



X-Band Spot-Focusing Lens Antenna, 10 GHz, Focal Length 10 cm

Description:

Model SAQ-103039-938-S1 is an X-band spot-focusing lens antenna that delivers a 10 dB spot size of 2.09" at a focal length of 3.94". The antenna employs a low loss lens to offer excellent aperture efficiency at 10 GHz. The lens antenna is equipped with a 0.938" diameter circular waveguide and UG-39/U-M flange as its input port. It supports linear and circular polarized waveforms.



Features:

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

Applications:

- Material Property Measurement Systems

Electrical Specifications:

Parameter		Minimum	Typical	Maximum
Frequency		9.5 GHz	10.0 GHz	10.5 GHz
Focal Length			3.94"	
Peak to First Null	Spot Size		3.04"	
	Power Captured		83.8%	
10 dB Below Peak	Spot Size		2.09"	
	Power Captured		78.9%	
3 dB Below Peak	Spot Size		1.21"	
	Power Captured		47.4%	
Polarization			Linear	
Return Loss			21 dB	
Specification Temperature			+25°C	
Operation Temperature		-45°C		+85°C

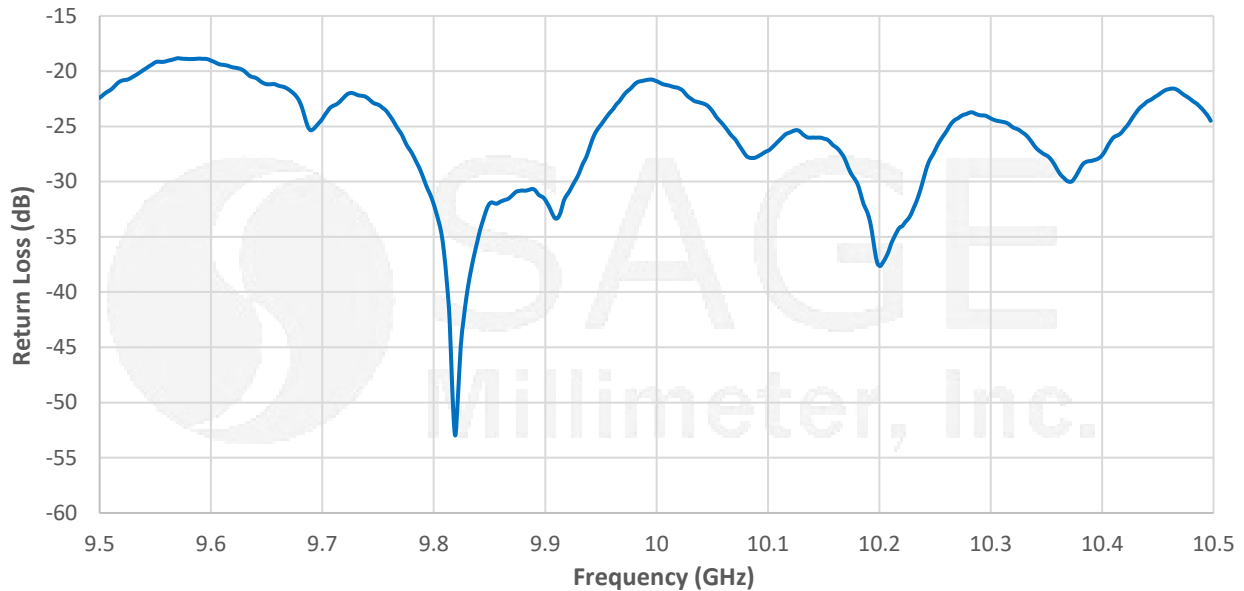
Mechanical Specifications:

Item	Specification
Antenna Port	0.938" Diameter Circular Waveguide with UG-39/U Flange
Horn Material	Aluminum
Finish	Chem Film
Weight	10 Oz
Lens Diameter	4.60"
Dimensions	5.00" (L) x 4.58" (Ø)
Outline	AQ-CX-4.0-C938

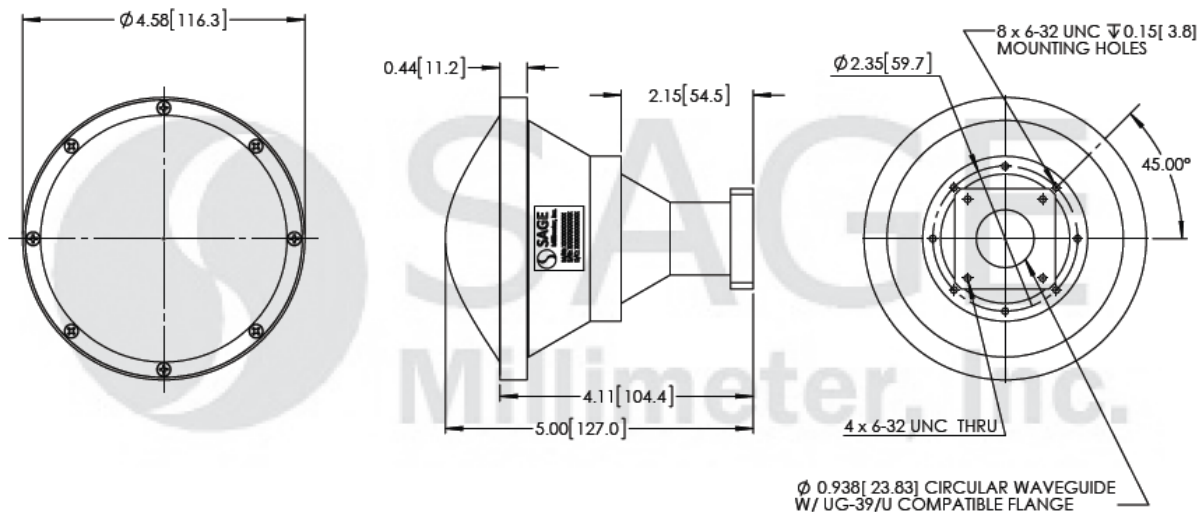


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Measured Return Loss vs. Frequency



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



Note:

- All data 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:

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

