



## Ka-Band Sector Antenna, 120 Degree, H Plane

### Description:

**Model SAE-3034030060120-28-S1** is a Ka-band sector antenna that covers the frequency range from 30 to 40 GHz. This vertically polarized antenna offers 120 degrees azimuth coverage with 0 dBi gain and  $\pm 3$  dB gain flatness across the bandwidth. The antenna features a half power beamwidth of 60 degrees in the vertical direction. The RF interface port of the antenna is WR-28 waveguide with UG-599/U-M flange. Another antenna port configuration, such as 2.92 mm (K) coaxial interface is offered under model number, SAE-30340360120-KF-S1.



### Features:

- 120° Azimuth Coverage
- 60° Vertical 3 dB Beamwidth
- Vertically Polarized

### Applications:

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

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency*	30 GHz		40 GHz
Gain		0 dBi	
Gain Variation		$\pm 3$ dB	
Azimuth		120°	
3 dB Beamwidth, Vertical		60°	
Return Loss		10 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

\*Note: The antenna can cover the frequency of 26.5 to 40 GHz.

### Mechanical Specifications:

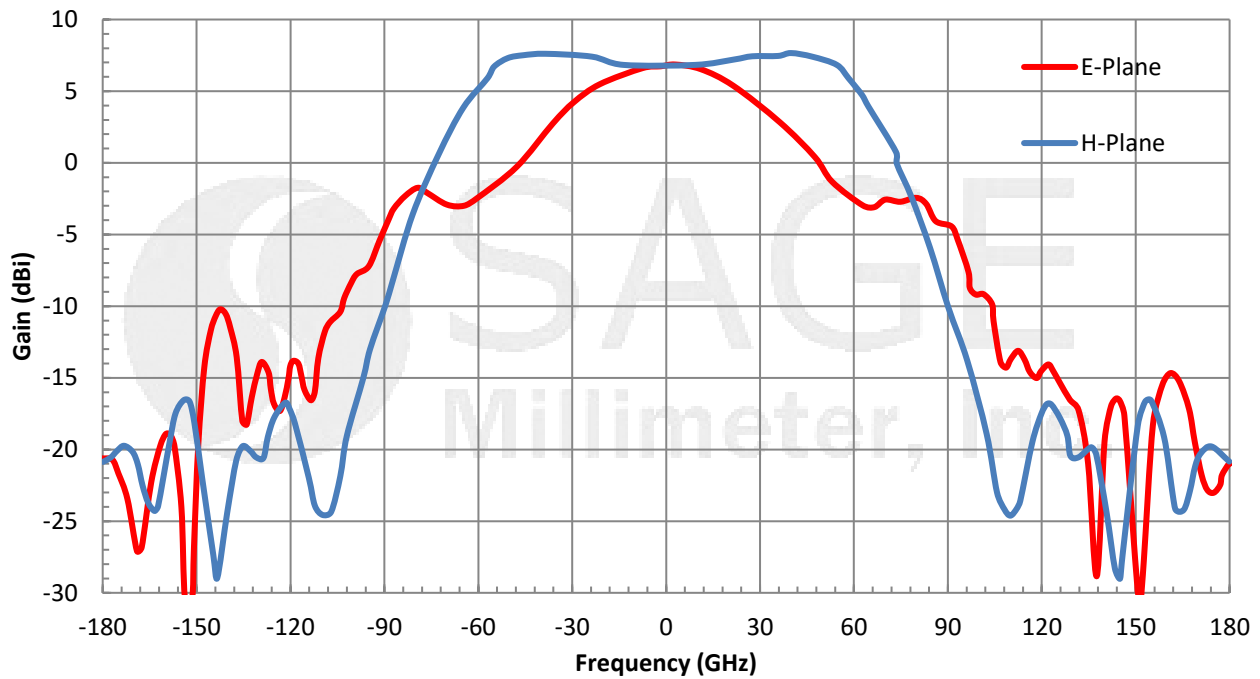
Item	Specification
Input Port	WR-28 Waveguide with UG-599/U-M Flange
Material	Aluminum
Finish	Gold Chem Film
Weight	2.7 lbs
Size	0.87" (H) x 2.00" ( $\phi$ )
Outline	AE-A00-060



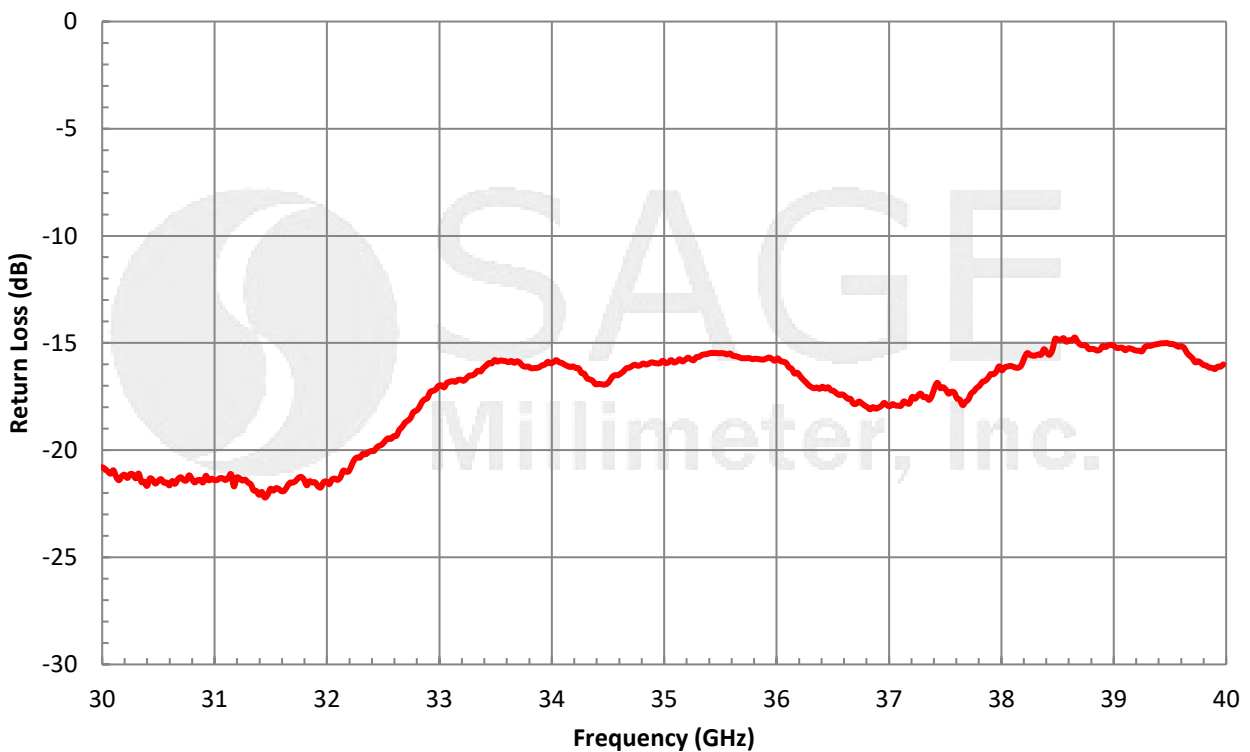


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### Simulated Antenna Patterns @ 35 GHz



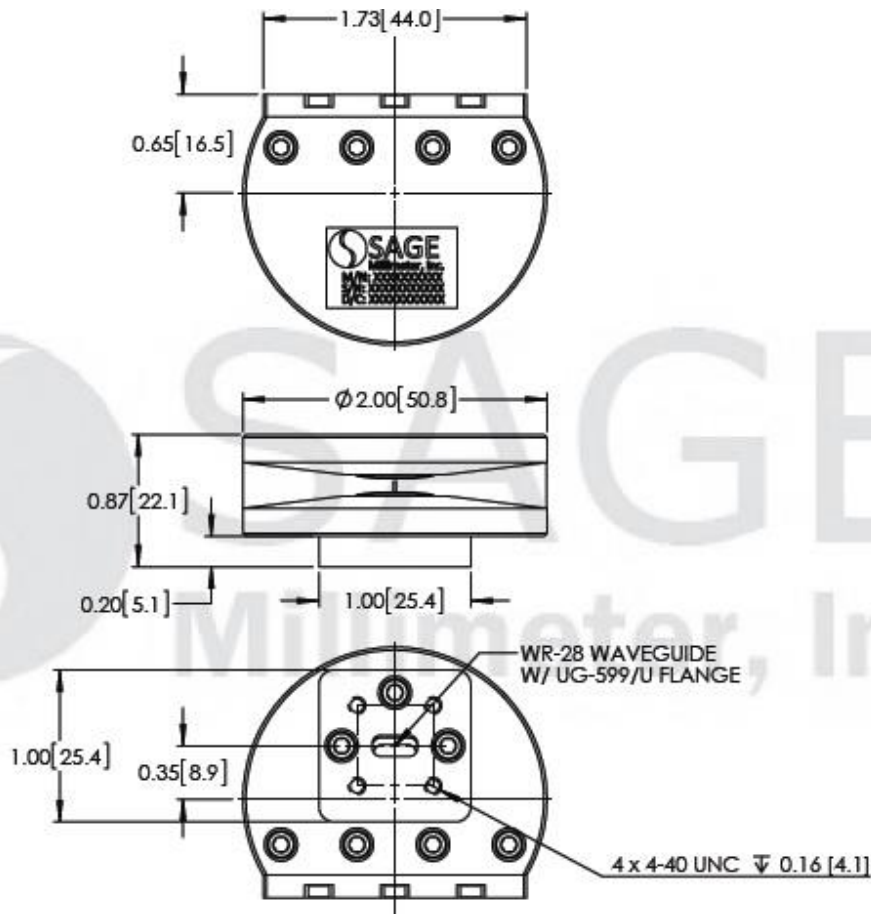
### Typical Measured Return Loss vs. Frequency





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



**Note:**

- E and H plane pattern data presented is simulated. Actual data may vary unit to unit.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

**Caution:**

- Foreign objects in the waveguide will affect device performance and may damage the antenna.

