



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

Description:

Model SAQ-943010-10-S1 is a W-band, spot-focusing lens antenna that delivers a 10 dB spot size of 0.18" diameter at the focal length of 1.0". The antenna employs a low loss lens to offer excellent aperture efficiency in full W band frequency range of 75 to 110 GHz. The lens antenna is equipped with a standard WR-10 waveguide and UG-387/U-M flange as its input port. It supports linear polarized waveforms.



Features:

- Rugged Mechanical Configuration
- High Efficiency and Low loss
- Full W Band Coverage

Applications:

- Material Property Measurement Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	75 GHz	94 GHz	110 GHz
Focal Length		1.0"	
Spot Size @ 10 dB Below Peak		0.18"	
Polarization		Linear	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

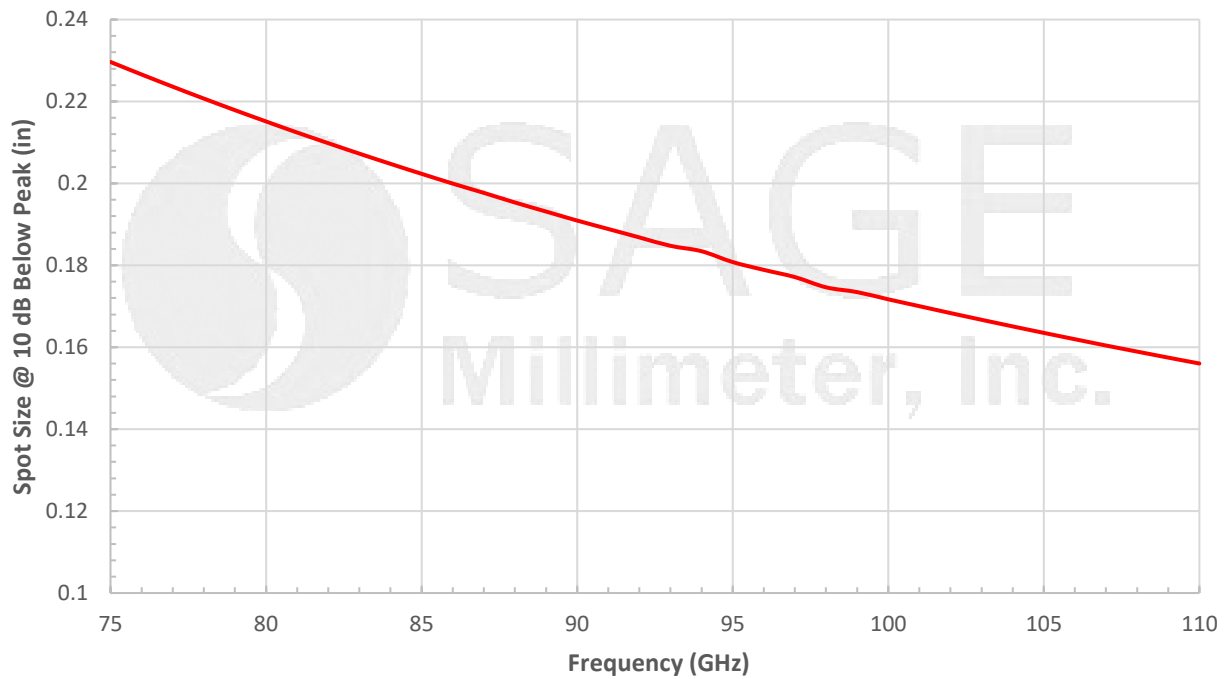
Item	Specification
Antenna Port	WR-10 Waveguide with UG-387/U-M Flange
Horn Material	Aluminum
Finish	Gold Plated
Weight	7.4 Oz
Lens Diameter	3.5"
Dimensions	3.21" (L) x 1.70" (Ø)
Outline	AQ-RW-1.2-C094



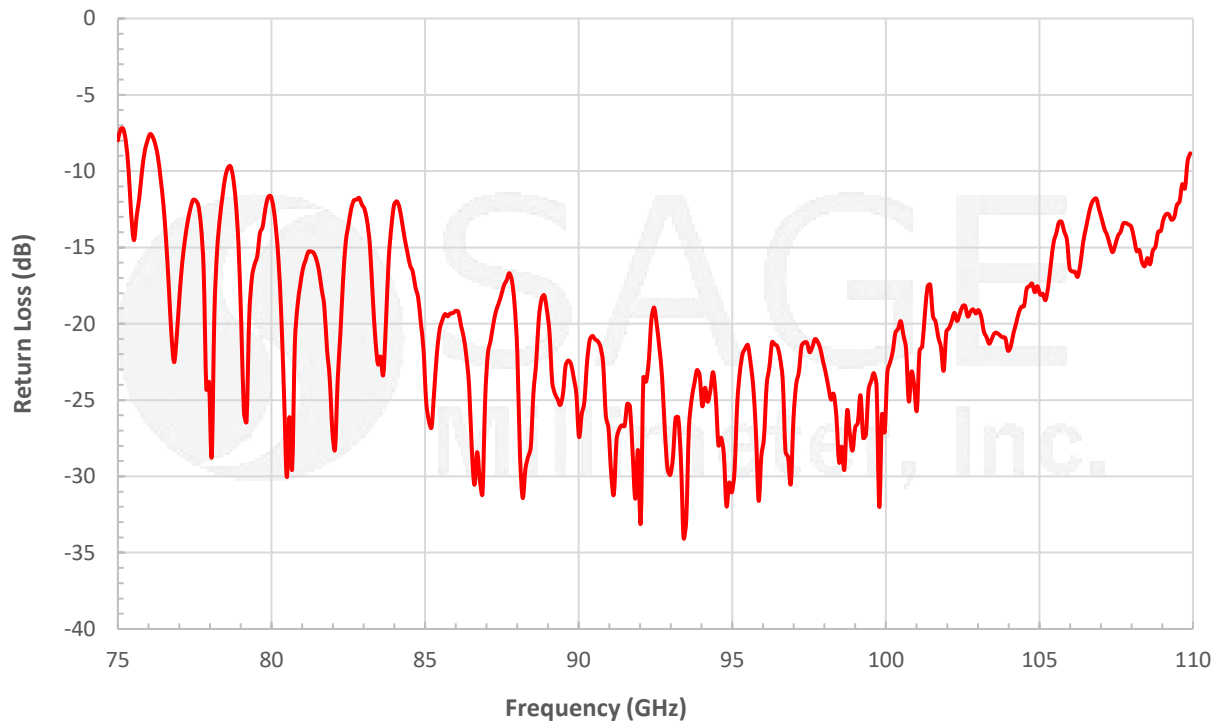


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Typical Spot Size @10 dB Below Peak vs. Frequency

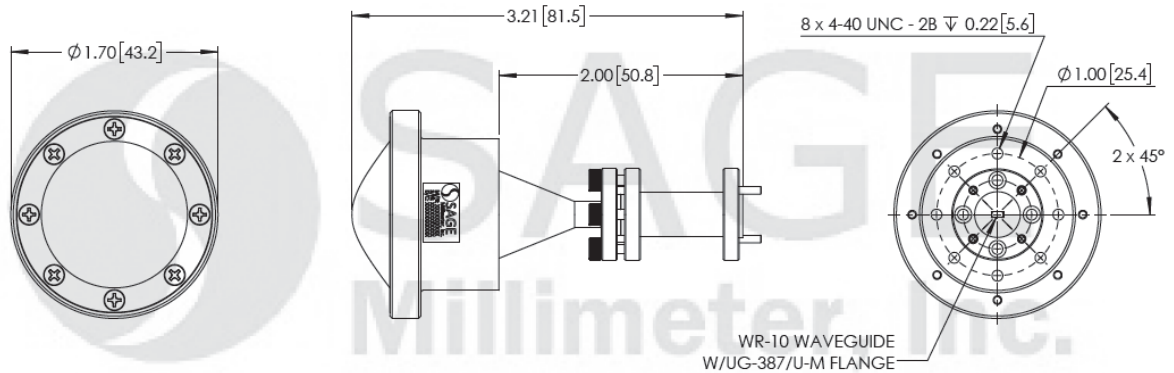


Typical Return Loss vs. Frequency



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



Note:

- Spot size data is simulated. Actual data may vary.
- Return loss data is collected from a sample lot. Actual data may vary unit to unit.
- 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.

