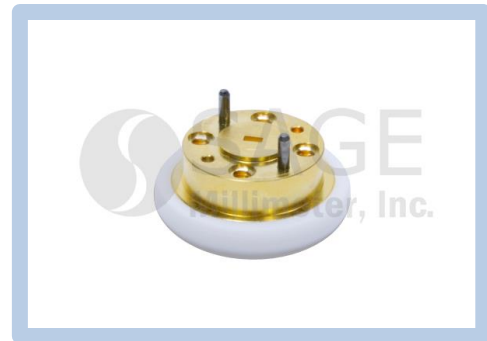




## W-Band Omnidirectional Antenna, 360 Degree

### Description:

**Model SAO-9031040060-10-S1** is a W-band omnidirectional antenna that operates from 90 and 100 GHz. This vertically polarized antenna offers 360 degree azimuth coverage with 0 dBi gain and  $\pm 3$  dB gain flatness. The antenna features a half power beamwidth of 60 degrees in the vertical direction.



### Features:

- 360° Azimuth Coverage
- 60° Vertical 3 dB Beamwidth
- Vertically Polarized

### Applications:

- Communication Links
- EW Systems
- Indoor Local Area Networks

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range*	90 GHz		100 GHz
Gain		0 dBi	
Gain Variation		$\pm 3$ dB	
Azimuth		360°	
3 dB Beamwidth, Vertical		60°	
VSWR		2:1	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

\*Note: The actual frequency range coverage is wider.

### Mechanical Specifications:

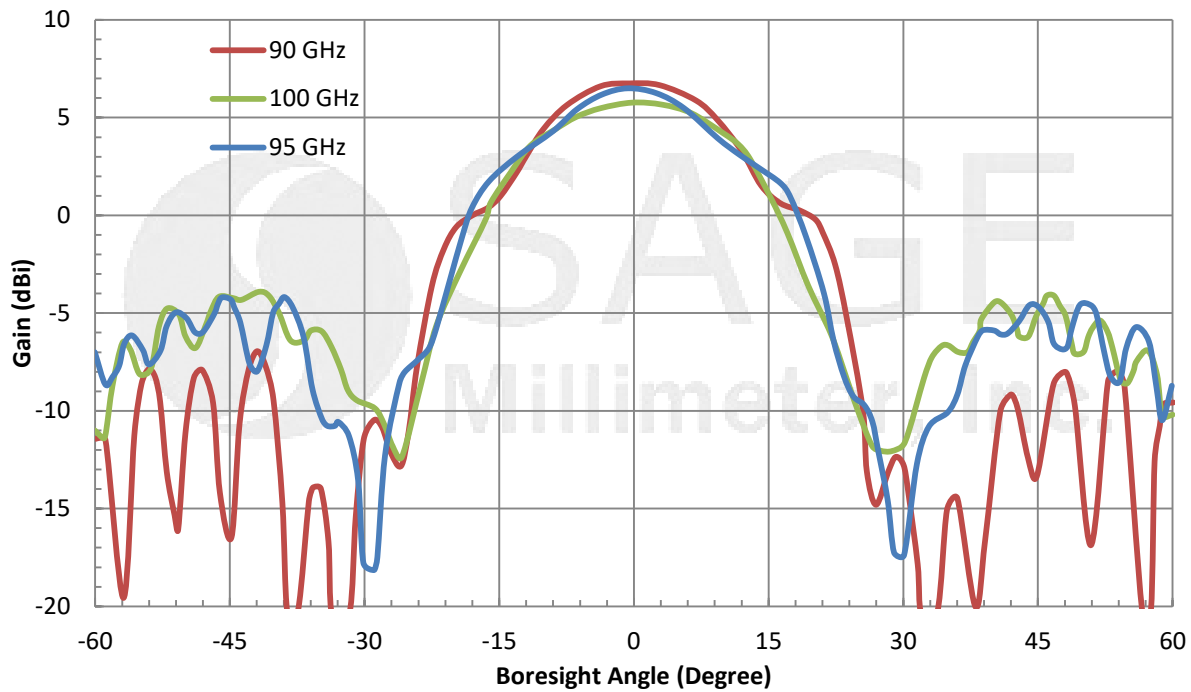
Item	Specification
Input	WR-10 Waveguide with UG-387/U-M Flange
Size	0.40" (H) x 1.04" (D)
Body Material	Aluminum
Lens Material	PTFE
Finish	Gold Plated
Weight	0.2 Oz
Outline	AO-W00-060



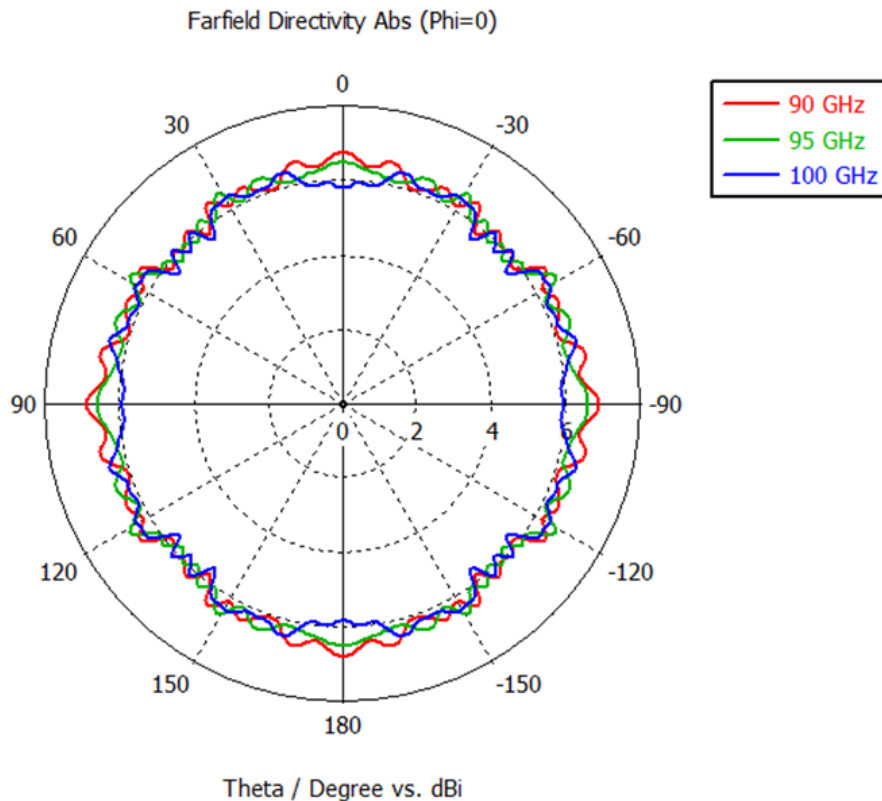


## W-Band Omnidirectional Antenna, 360 Degree

### Simulated E-Plane Patterns



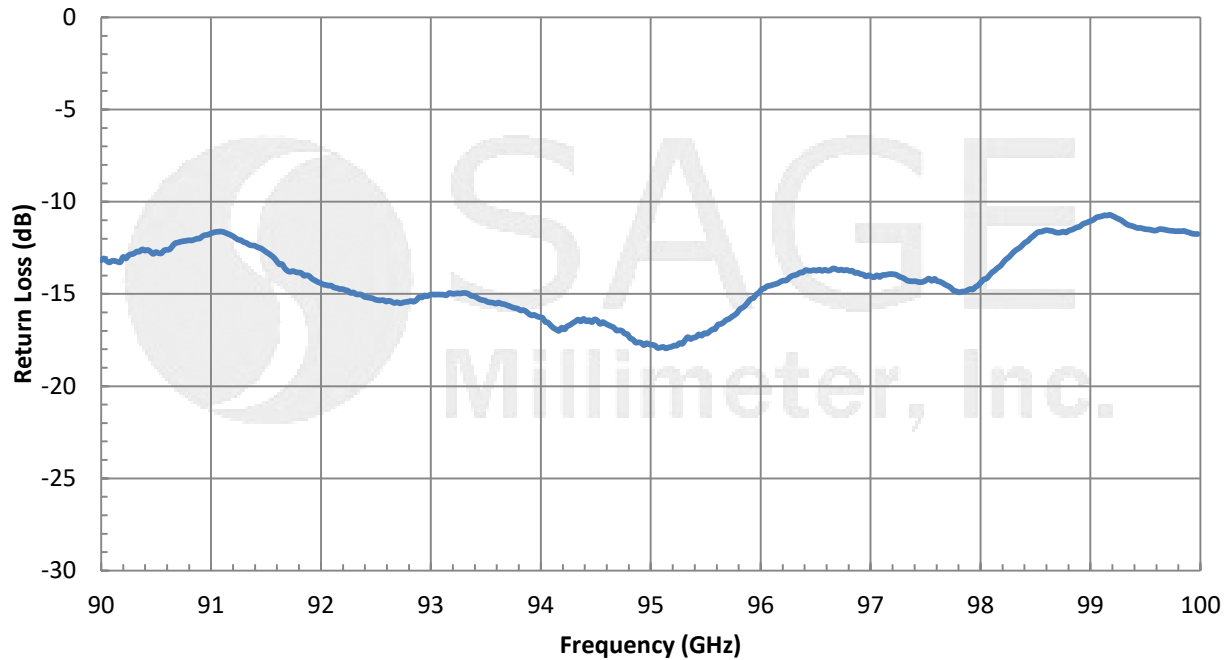
### Simulated H-Plane Patterns



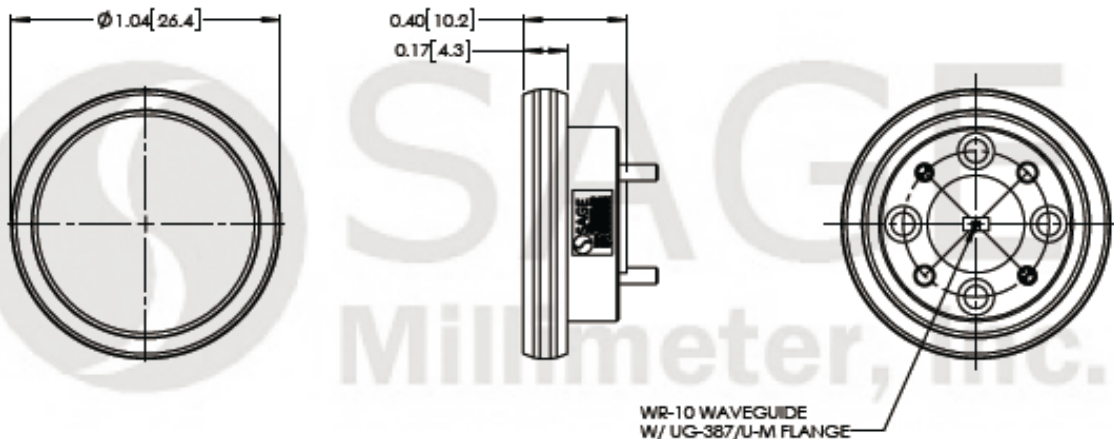


## W-Band Omnidirectional Antenna, 360 Degree

### Typical Return Loss vs. Frequency



**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.
- The return loss presented is collected from a sample lot. Actual data may vary unit to unit.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

**Caution:**



www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505  
 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

## W-Band Omnidirectional Antenna, 360 Degree

- Any foreign objects in the antenna will cause performance degradation and possible device damage.

