

SAQ-603071-15-S1

V-Band Spot-Focusing Lens Antenna, 60 GHz

SAQ-603071-15-S1 is a V-Band spot-focusing lens antenna that delivers a 10 dB spot size of 0.81" at the focal length of 7.09". The antenna employs a low loss lens to offer excellent aperture efficiency at 60 GHz. The spot-focusing lens antenna is equipped with a WR-15 waveguide with UG-385/U anti-cocking flange as its antenna port. It supports linear polarized waveforms.



Electrical Specifications:

Parameter		Minimum	Typical	Maximum
Frequency			60 GHz	
Focal Length			7.09"	
Peak to First Null	Spot Size		1.14"	
	Power Captured		83.8%	
10 dB Below Peak	Spot Size		0.81"	
	Power Captured		78.9%	
3 dB Below Peak	Spot Size		0.48"	
	Power Captured		47.4%	
Polarization			Linear	
Specification Temperature			+25 °C	
Operating Temperature		-45 °C		+85 °C

Mechanical Specifications:

Item	Specification
Antenna Port	WR-15 Waveguide with UG-385/U Anti-Cocking Flange
Horn Material	Aluminum/HDPE
Finish	Gold Plated
Weight	9.7 Oz
Lens Diameter	3.0"
Dimensions	4.79" (L) x 3.50" (Ø)
Outline	AQ-RV-3.0-A

ECCN

EAR99

FEATURES

- Rugged Mechanical Configurations
- Light Weight
- High Efficiency and Low Loss

APPLICATIONS

- Material Property Measurement Systems

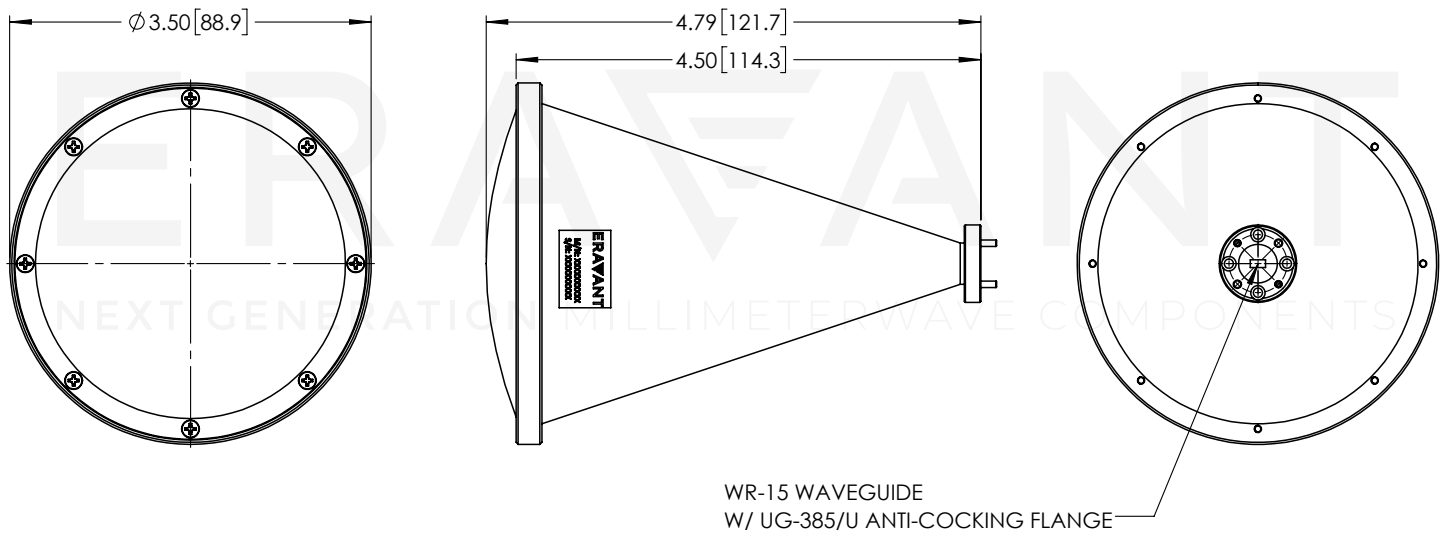
SUPPLEMENTAL DETAILS



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Mechanical Outline:

Unless otherwise specified, all dimensions are in inches [millimeters])



NOTE:

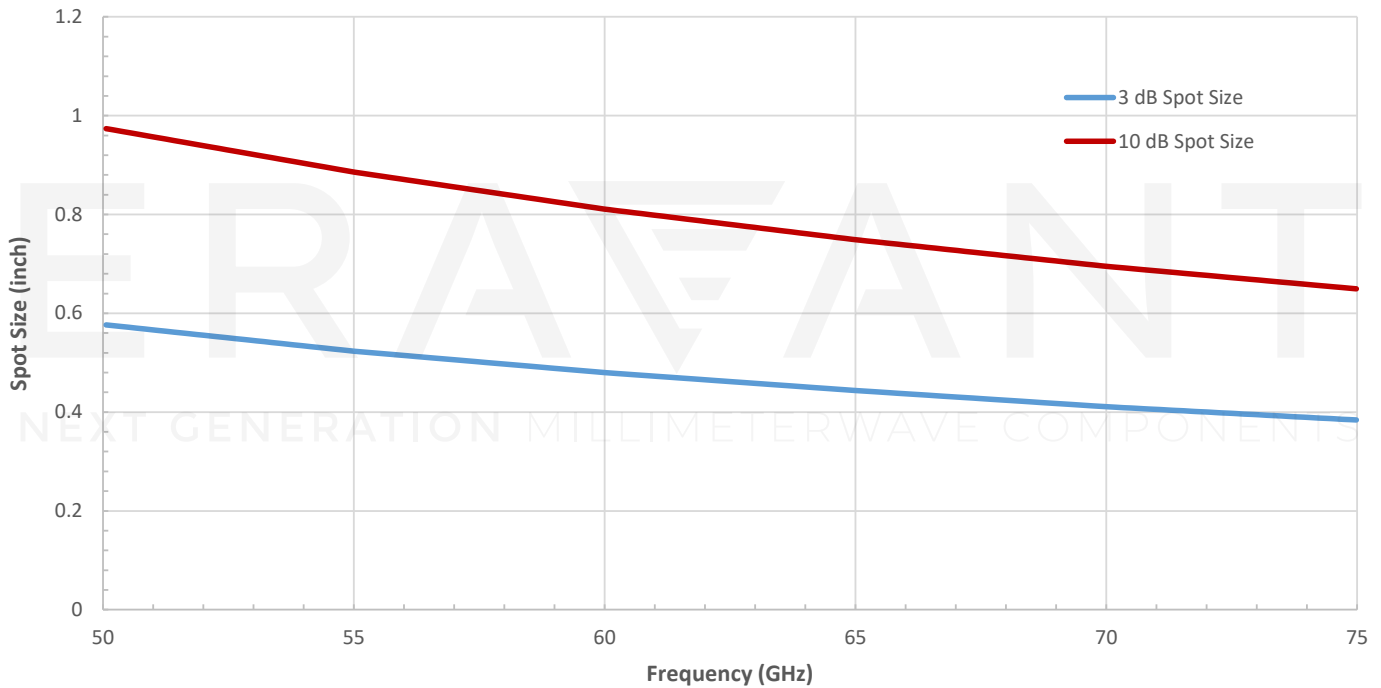
- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Any foreign objects in the antenna will cause performance degradation and possible device damage.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model [SCH-06004-S1](#) is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model [SCH-08008-S1](#) is highly recommended.

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Theoretical Spot Size vs. Frequency



Focal Length Diagram:

Focal Length is defined in the diagram below with a pair of spot-focusing lens antennas

