SAO-3335030230-2F-S1

Q-Band Omnidirectional Antenna, 30 Degree, 5 dBi Gain

SAO-3335030230-2F-S1 is a full band, Q band omnidirectional antenna that covers the frequency range of 33 and 50 GHz. This vertically polarized antenna offers 360 degrees azimuth coverage with a 5 dBi typical gain and ±1 dB nominal gain flatness. The antenna features a half power beamwidth of 30 degrees in its vertical direction. The RF port of the antenna is equipped with 2.4 mm (F) connector interface.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	33 GHz		50 GHz
Gain		5 dBi	
Azimuth Gain Variation		±1 dB	
Azimuth Beamwidth		360˚	
3 dB Vertical Beamwidth		30˚	
Return Loss		10 dB	
Power Handling			30 W (CW)
Specification Temperature		+25 ˚C	
Operating Temperature	-40 ˚C		+85 ˚C

Mechanical Specifications:

Item	Specification
Antenna Port	2.4 mm (F) Connector
Body Material	Aluminum
Radome Material	HDPE
Finish	Gold Plating
Outline	AO-QC05-030-E

ECCN

EAR99

FEATURES

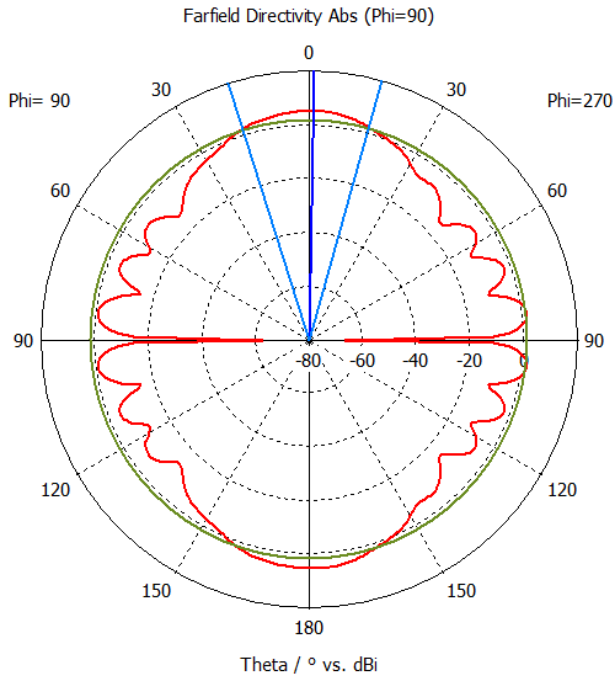
- 360˚ Azimuth Coverage
- 30° Vertical 3 dB Beamwidth
- Vertically Polarized
- Full Band Operation

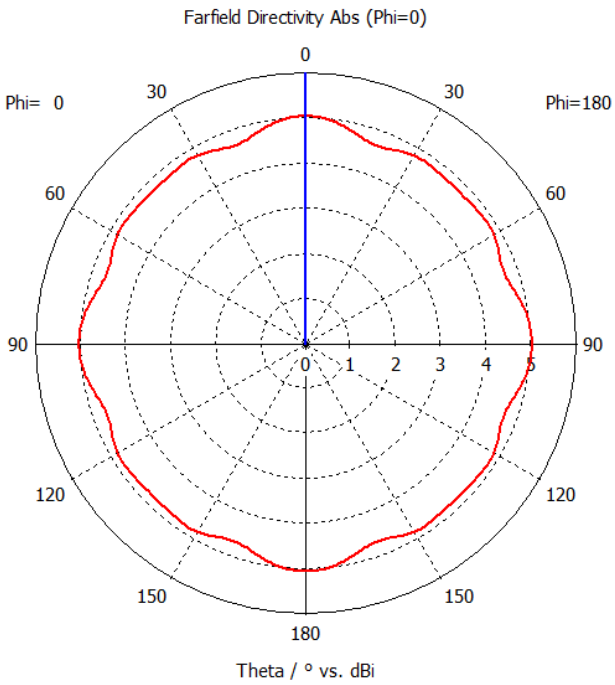
APPLICATIONS

- 5G Systems
- Communication Links
- EW Systems
- Indoor Local Area Networks

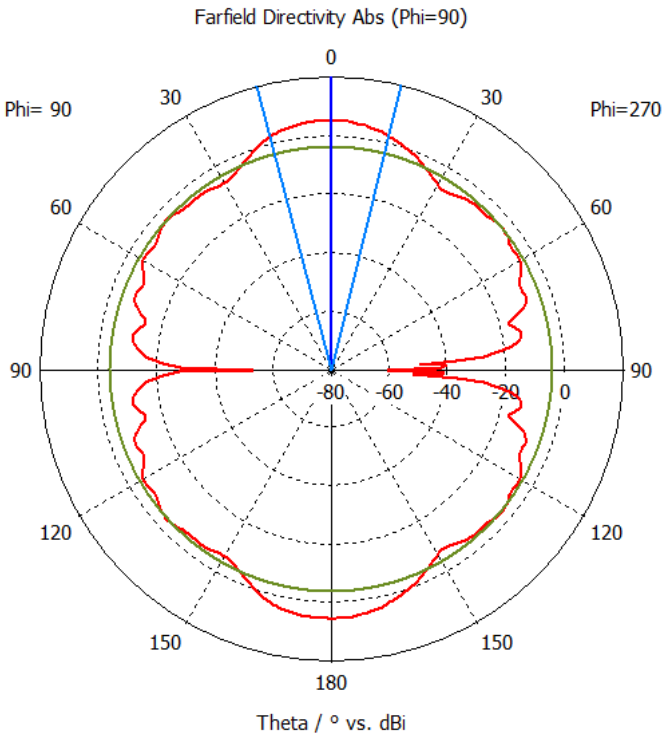
SUPPLEMENTAL DETAILS

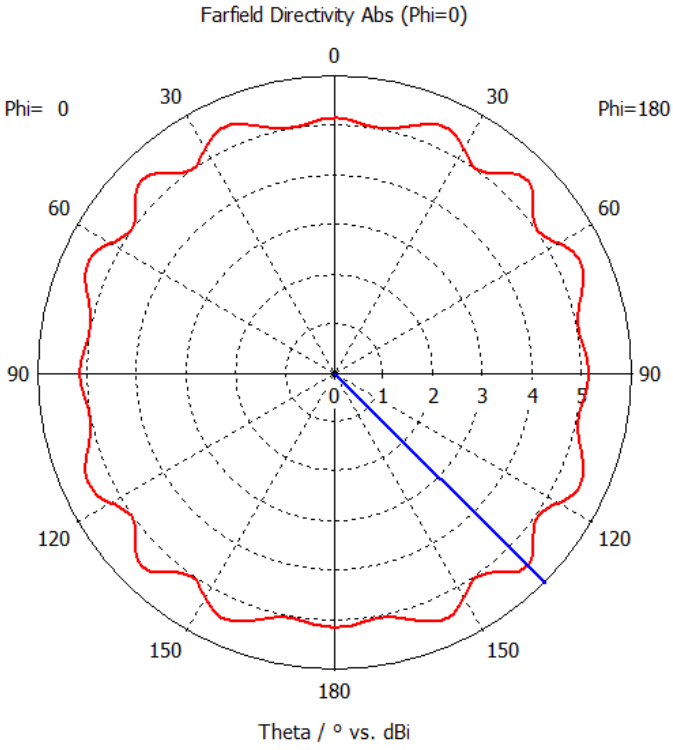
Simulated patterns at 33 GHz



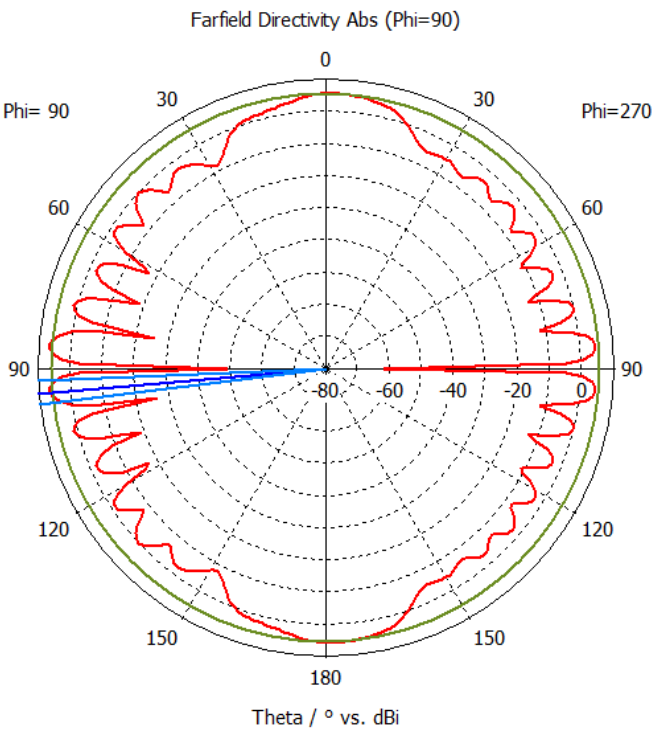


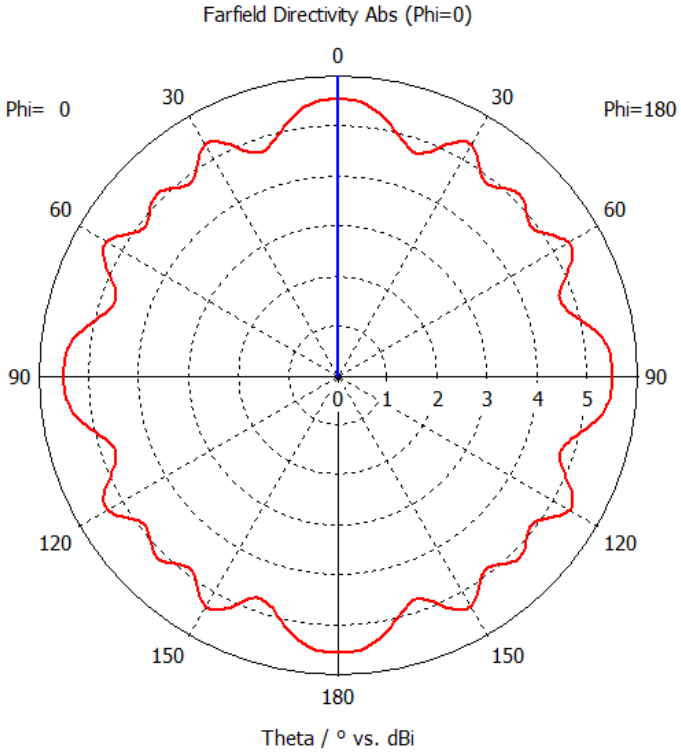
Simulated patterns at 42 GHz



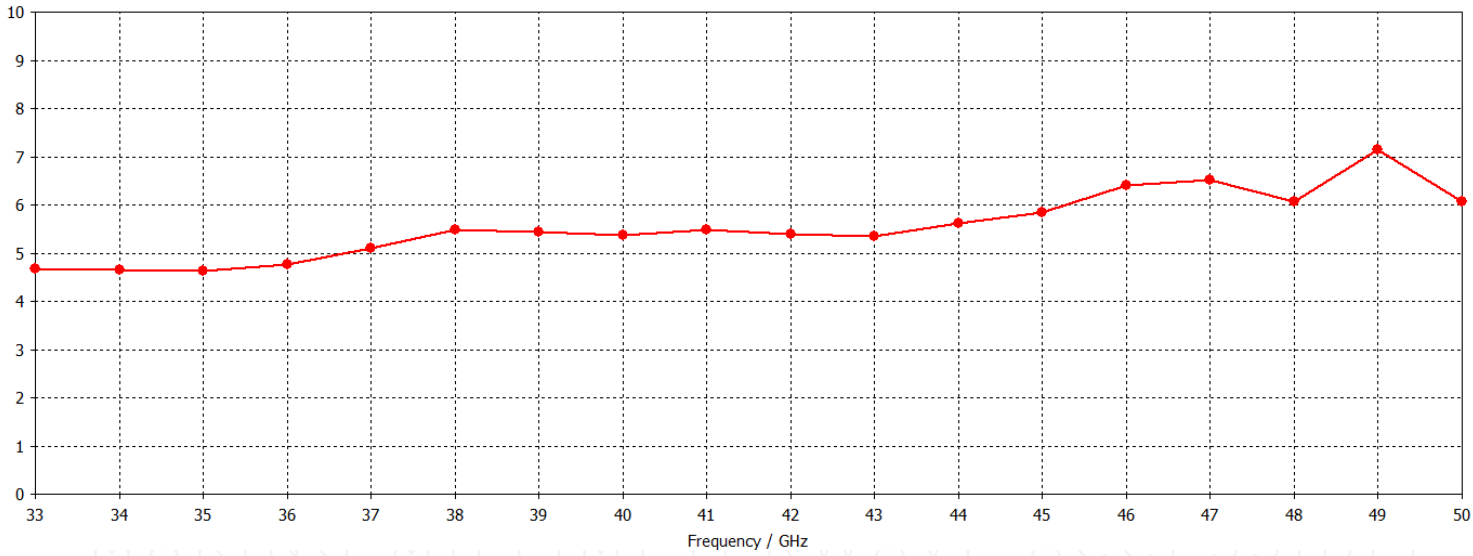


Simulated patterns at 50 GHz

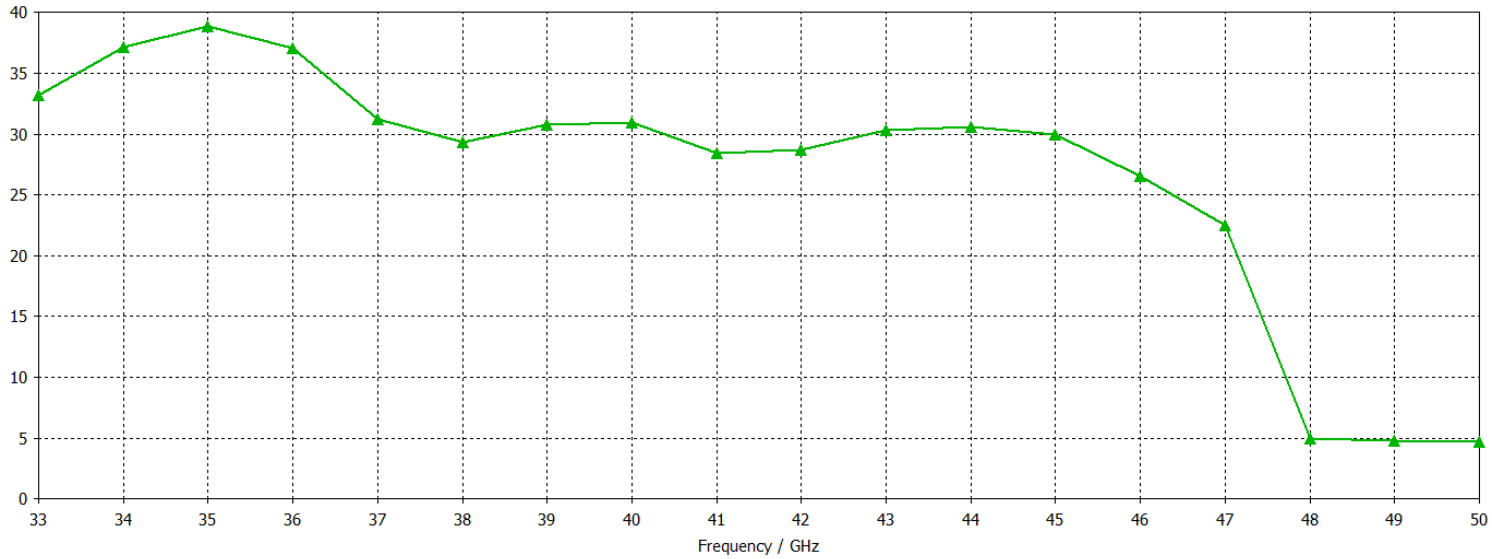




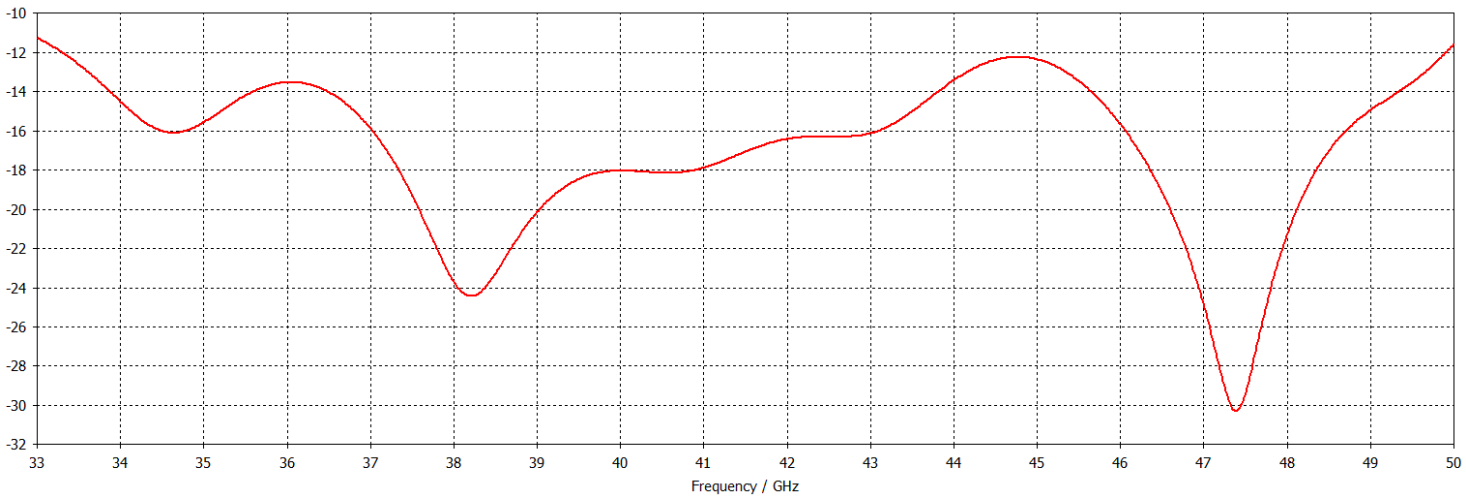
Simulated Gain vs Frequency



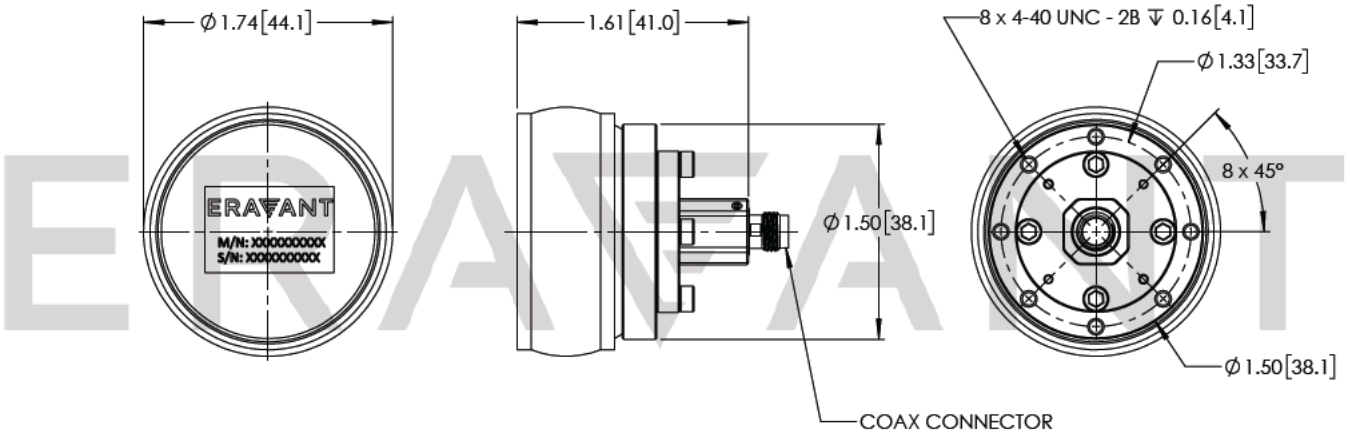
Simulated 3 dB Beamwidth (E-Plane) vs Frequency



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:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.