SAO-1141740330-06-S1

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

SAO-1141740330-06-S1 is a full band, WR-06 omnidirectional antenna that operates between 110 and 170 GHz. This vertically polarized antenna offers 360 degrees azimuth coverage with a 3 dB 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-06 waveguide with UG-387/U-M anti-cocking flange.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	110 GHz		170 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 Port	WR-06 Waveguide with UG-387/U-M Anti-Cocking Flange
Body Material	Aluminum
Radome Material	HDPE
Finish	Gold Plated
Weight	0.2 Oz
Outline	AO-D03-045-A

ECCN

EAR99

FEATURES

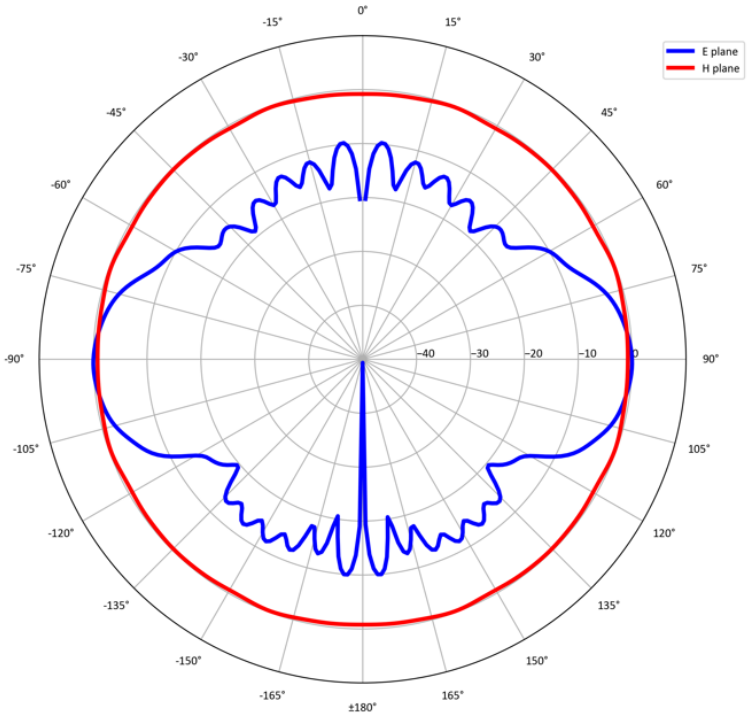
- Full Waveguide Band Operation
- 360˚ Azimuth Coverage
- 30˚ Vertical 3 dB Beamwidth
- Vertically Polarized
- Compact and Light Weight

APPLICATIONS

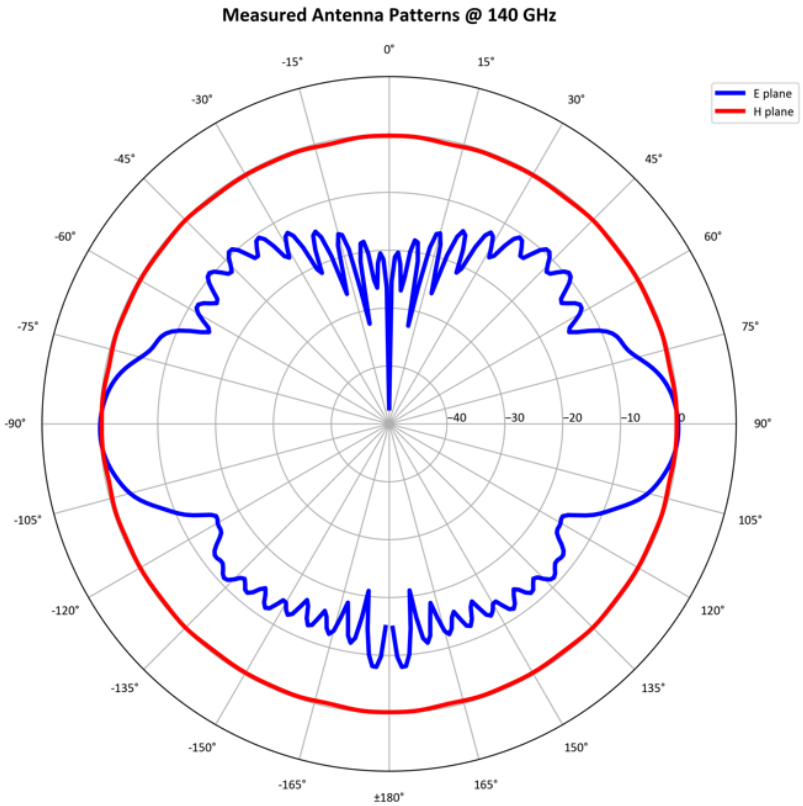
- Communication Links
- EW Systems
- Indoor Local Area Networks

SUPPLEMENTAL DETAILS

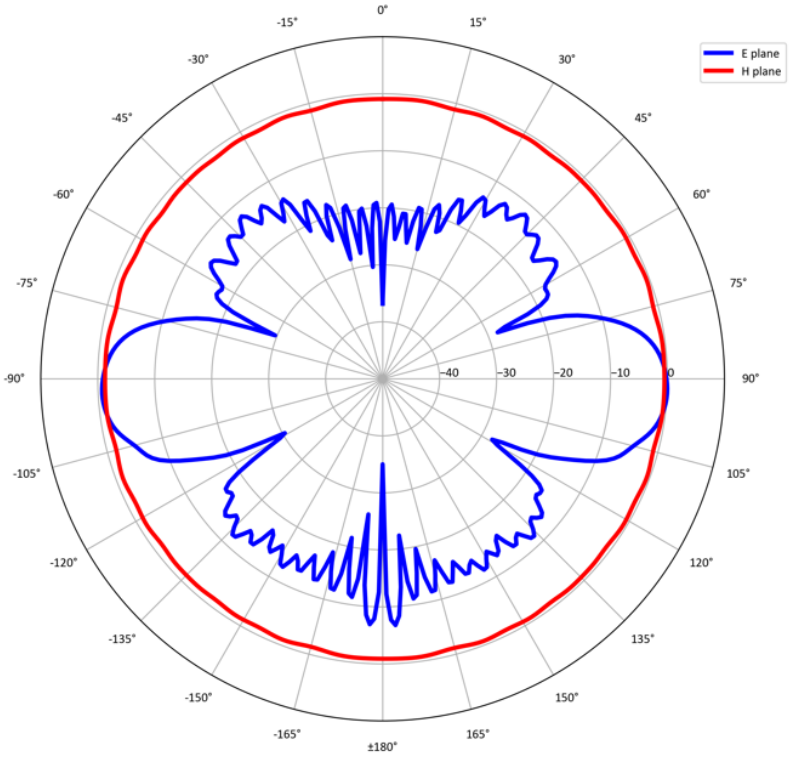
Simulated patterns at 110 GHz



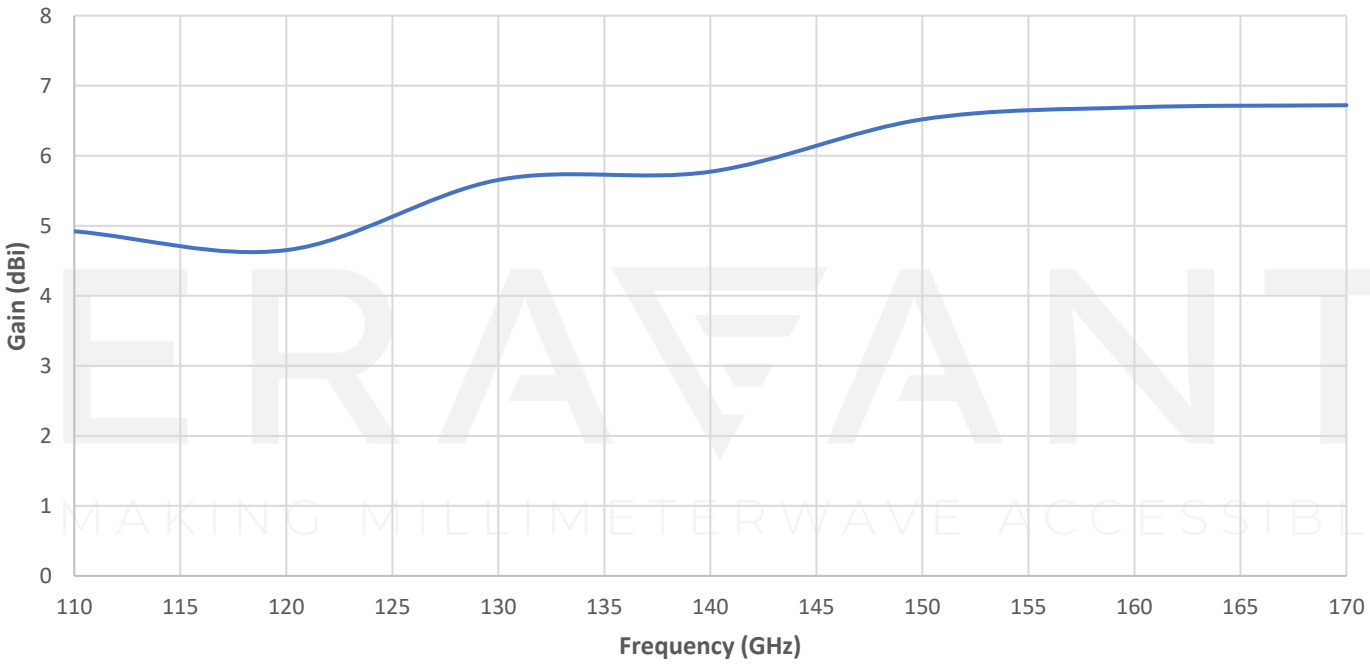
Simulated patterns at 140 GHz



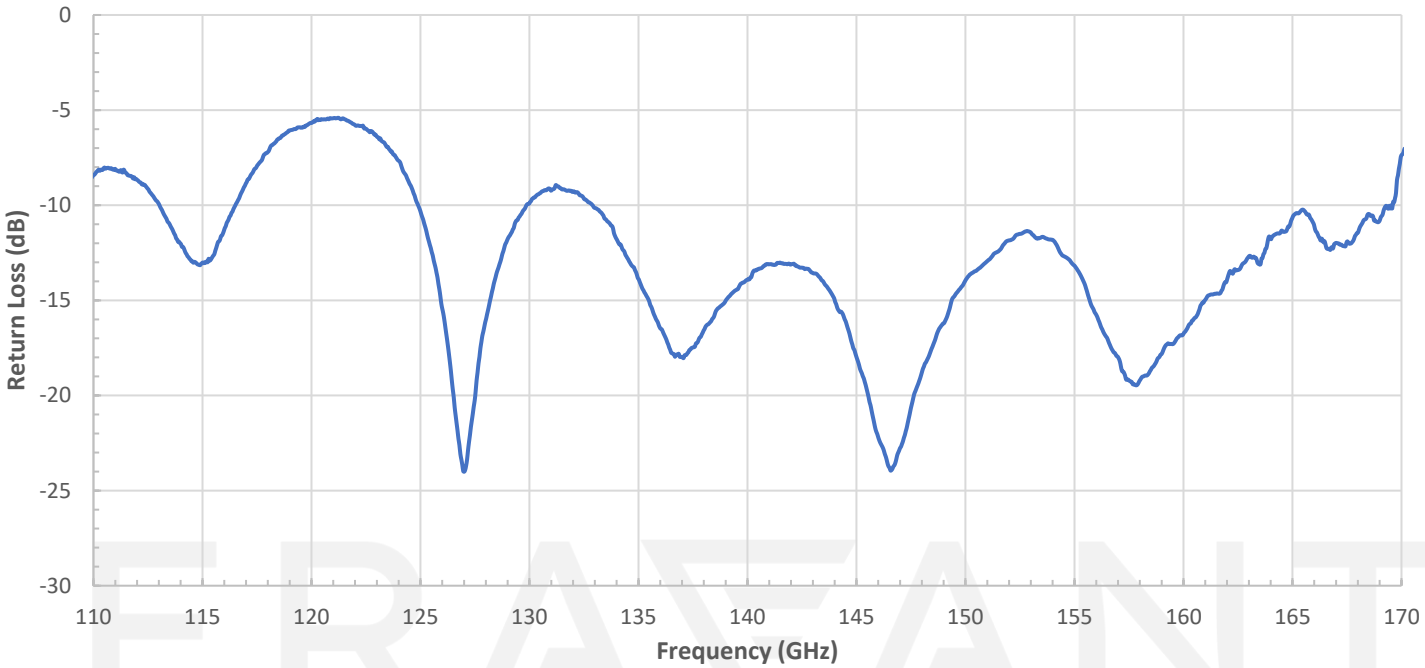
Simulated patterns at 170 GHz



Simulated Gain vs Frequency

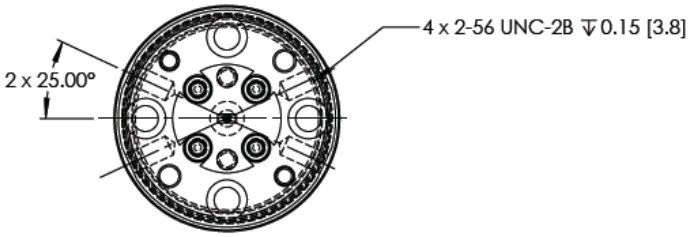


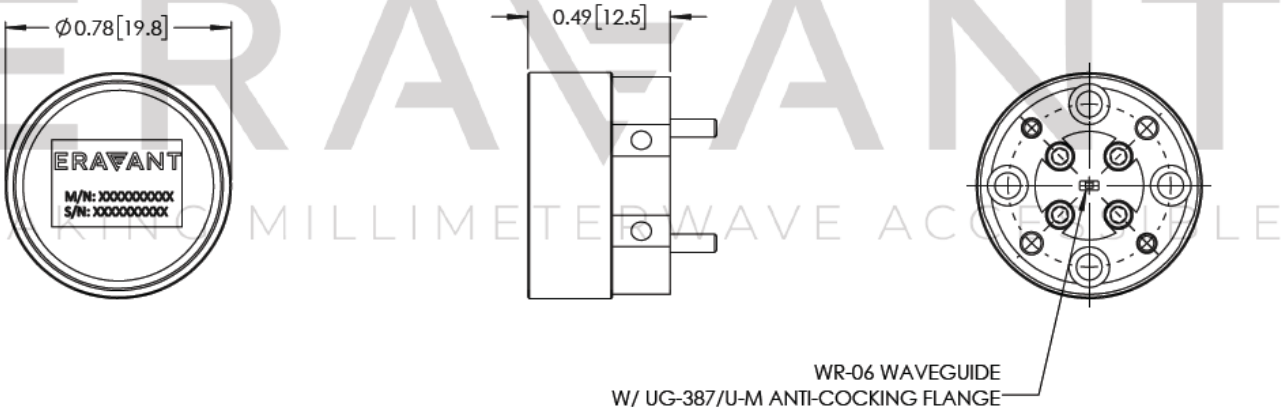
Measured Return Loss vs Frequency



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

MOUNTING HOLE LOCATIONS:





NOTE:

- Data provided is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- 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.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.

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