



W-Band Spot-Focusing Lens Antenna, 1.7" Focal Length

Description:

Model SAQ-903017-10-S1 is a WR-10 spot-focusing lens antenna that delivers a typical 10 dB spot size of 0.2" at the focal length of 1.7", and a typical return loss of 15 dB across the full WR-10 waveguide operating bandwidth. The spot-focusing lens antenna is equipped with a WR-10 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		75 GHz		110 GHz
Focal Length			1.7"	
Peak to First Null	Spot Size		0.28"	
	Power Captured		83%	
10 dB Below Peak	Spot Size		0.20"	
	Power Captured		78.9%	
3 dB Below Peak	Spot Size		0.11"	
	Power Captured		47%	
Polarization		Linear		
Return Loss			15 dB	
Specification Temperature			+25°C	
Operating Temperature		-40°C		+85°C

Mechanical Specifications:

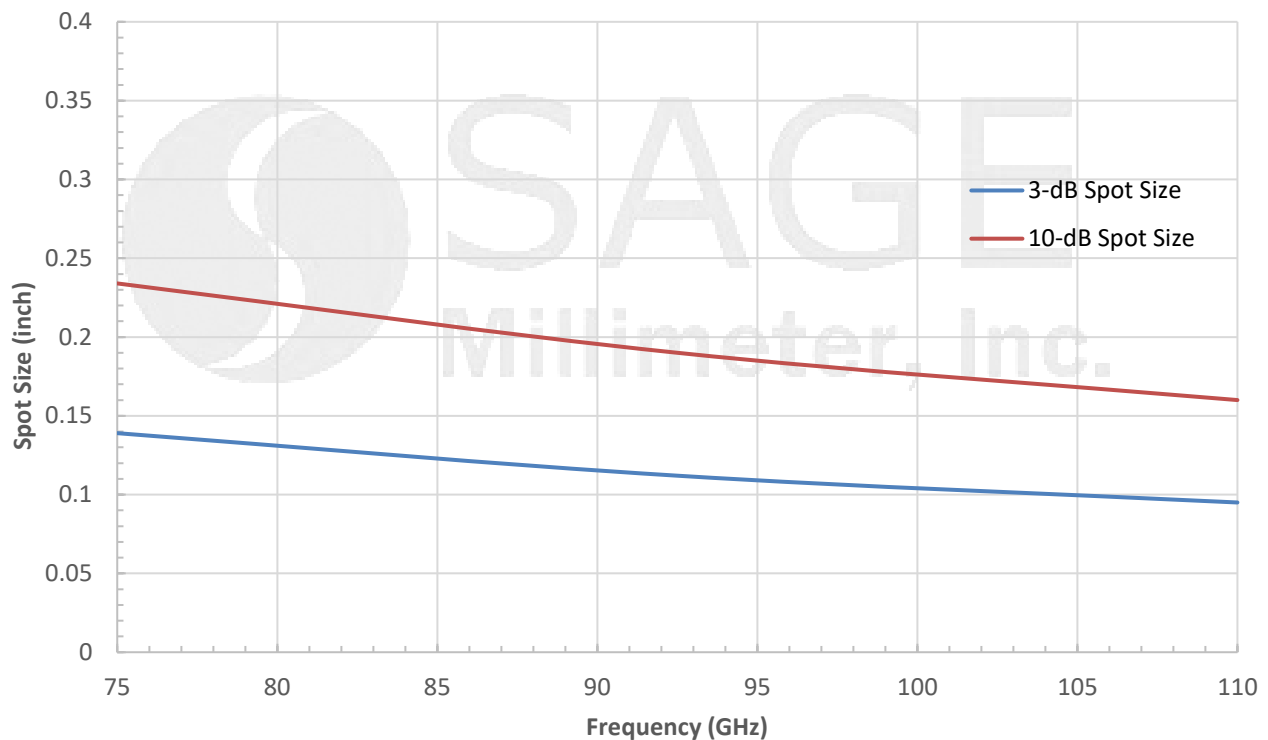
Item	Specification
Antenna Port	WR-10 Waveguide with UG-387/U-M Flange
Horn Material	Aluminum
Finish	Gold Plated
Weight	3.5 Oz
Lens Diameter	2.0"
Dimensions	4.38" (L) x 2.52" (Ø)
Outline	AQ-RW-2.0-C110



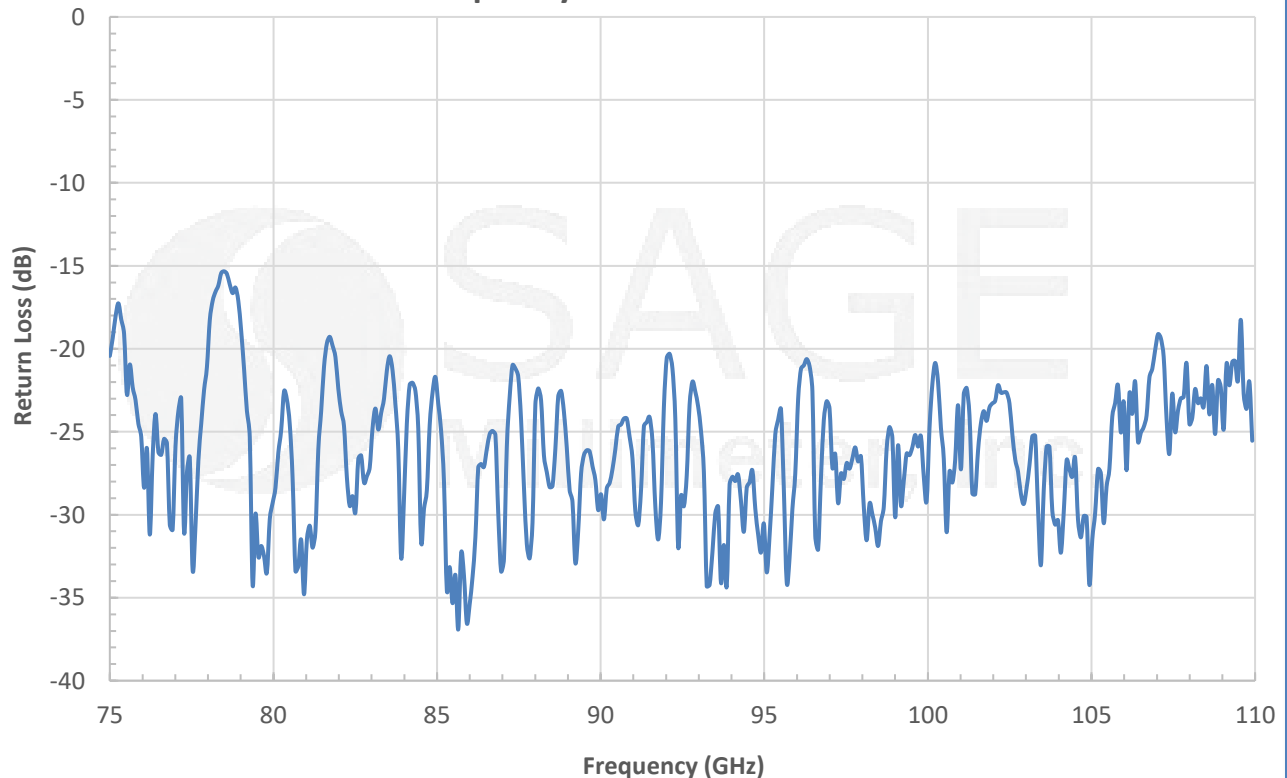


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Theoretical Spot Size vs. Frequency

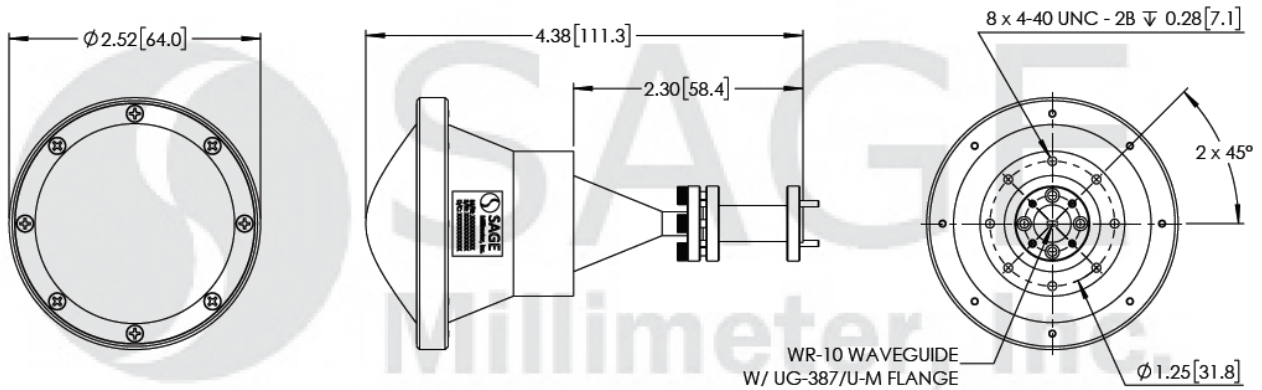


Measured Return Loss vs. Frequency



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



Note:

- Return Loss Data is collected from a sample lot. Actual data may vary slightly.
- All testing was performed under +25 °C room temperature.
- Theoretical Spot Size 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.

