



## Ka-Band Sector Antenna, 180 Degree, Horizontal

### Description:

**Model SAE-2832930645180-28-S1** is a WR-28 sector antenna that covers the frequency range from 27.5 to 29.5 GHz. This vertically polarized antenna offers 180 degrees azimuth coverage with 6 dBi gain and  $\pm 3$  dB gain flatness across the bandwidth. The antenna features a half power beamwidth of 45 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-28329345180-KF-S1.



### Features:

- 180° Azimuth Coverage
- 45° Vertical 3 dB Beamwidth
- Vertically Polarized

### Applications:

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

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	27.5 GHz	28.5 GHz	29.5 GHz
Gain		6 dBi	
Gain Variation		$\pm 3$ dB	
Azimuth		180°	
3 dB Beamwidth, Vertical		45°	
Return Loss		14 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

\*The antenna can cover the frequency range of 27 to 32 GHz.

### Mechanical Specifications:

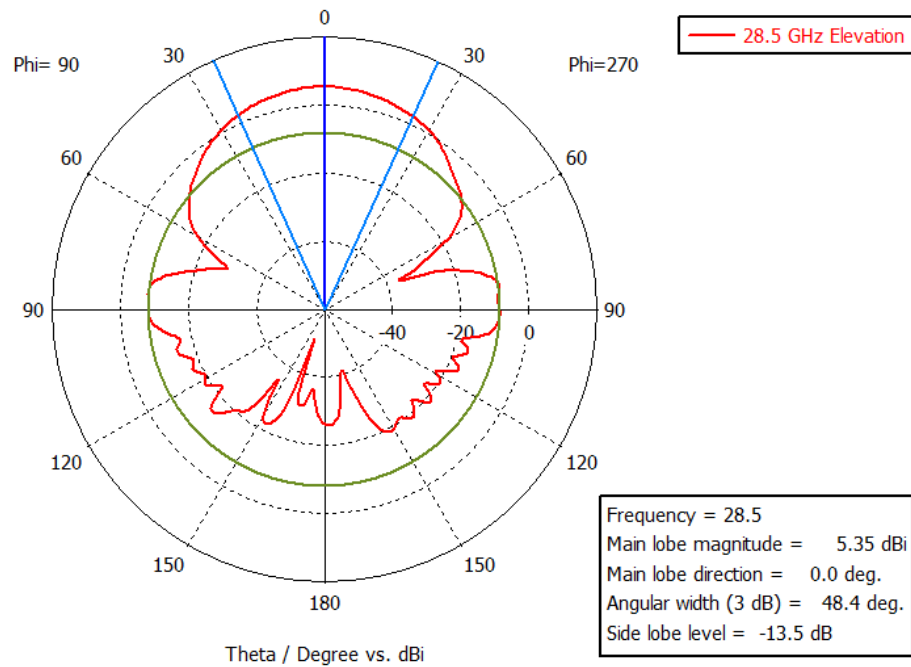
Parameter	Specification
Input	WR-28 Waveguide with UG-599/U Flange
Size	1.03" (L) x 3.0" ( $\phi$ )
Body Material	Aluminum
Finish	Gold Chem Film
Weight	6.0 Oz
Outline	AE-A06



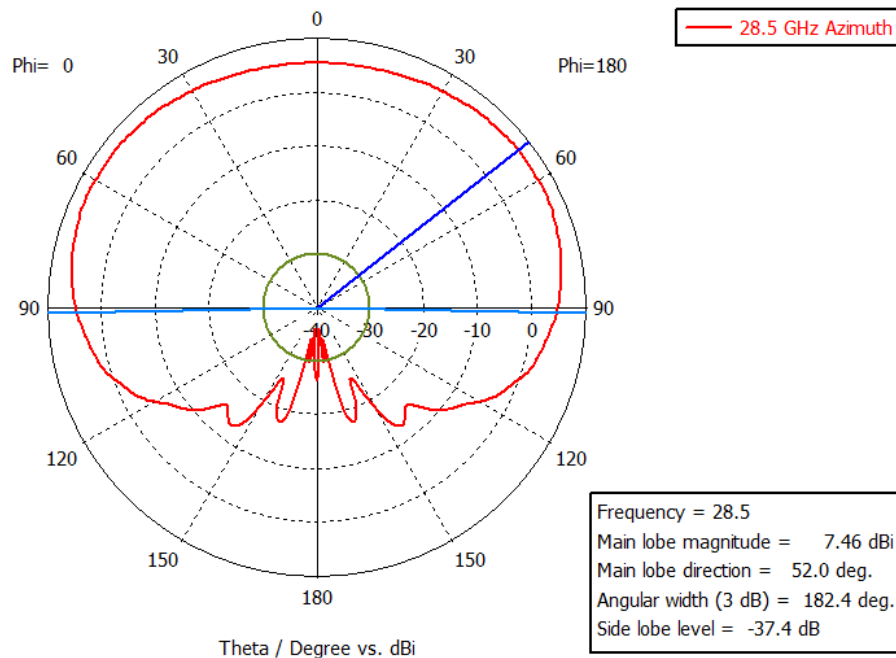


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### Simulated E Plane Pattern @ 28.5 GHz



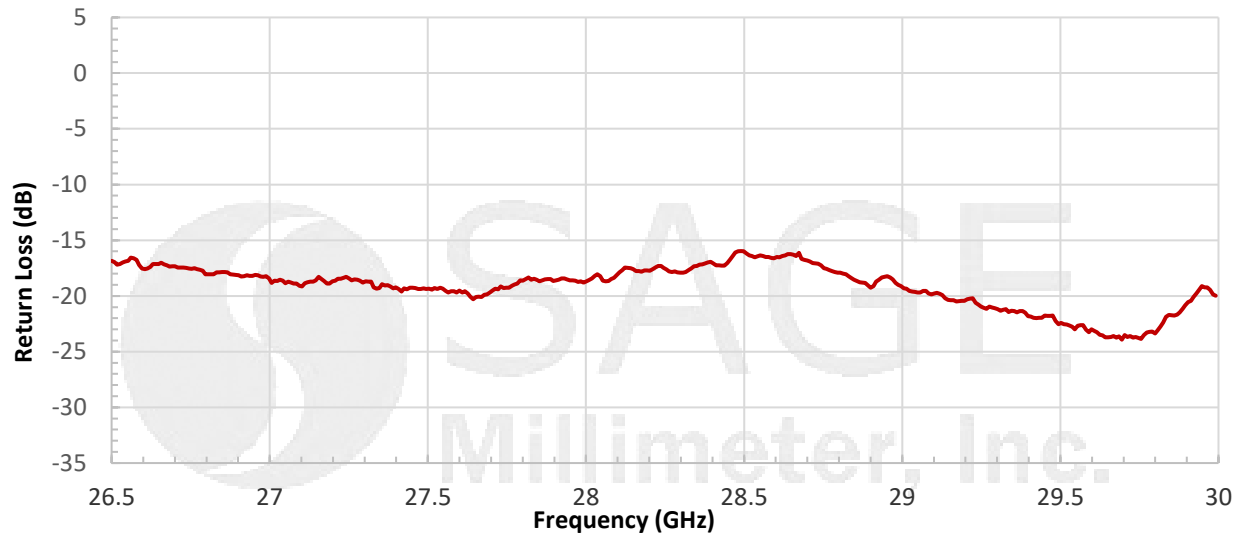
### Simulated H Plane Pattern @ 28.5 GHz



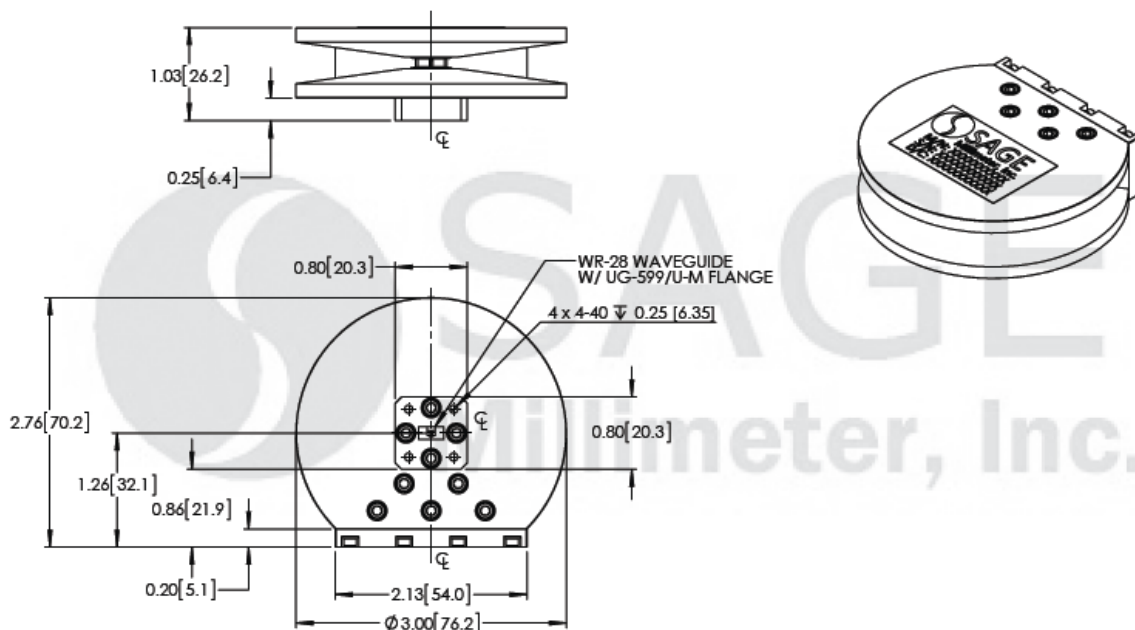


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### Typical Measured Return Loss vs. Frequency



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



#### Note:

- E and H plane pattern data presented are simulated.
- Return loss data presented is measured by using a limited sample lot. 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.



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