SAO-2434030345-KF-E1

Ka-Band Omnidirectional Antenna, 45 Degree, 3 dBi Gain

SAO-2434030345-KF-E1 is a full band, Ka band omnidirectional antenna that covers the frequency range of 24 and 40 GHz. This vertically polarized antenna offers 360 degrees azimuth coverage with a 3 dBi typical gain and ±1 dB nominal gain flatness. The antenna features a half power beamwidth of 45 degrees in its vertical direction. The RF port of the antenna is equipped with K(F) coaxial connector. The version with a right-angle K(F) connector is offered under model number, SAO-2434030345-KF-R1

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	24 GHz		40 GHz
Gain		3 dBi	
Azimuth Gain Variation		±1 dB	
Azimuth Beamwidth		360˚	
3 dB Vertical Beamwidth		45˚	
Return Loss, 24.0 to 26.5 GHz		6 dB	
Return Loss, 26.5 to 40.0 GHz		8 dB	
Power Handling		50 W (CW)	75 W (CW)
Specification Temperature		+25 ˚C	
Operating Temperature	-40 ˚C		+85 ˚C

Mechanical Specifications:

Item	Specification
Input	2.92 mm (K) Female Connector
Size	1.36” (H) x 1.79” (Ø)
Body Material	Aluminum
Radome Material	HDPE
Finish	Gold Plating
Weight	1.90 Oz
Outline	AO-AC03-045-E

ECCN

EAR99

FEATURES

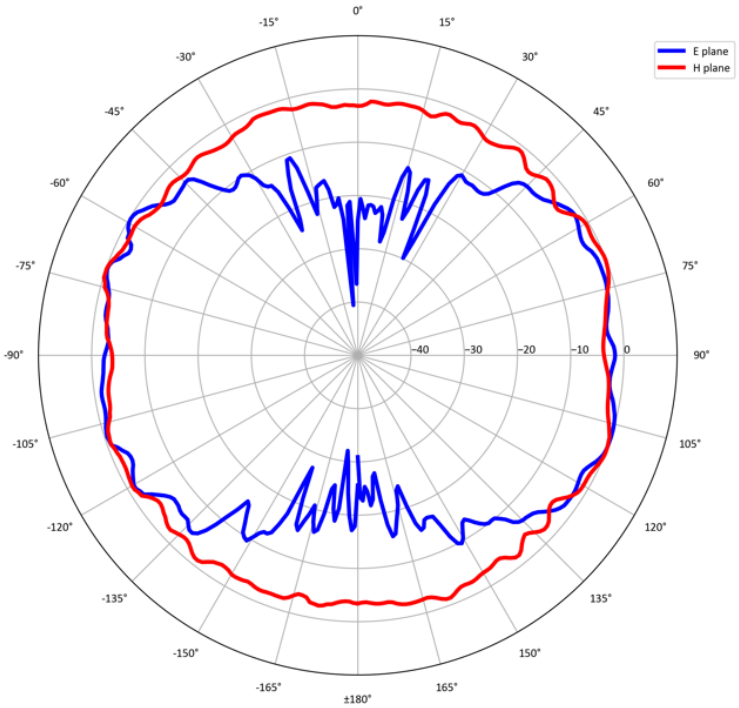
- 360˚ Azimuth Coverage
- 45° Vertical 3 dB Beamwidth
- Vertically Polarized
- Full Band Operation

APPLICATIONS

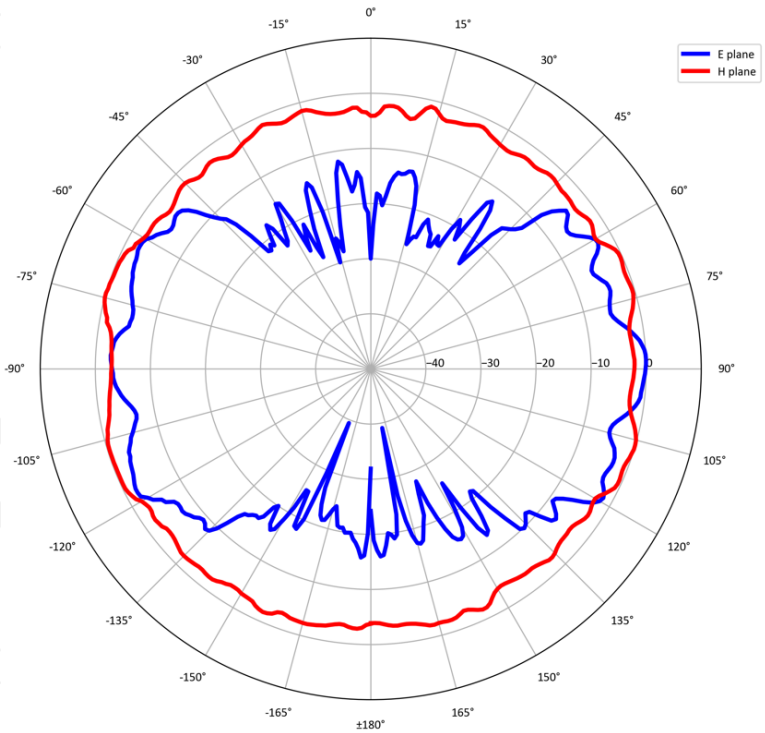
- 5G Systems
- Communication Links
- EW Systems
- Indoor Local Area Networks

SUPPLEMENTAL DETAILS

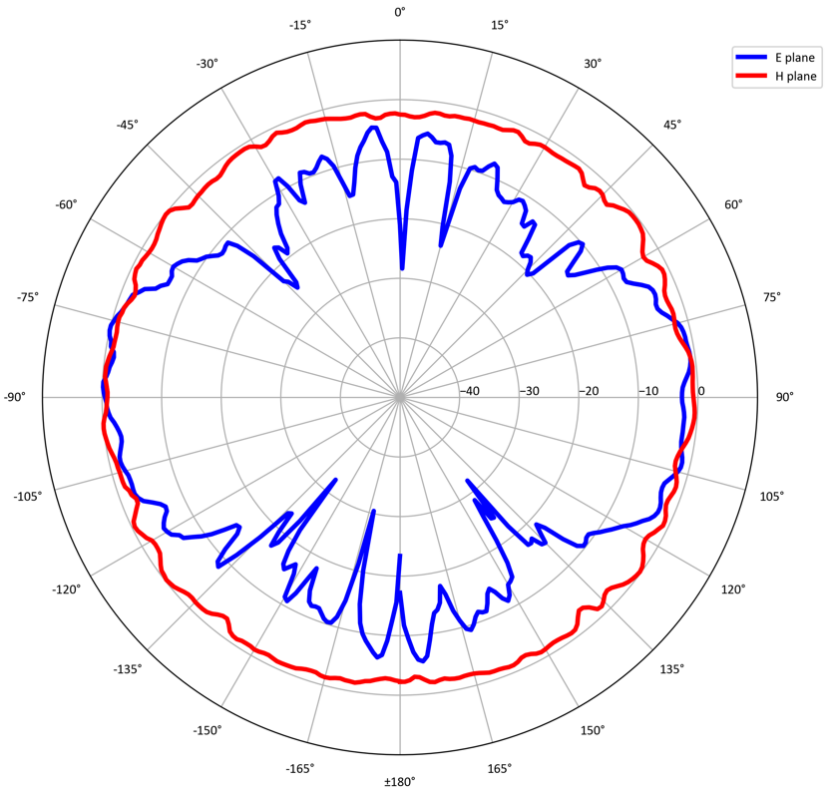
Measured Antenna Patterns @ 24 GHz



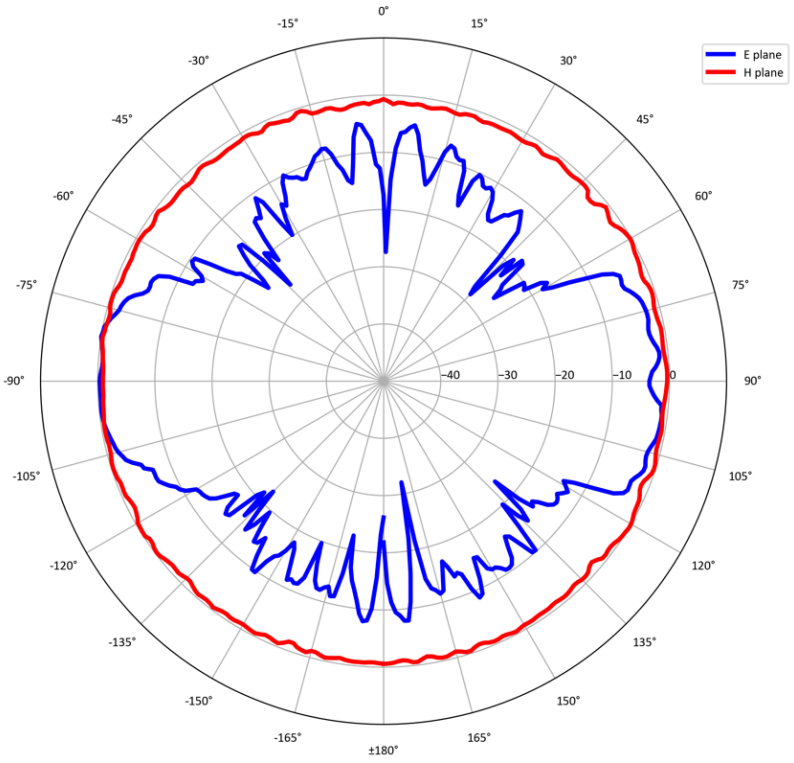
Measured Antenna Patterns @ 26.5 GHz



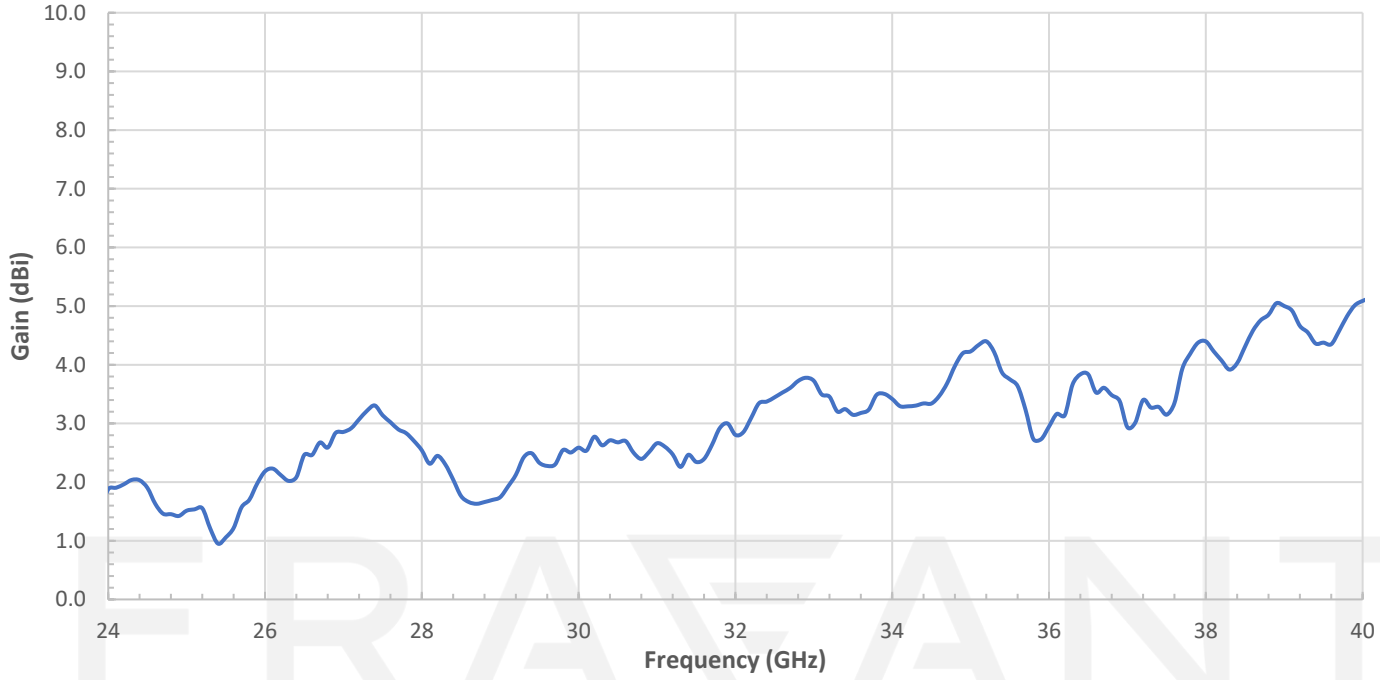
Measured Antenna Patterns @ 33.5GHz



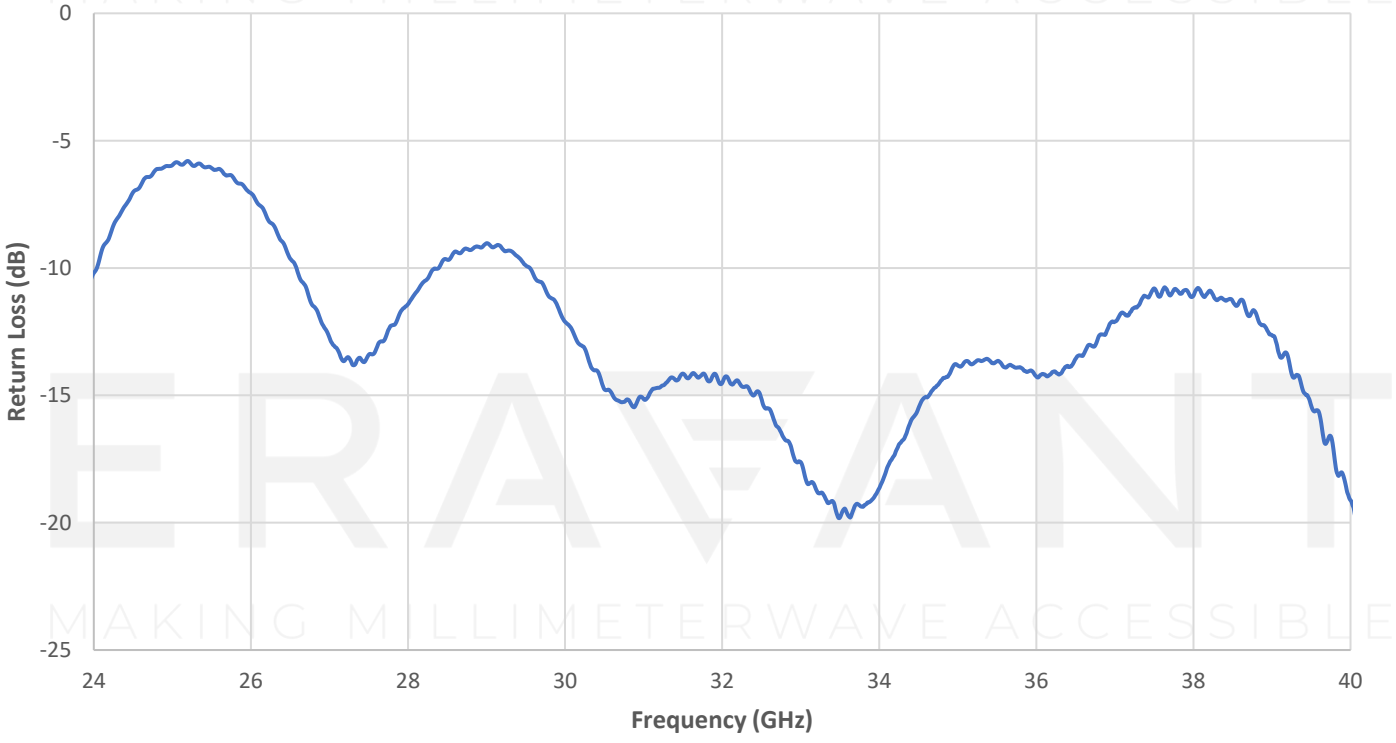
Measured Antenna Patterns @ 40 GHz



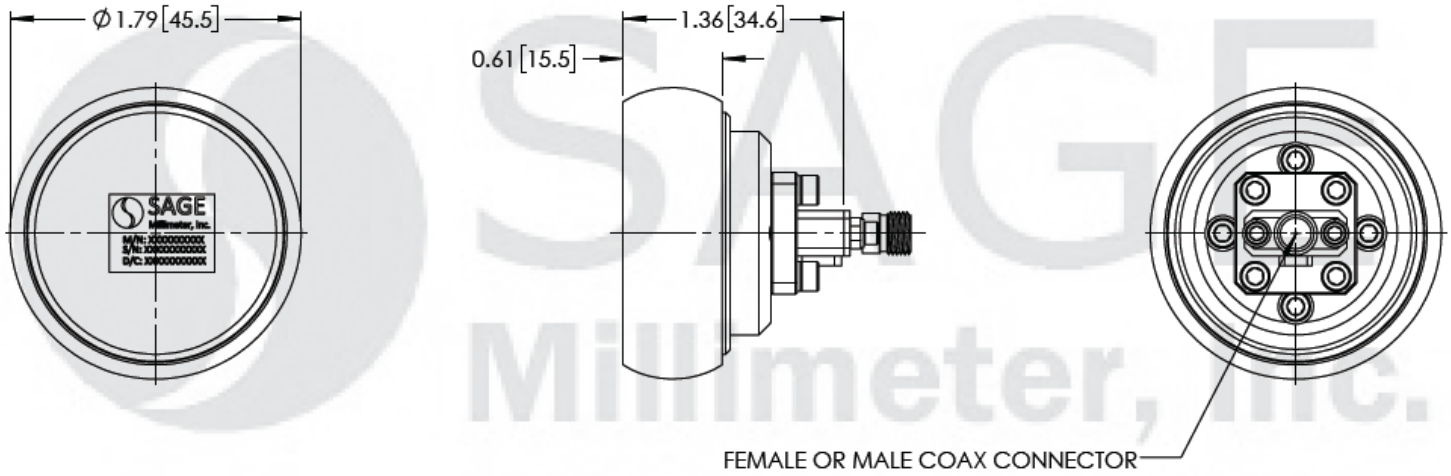
Measured Gain vs Frequency



Measured Return Loss vs Frequency



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



NOTE:

- Test 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:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.92 ± 0.05 Nm), should be applied. Eravant torque wrench, model SCH-08008-S1, is highly recommended.