

SAQ-243039-368-S1

K-Band Spot-Focusing Lens Antenna, 24 GHz, 3.94" Focal Length

SAQ-243039-368-S1 is a K-Band spot-focusing lens antenna that delivers a 10 dB spot size of 1.15" at the focal length of 3.94". The antenna employs a low loss lens to offer excellent aperture efficiency at 24 GHz. The spot-focusing lens antenna is equipped with a 0.368" diameter circular waveguide with UG-595/U flange as its antenna port. It supports linear and circular polarized waveforms.



Electrical Specifications:

Parameter		Minimum	Typical	Maximum
Frequency			24 GHz	
Focal Length			3.94" [10 cm]	
Peak to First Null	Spot Size		1.63"	
	Power Captured		83.8%	
10 dB Below Peak	Spot Size		1.15"	
	Power Captured		78.9%	
3 dB Below Peak	Spot Size		0.67"	
	Power Captured		47.4%	
Polarization		Linear and Circular		
Specification Temperature			+25 °C	
Operating Temperature		-45 °C		+85 °C

Mechanical Specifications:

Item	Specification
Antenna Port	Ø 0.368" Circular Waveguide with UG-595/U Flange
Horn/Lens Material	Aluminum/HDPE
Finish	Chem Film
Weight	3.0 Oz
Lens Diameter	2.95"
Dimensions	2.90" (L) x 3.24" (Ø)
Outline	AQ-CK-2.95-C368

ECCN

EAR99

FEATURES

- Rugged Mechanical Configurations
- High Efficiency and Low Loss

APPLICATIONS

- Material Property Measurement Systems

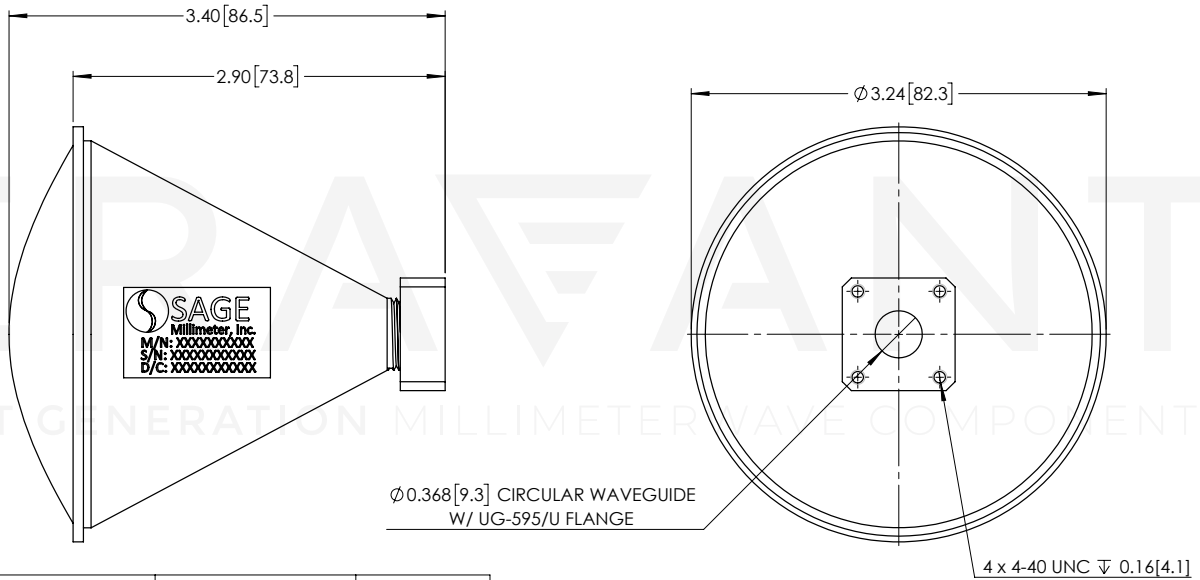
SUPPLEMENTAL DETAILS



SAQ-243039-368-S1

Mechanical Outline:

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



	SPOT SIZE DIAMETER	POWER CAPTURED
To the First Null	1.63 in [4.14 cm]	83.8%
10 dB Below the Peak	1.15 in [2.92 cm]	78.9%
3 dB Below the Peak	0.67 in [1.70 cm]	47.4%

NOTE:

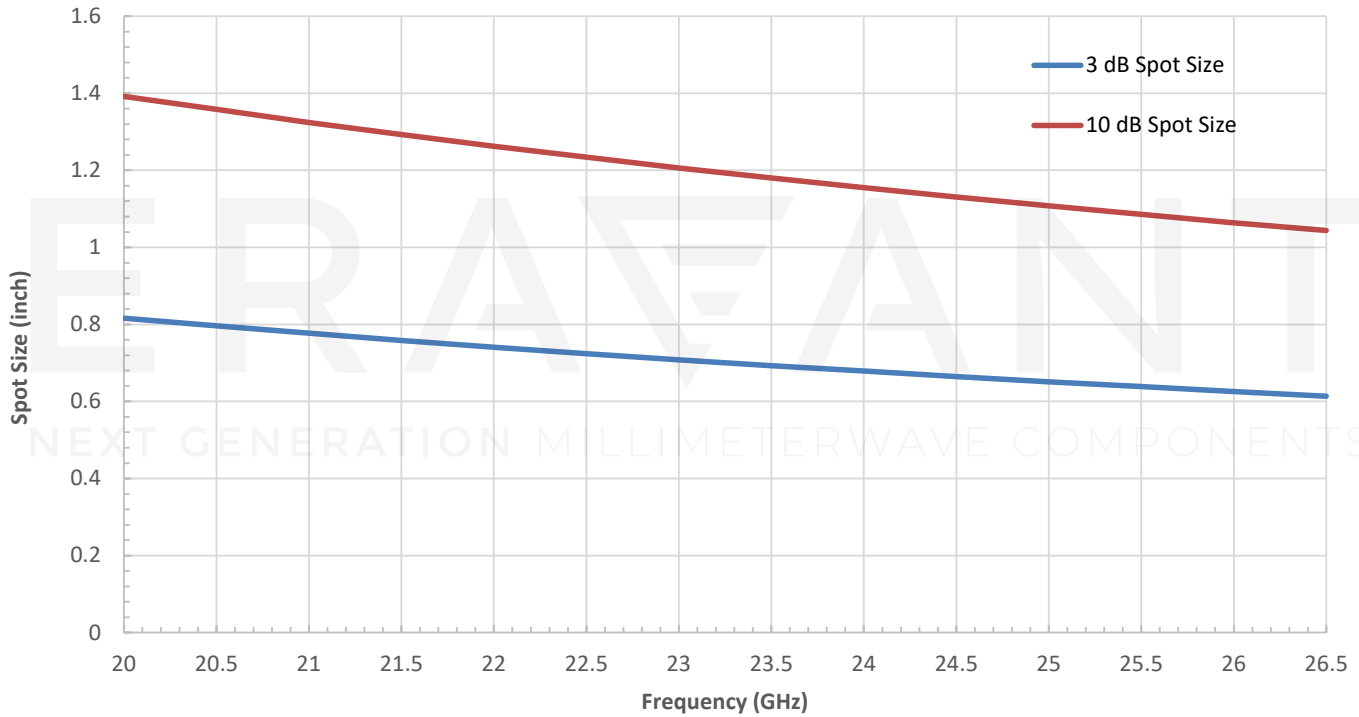
- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right 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.

SAQ-243039-368-S1

Theoretical Spot Size vs. Frequency



Focal Length Diagram:

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

