SAO-5037530230-15-S1

Rev 1.0

Full V-Band Omnidirectional Antenna, 360 Degree, 2.0 dBi Gain

Description:

Model SAO-5037530230-15-S1 is a full band, WR-15 omnidirectional antenna that operates between 50 and 75 GHz. This vertically polarized antenna offers 360 degrees azimuth coverage with a 2 dBi typical gain and ±2.0 dB nominal gain flatness. The antenna features a half power beamwidth of 30 degrees in the vertical direction. The antenna port is with WR-15 waveguide and standard UG385/U flange.

Features:

- Full Waveguide Band Operation
- 360˚ Azimuth Coverage
- 30˚ Vertical 3 dB Beamwidth
- Vertically Polarized
- Compact and Light Weight

Applications:

- IEEE 802.11 ab, WiGig
- Communication Links
- EW Systems
- Indoor Local Area Networks

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	50 GHz		75 GHz
Gain		2.0 dBi	
Azimuth Gain Variation		±2.0 dB	
Azimuth Beamwidth		360˚	
3 dB Vertical Beamwidth		30˚	
Return Loss		10 dB	
Power Handling		50 W (CW)	
Specification Temperature		+25 ˚C	
Operating Temperature	-40 ˚C		+85 ˚C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-15 Waveguide with UG-385/U Flange
Housing Material	Aluminum
Radome Material	PTFE
Finish	Gold Plated
Weight	0.2 Oz
Size	0.65” (H) x 1.14” (Ø)
Outline	AO-V02-030

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

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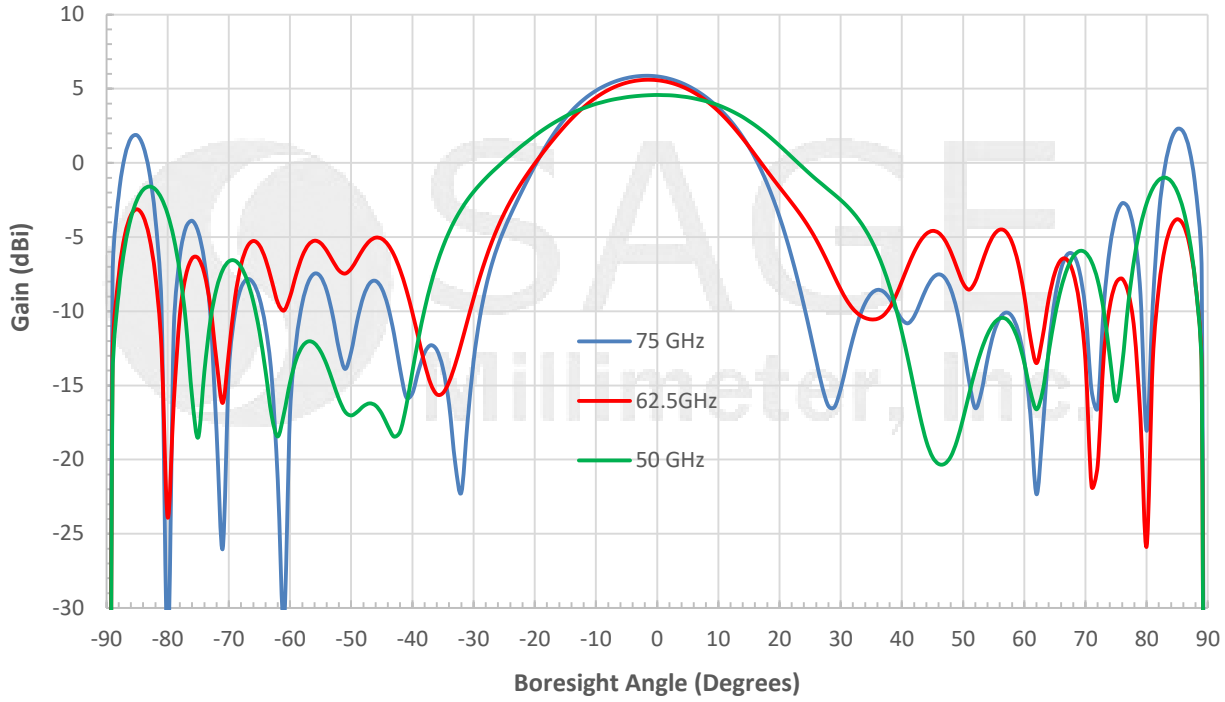
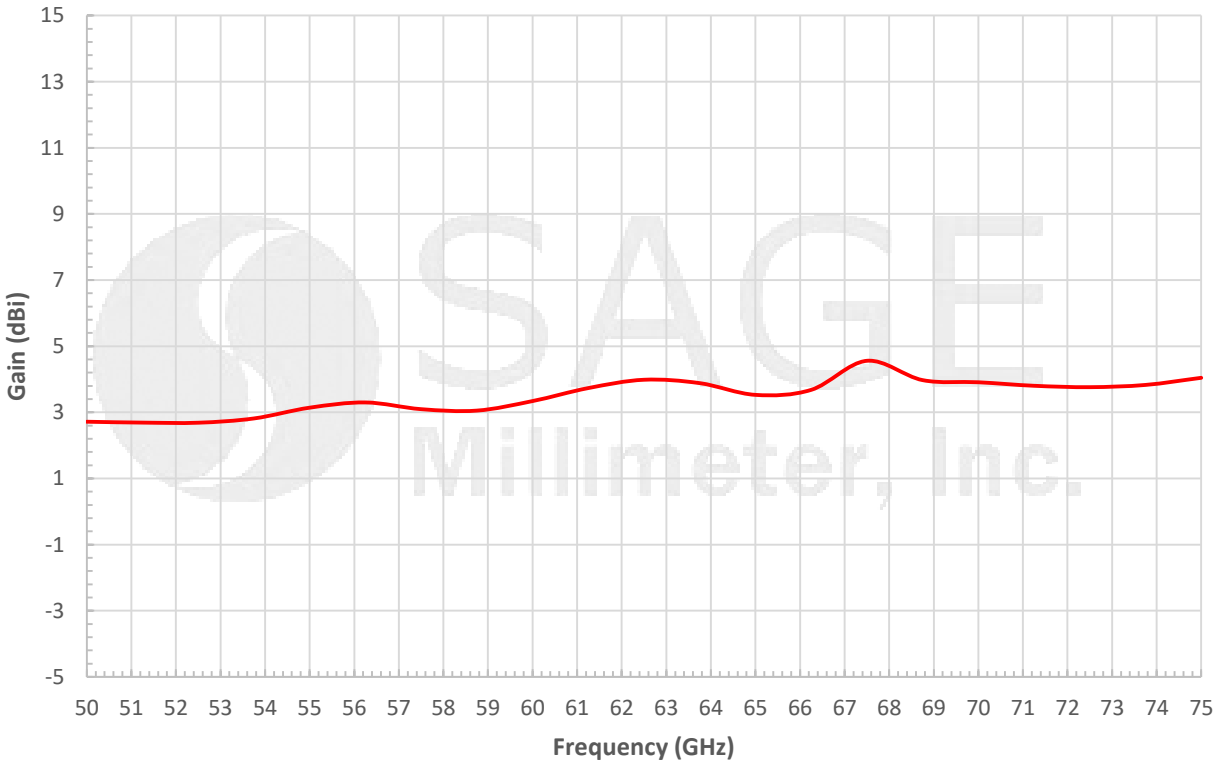
Simulated H-Plane Antenna Pattern @ 50GHz, 62.5GHz, 75 GHz



Typical Gain vs. Frequency



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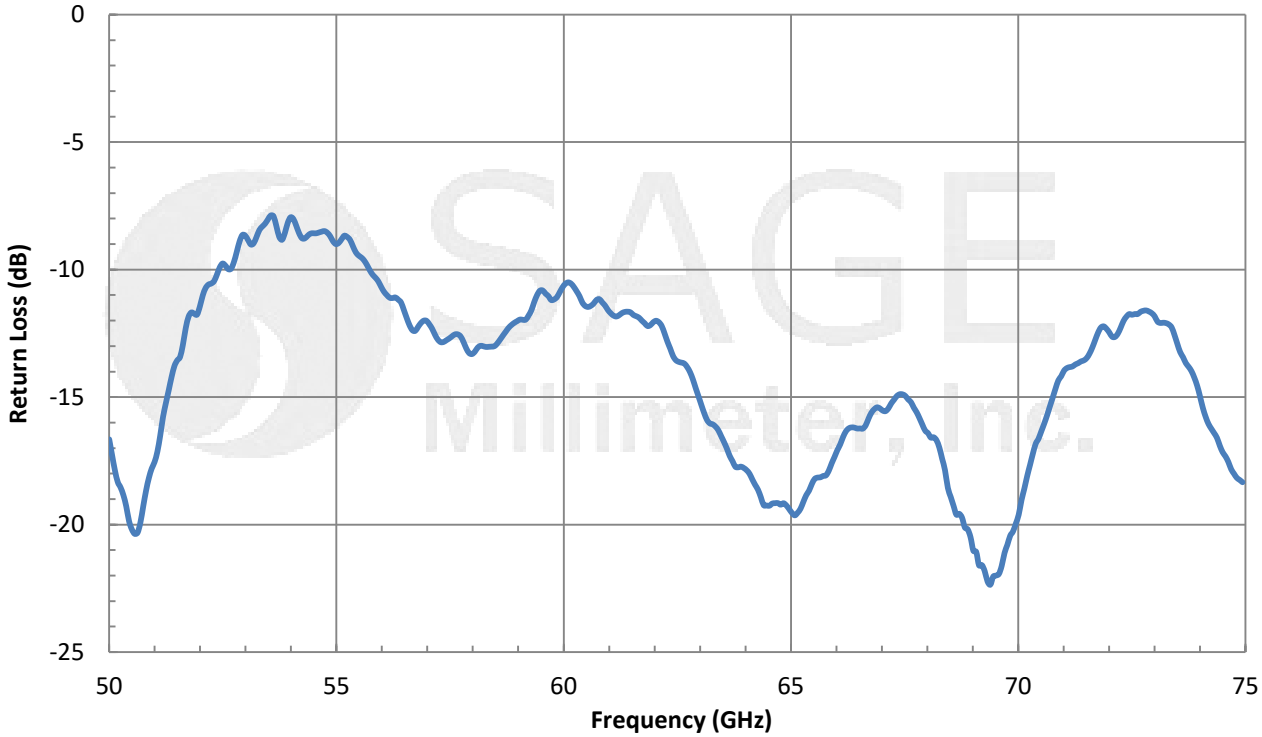
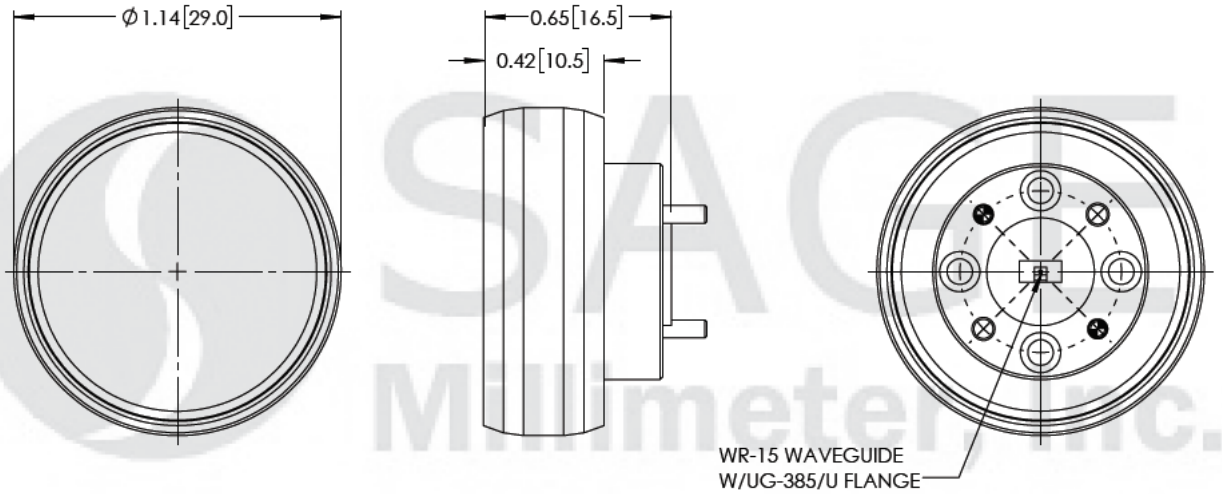
Measured Return Loss vs. Frequency



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



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Note:

- Return Loss data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under +25°C room temperature.
- Antenna Patterns and Gain 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 antenna will cause performance degradation and possible device damage.

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