



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

Description:

Model SAO-2734030345-28-S1-WR is a full band, Ka band omnidirectional antenna that covers the frequency range of 26.5 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 WR-28 waveguide with UG-599/U flange. The waveguide has an o-ring surrounding it to prevent small amounts of water from entering the antenna. The version with 2.92 mm (F) interface is offered under model number, **SAO-2734030345-KF-S1**.



Features:

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

Applications:

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

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	26.5 GHz		40.0 GHz
Gain		3 dBi	
Azimuth Gain Variation		± 1 dB	
Azimuth Beamwidth		360°	
3 dB Vertical Beamwidth		45°	
Return Loss		10 dB	
Power Handling		150 W (CW)	200 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

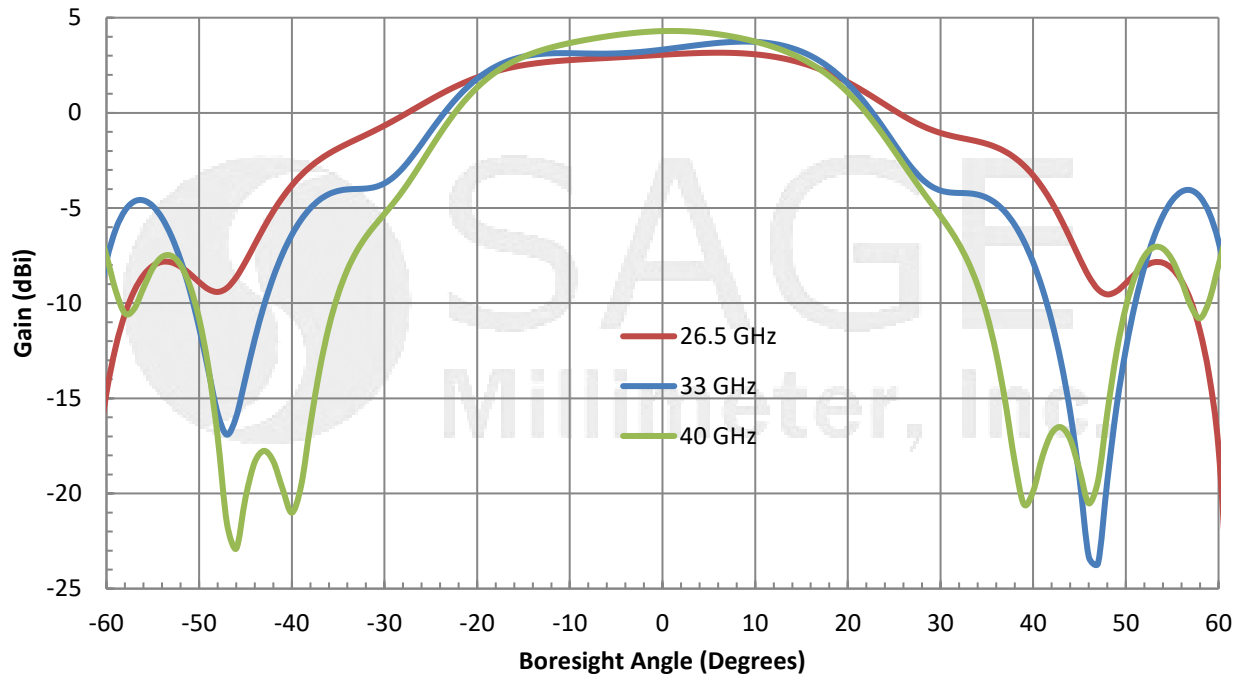
Item	Specification
Antenna Port	WR-28 Waveguide with UG-599/U Flange, 4-40 Threaded Holes
Body Material	Aluminum
Radome Material	HDPE
Finish	Gold Plating
Weight	1.7 Oz
Size	0.91" (H) x 1.79" (Ø)
Outline	AO-A03-045-WR



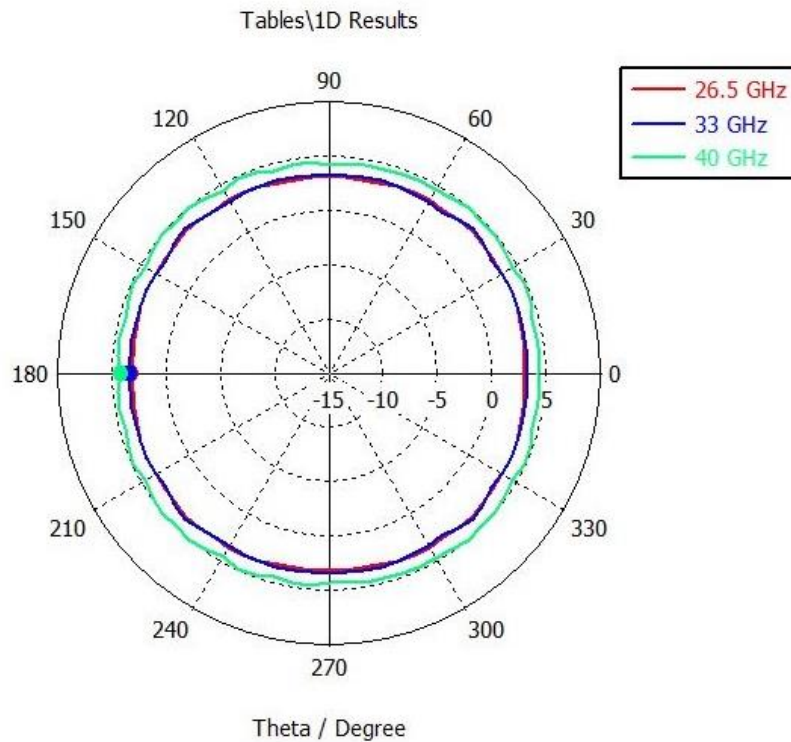


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Simulated E-Plane Antenna Patterns



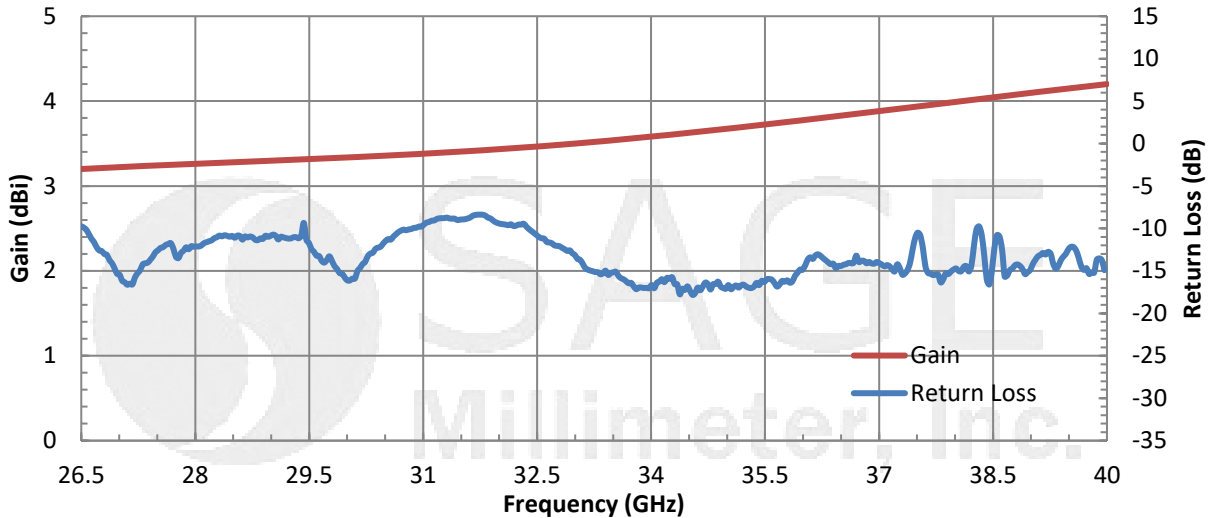
Simulated H-Plane Antenna Patterns



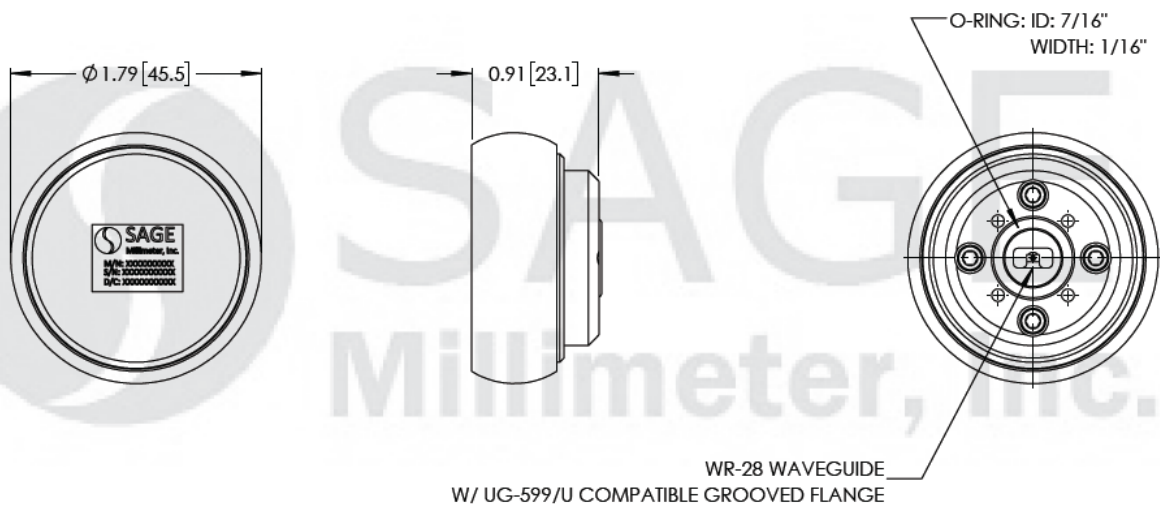


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Typical Gain and Return Loss vs. Frequency



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



Note:

- Gain data presented is collected from a sample lot, actual data may vary unit to unit, slightly.
- All testing was performed under +25 °C room temperature.
- All other data presented is simulated. Actual data may vary, slightly.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Any foreign objects in the waveguide will cause performance degradation and possible device damage.
- Water or condensation on the antenna will change its electrical performance. All specifications and collected data apply only to indoor use and dry environment.

