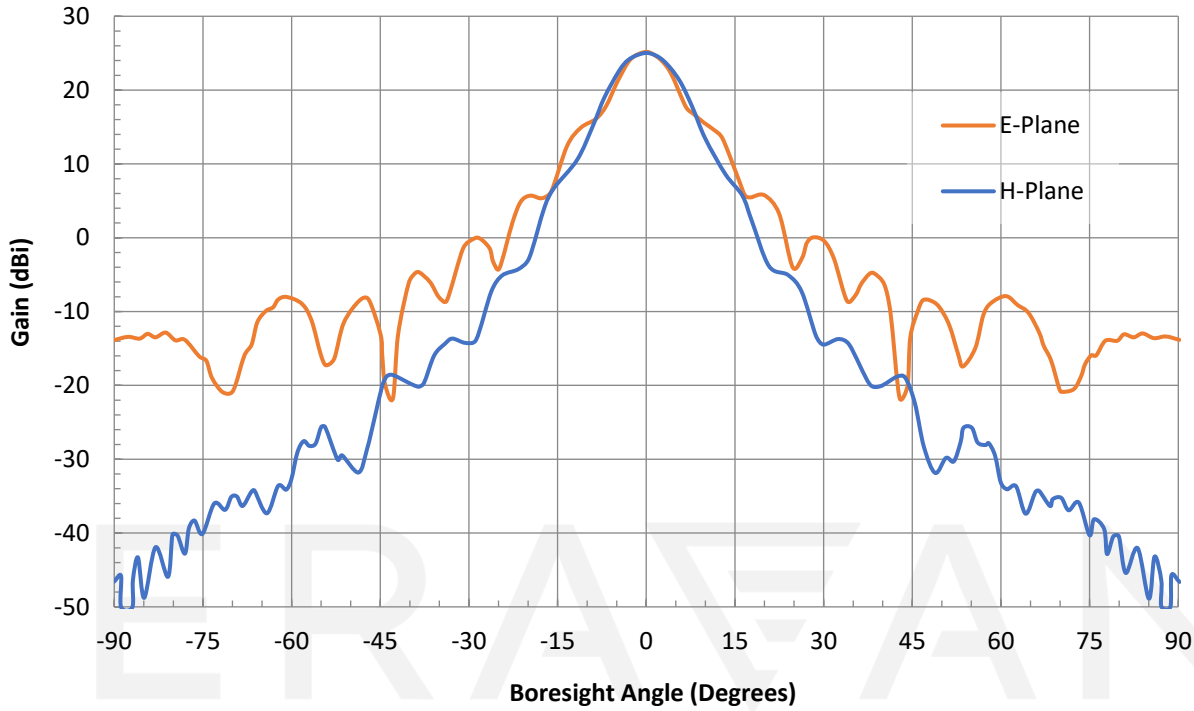
APPLICATIONS

- Antenna Ranges
- Feed Horns
- System Setups

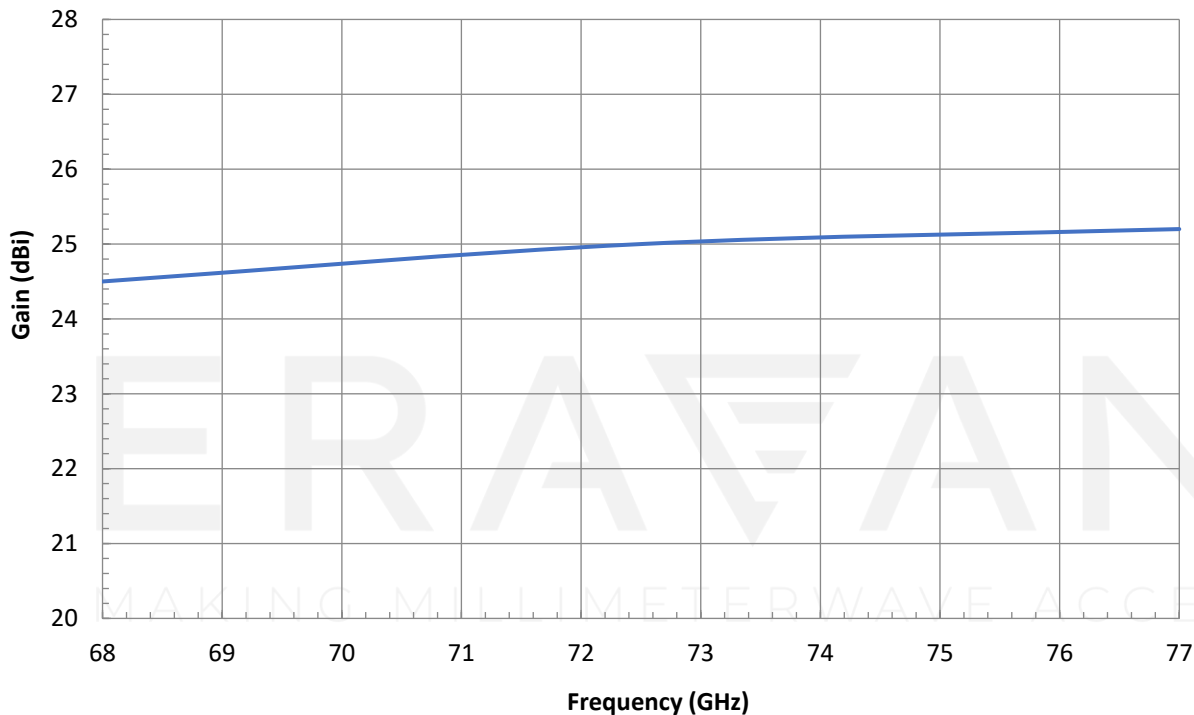


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Typical Antenna Pattern @ 72.5 GHz

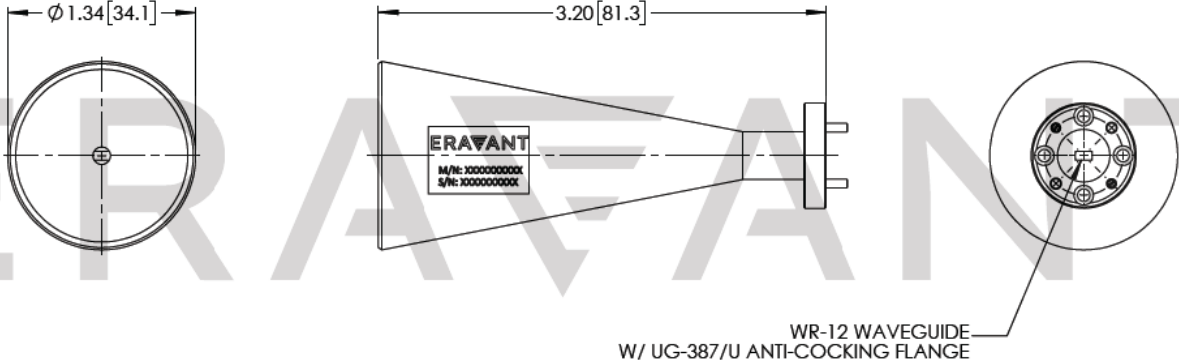


Typical Gain vs. Frequency



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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:

- Any foreign objects in the waveguide will cause performance degradation and may damage the device.