



G-Band Spot-Focusing Lens Antenna, 1.0" Focal Length

Description:

Model SAQ-184010-05-S1 is a WR-05 spot-focusing lens antenna that delivers a typical 10 dB spot size of 0.076" at the focal length of 1.0", and a typical return loss of 14 dB across the full WR-05 waveguide operating bandwidth. The spot-focusing lens antenna is equipped with a WR-05 waveguide and UG-387/U-M flange as its antenna port. It supports linear polarized waveforms.



Features:

- Ridged Mechanical Configurations
- High Efficiency and Low loss
- Low Sidelobe Levels

Applications:

- Scientific Instruments
- Material Research Instruments

Electrical Specifications:

Parameter		Minimum	Typical	Maximum
Frequency		140 GHz		220 GHz
Focal Length			1.0"	
Peak to First Null	Spot Size		0.107"	
	Power Captured		83.8%	
10 dB Below Peak	Spot Size		0.076"	
	Power Captured		78.9%	
3 dB Below Peak	Spot Size		0.045"	
	Power Captured		47.4%	
Polarization		Linear		
Return Loss			14 dB	
Specification Temperature			+25°C	
Operating Temperature		-40°C		+85°C

Mechanical Specifications:

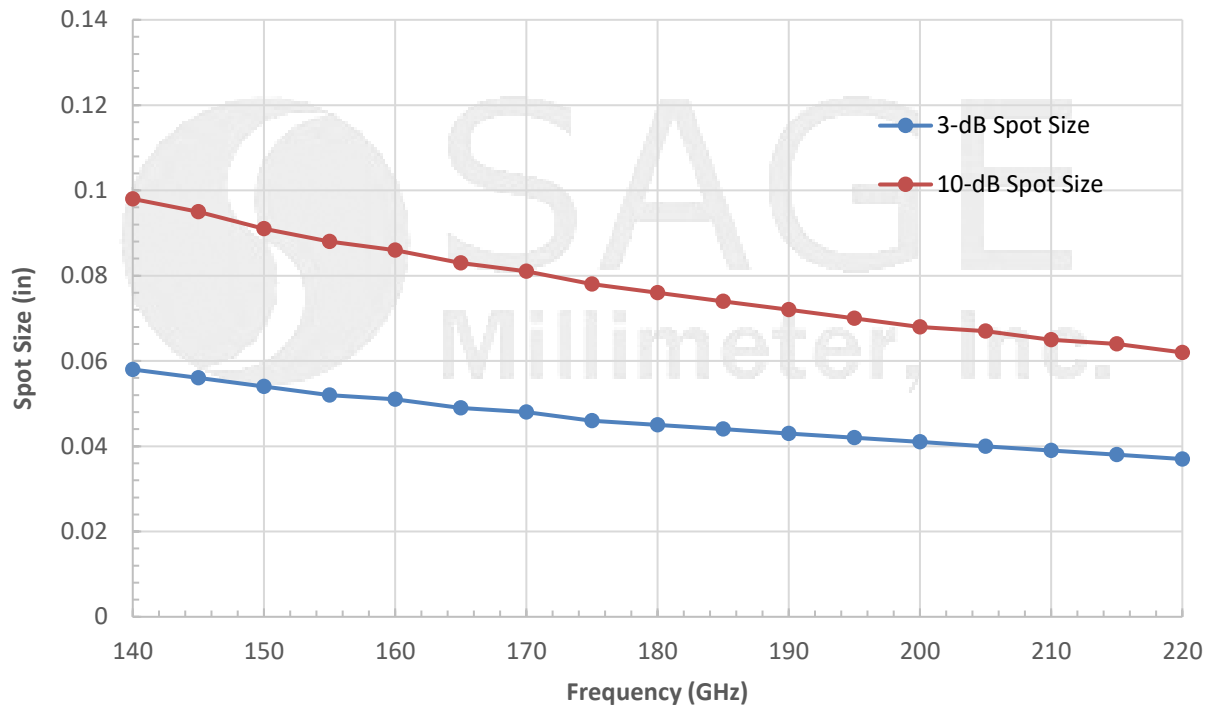
Item	Specification
Antenna Port	WR-05 Waveguide with UG-387/U-M Flange
Horn Material	Aluminum
Finish	Gold Plated
Weight	2.8 Oz
Lens Diameter	1.5"
Dimensions	3.80" (L) x 2.00" (Ø)
Outline	AQ-RG-1.5-C059



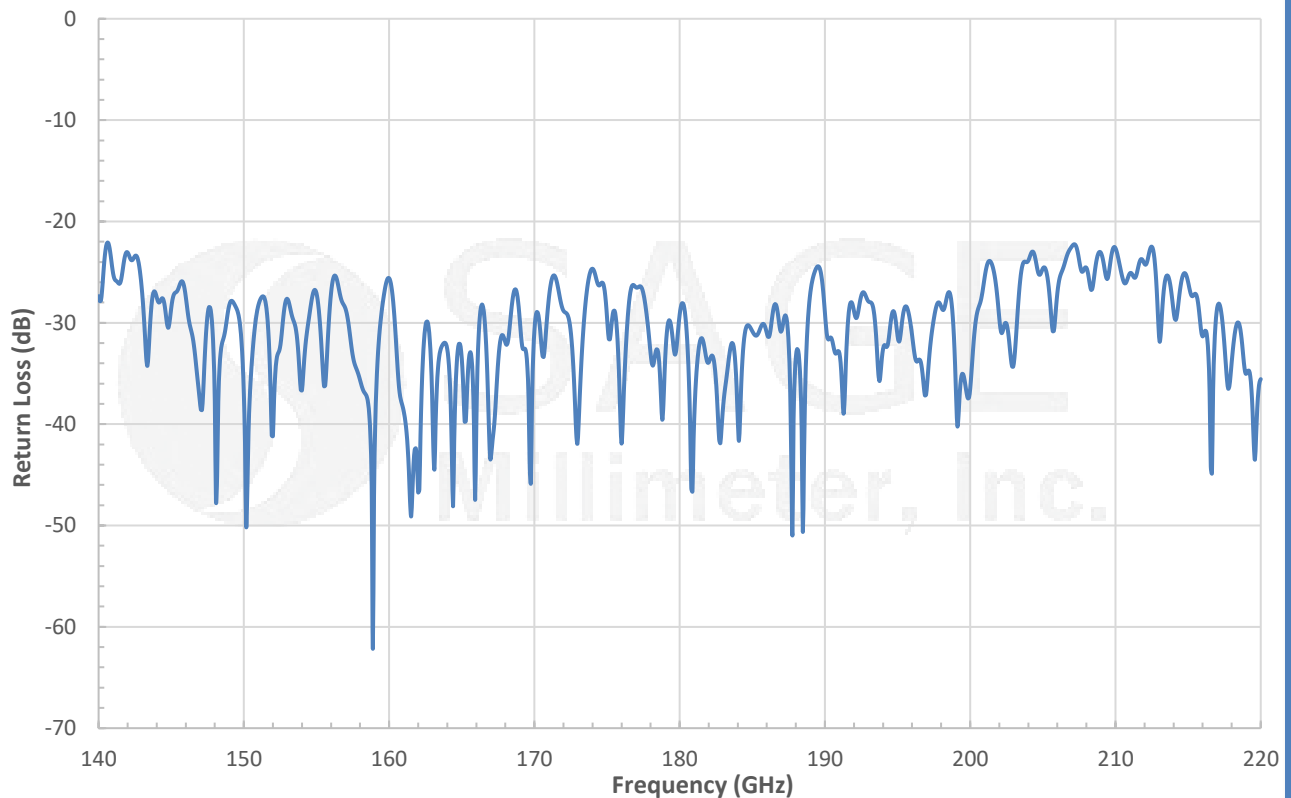


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Theoretical Spot Size vs. Frequency



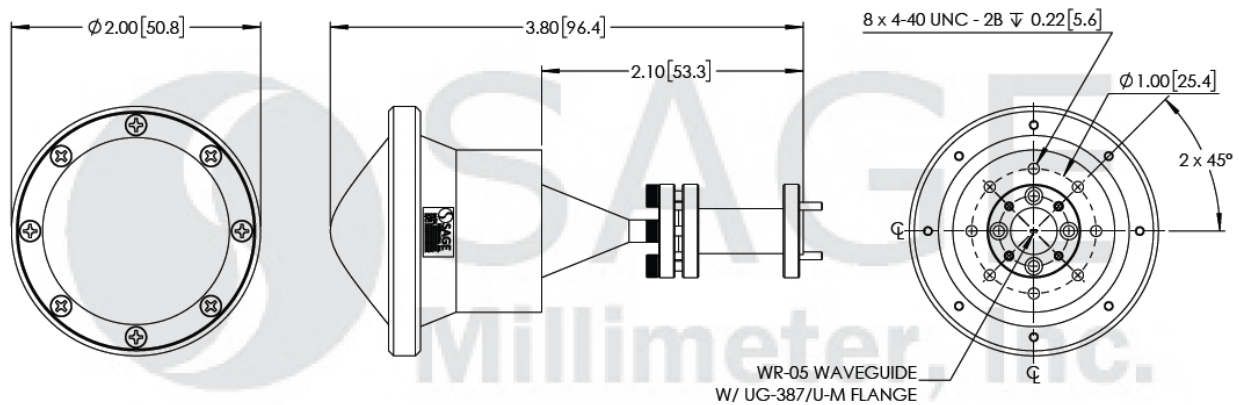
Simulated Return Loss vs. Frequency





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



Note:

- All data presented is simulated. Actual data may vary slightly.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

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

