



W-Band Omnidirectional Antenna, 360 Degree

Description:

Model SAO-9031040060-10-S1 is a W-band omnidirectional antenna that operates between 90 and 100 GHz. This vertically polarized antenna offers 360 degree azimuth coverage with 0 dBi gain and ± 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		± 3 dB	
Azimuth		360°	
3 dB Beamwidth, Vertical		60°	
Return Loss		9 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

*Note: The actual frequency range coverage is wider.

Mechanical Specifications:

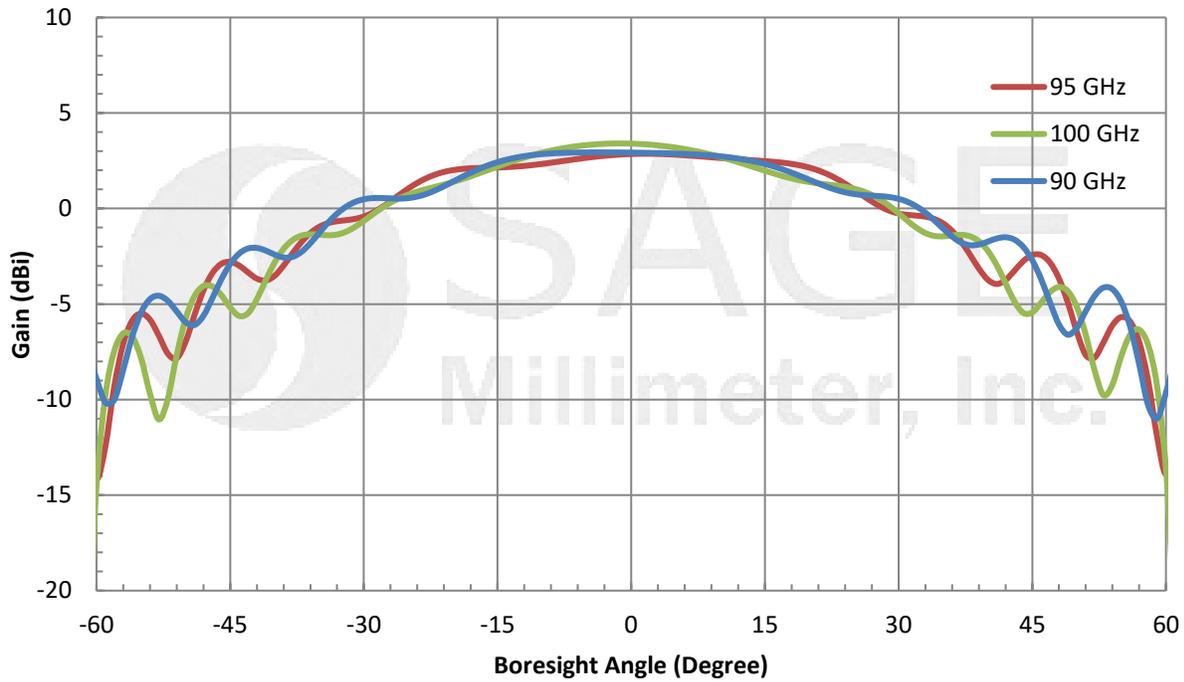
Item	Specification
Input	WR-10 Waveguide with UG-387/U-M Flange
Size	0.40" (H) x 1.04" (D)
Body Material	Aluminum
Lens Material	PTFE
Finish	Gold Plated
Weight	0.2 Oz
Outline	AO-W00-060



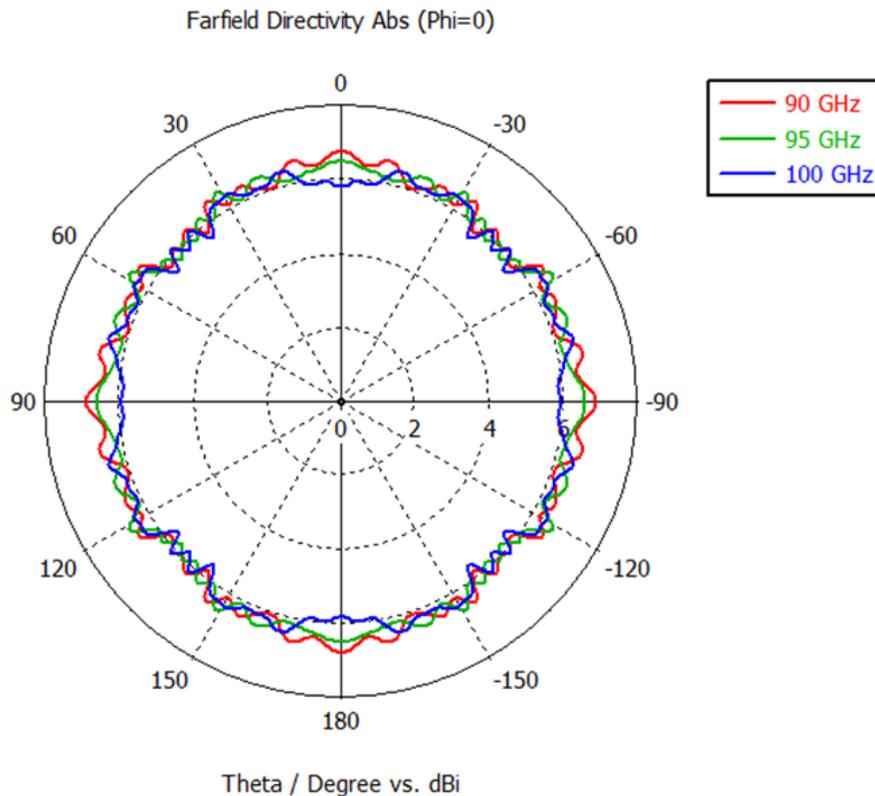


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Simulated E-Plane Patterns



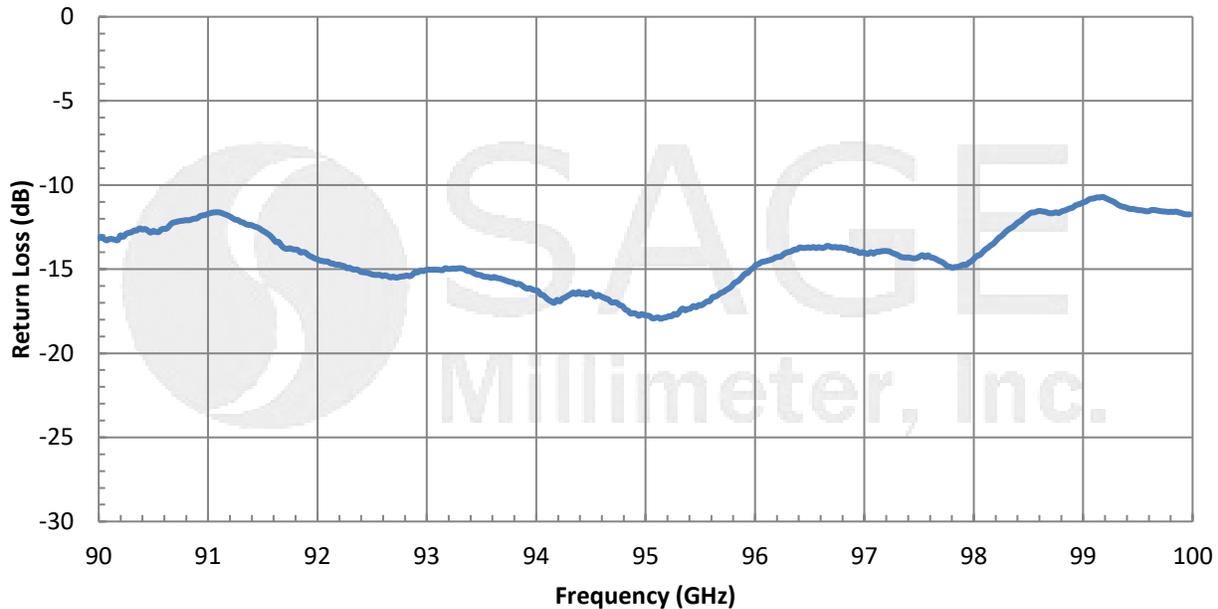
Simulated H-Plane Patterns



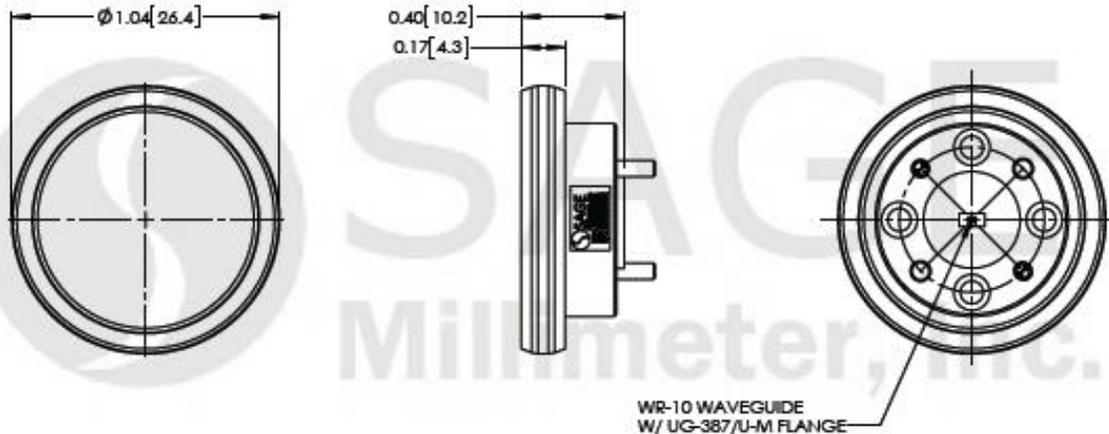


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Typical Return Loss vs. Frequency



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, slightly.
- All testing was performed under +25°C room temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

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



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