

F-Band Omnidirectional Antenna, 360 Degrees, 3 dBi Gain

SAO-9031440345-08-S1 is a full band, WR-08 omnidirectional antenna that operates between 90 and 140 GHz. This vertically polarized antenna offers 360 degrees azimuth coverage with a 3 dBi typical gain and ± 3 dB angular gain flatness. The antenna features a half power beamwidth of 30 degrees in the vertical direction. The input port of the antenna is equipped with a WR-08 waveguide with UG-387/U-M anti-cocking flange.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	90 GHz		140 GHz
Gain		3 dBi	
Gain Variation		± 3 dB	
Azimuth Beamwidth		360°	
3 dB Beamwidth, Vertical		30°	
Return Loss		8 dB	
Power Handling		50 W (CW)	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Antenna Ports	WR-08 Waveguide with UG-387/U-M Anti-Cocking Flange
Material	Aluminum
Radome Material	HDPE
Finish	Gold Plated
Weight	0.2 Oz
Outline	AO-F03-045-A

ECCN

EAR99

FEATURES

- Full Waveguide Band Operation
- 360° Azimuth Coverage
- 30° Vertical 3 dB Beamwidth
- Vertically Polarized
- Compact and Light Weight

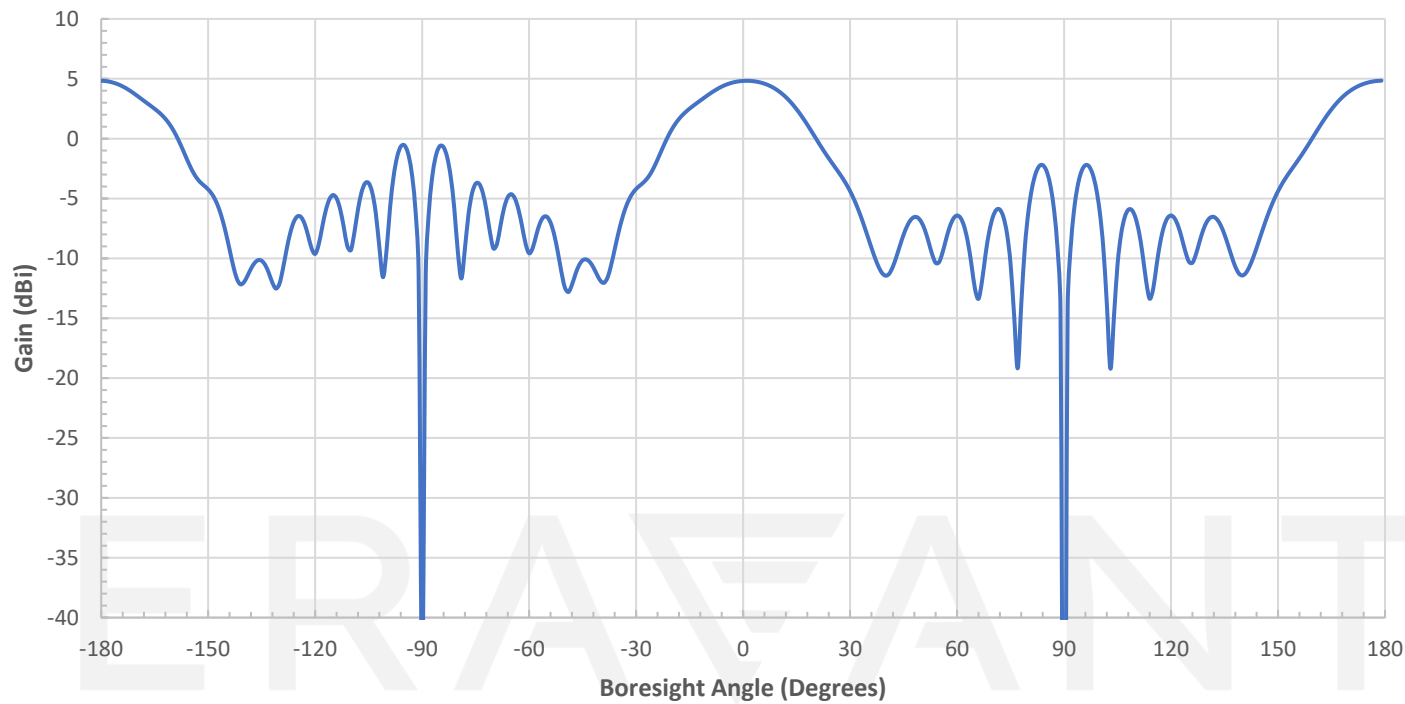
APPLICATIONS

- Communication Links
- EW Systems
- Indoor Local Area Networks

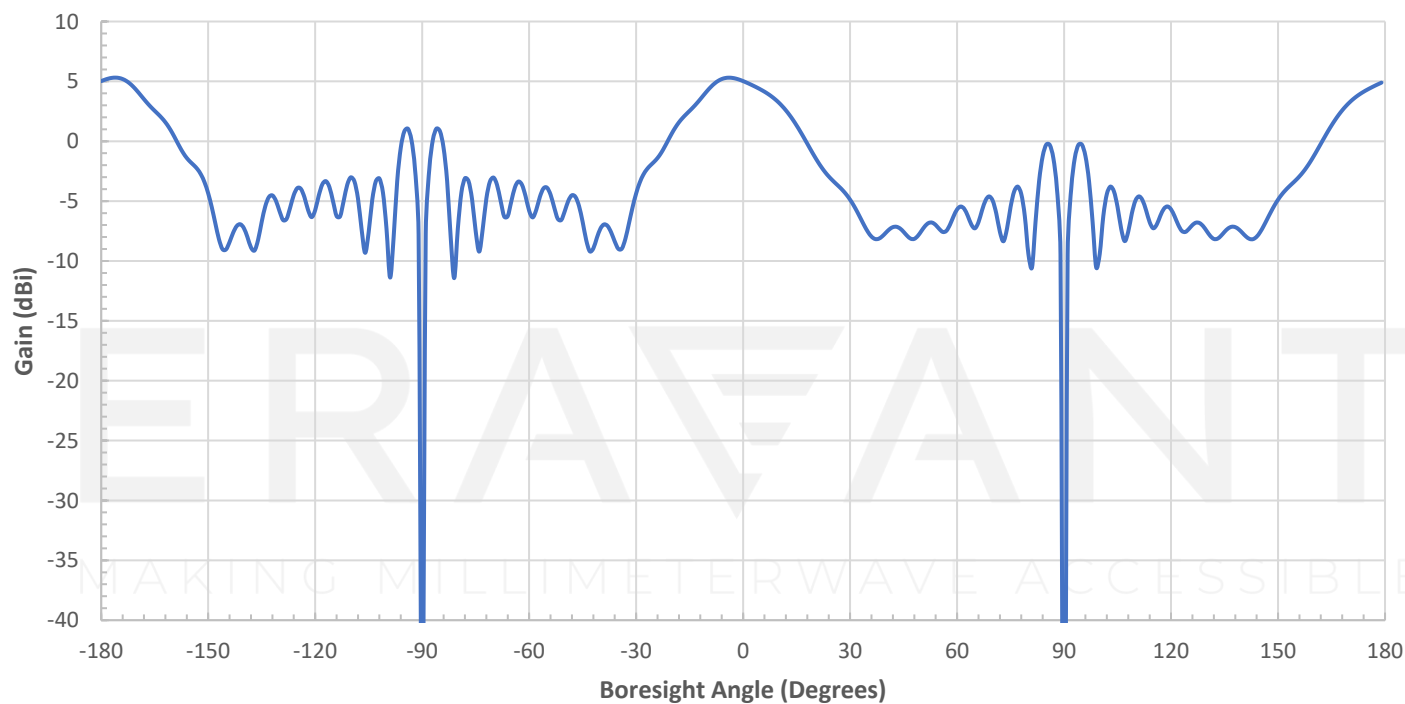
SUPPLEMENTAL DETAILS



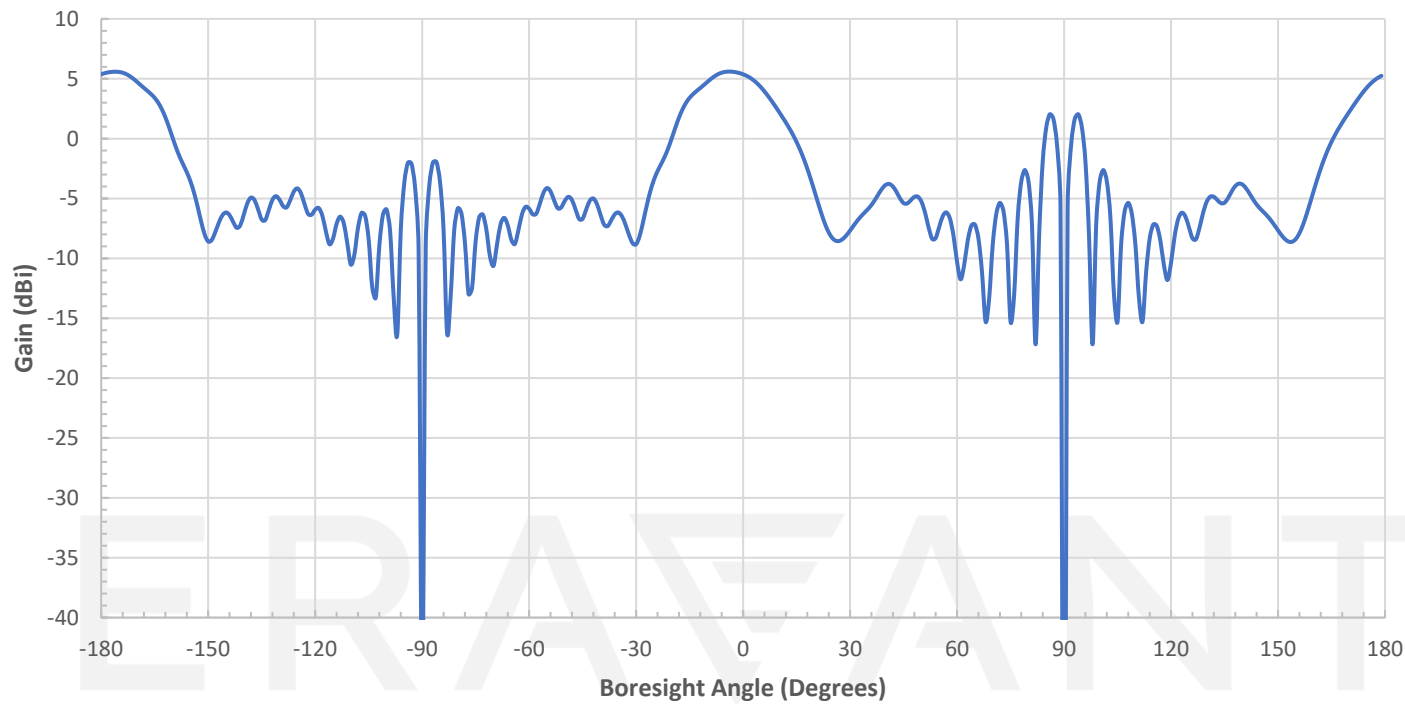
Simulated Antenna Patterns @ 90 GHz



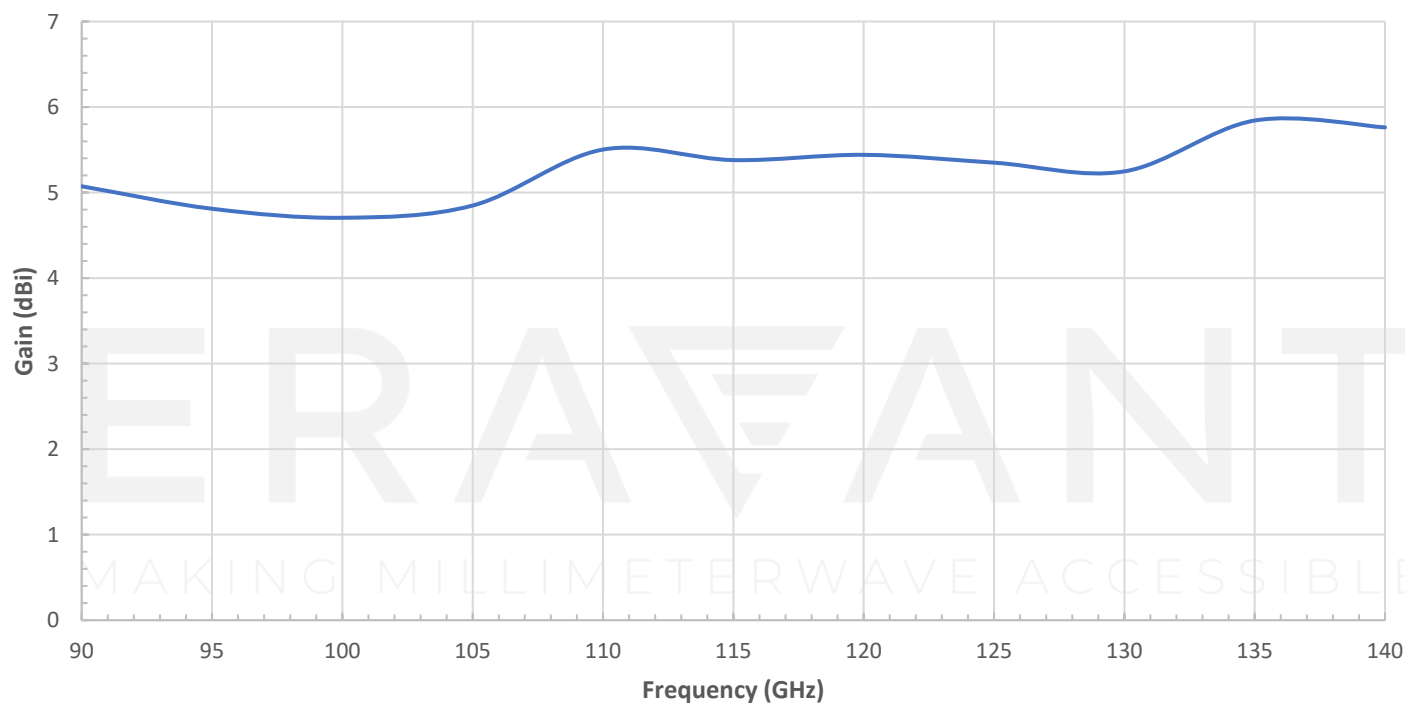
Simulated Antenna Patterns @ 115 GHz



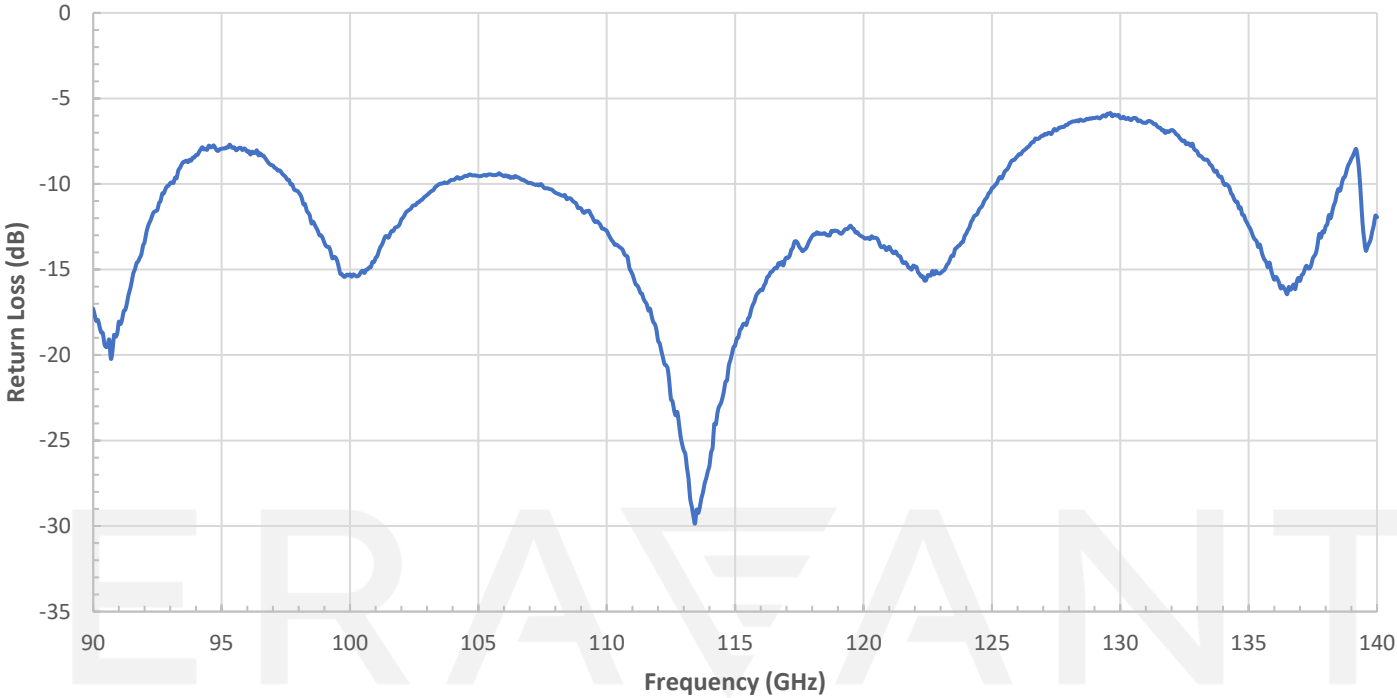
Simulated Antenna Patterns @ 140 GHz



Simulated Gain vs. Frequency

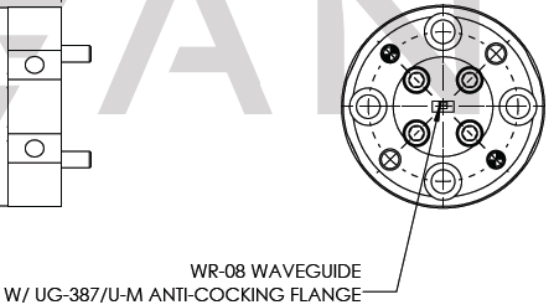
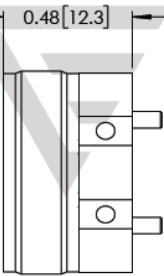
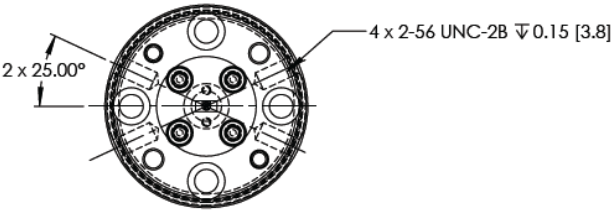


Measured Return Loss Vs. Frequency



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

MOUNTING HOLE LOCATIONS:



NOTE:

- 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.

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