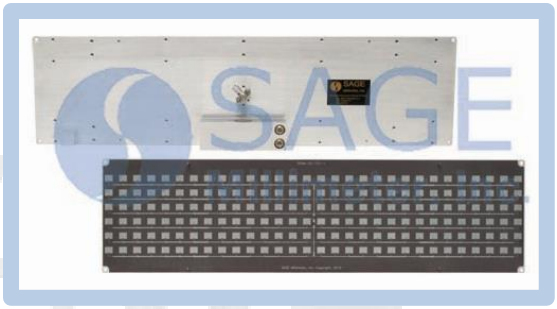
SAM-1731832503-SF-L1

Rev. 1.3

Ku Band Microstrip Patch Array Antenna, 14° x 3°

Description:

Model SAM-1731832503-SF-L1 is a linear polarized, 17.55 GHz microstrip patch array antenna. The antenna implements a series-fed power distribution to achieve low sidelobe levels. The antenna has a gain of 25 dBi and a beamwidth of 14 degrees vertically and 3 degrees horizontally, with a -15 dB sidelobe suppression level. The antenna is constructed with a high performing, low loss soft microwave substrate to achieve the best performance in the class. The RF interface is a female SMA connector.



Features:

- Compact Size and Center Fed
- Low Sidelobes
- Low Cost in Volume

Applications:

- Radar Systems
- Communication Systems
- Sensor Heads

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	17.40 GHz	17.55 GHz	17.70 GHz
Gain		25.0 dBi	
3 dB Beamwidth	14° (Vertical, E Plane) x 3° (Horizontal, H Plane)		
Sidelobe Level		-15 dB	
Polarization	Linear; Vertical		
Return Loss		9.0 dB	
Specification Temperature		+25 °C	
Operation Temperature	-40 °C		+85 °C

Mechanical Specifications:

Item	Specifications
Antenna Port	S(F) Connector
Number of Elements	30 (H) x 6 (V)
Baseplate Material	Aluminum
Patch Finish	Immersion Tin
Size	14.90” (L) x 4.00” (H) x 1.00” (W)
Outline	AM-C6-0314

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Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

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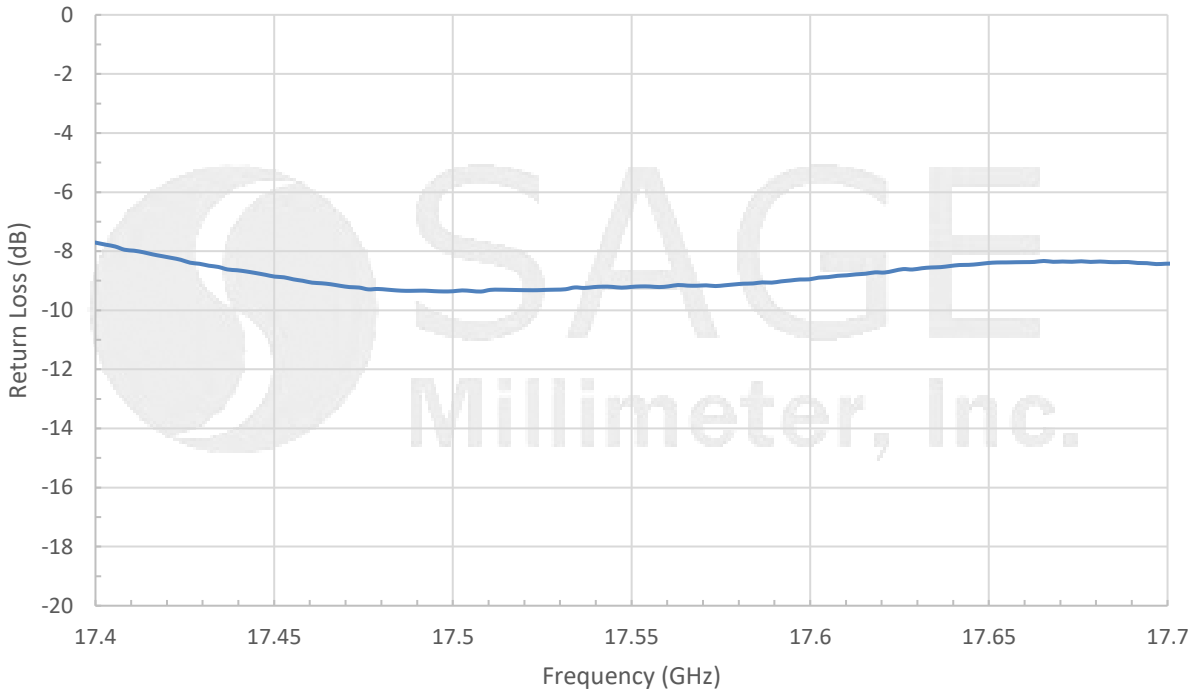
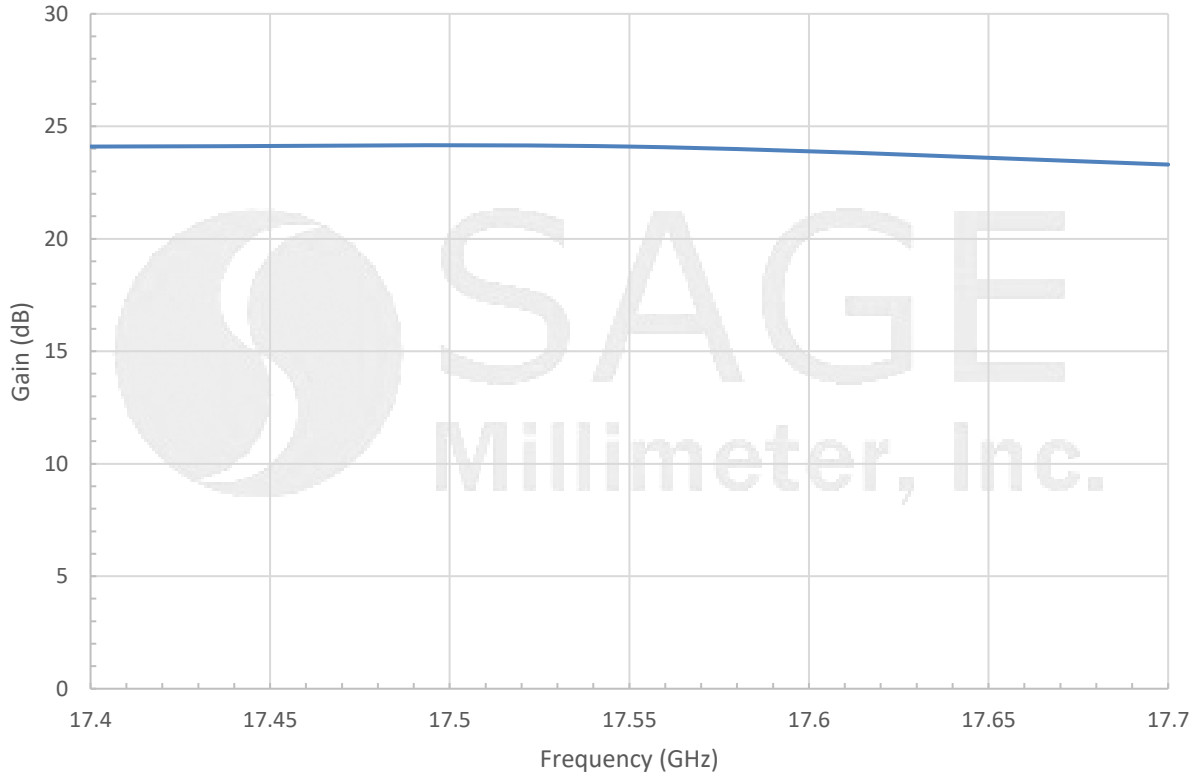
Typical Return Loss vs. Frequency



Typical Gain vs. Frequency



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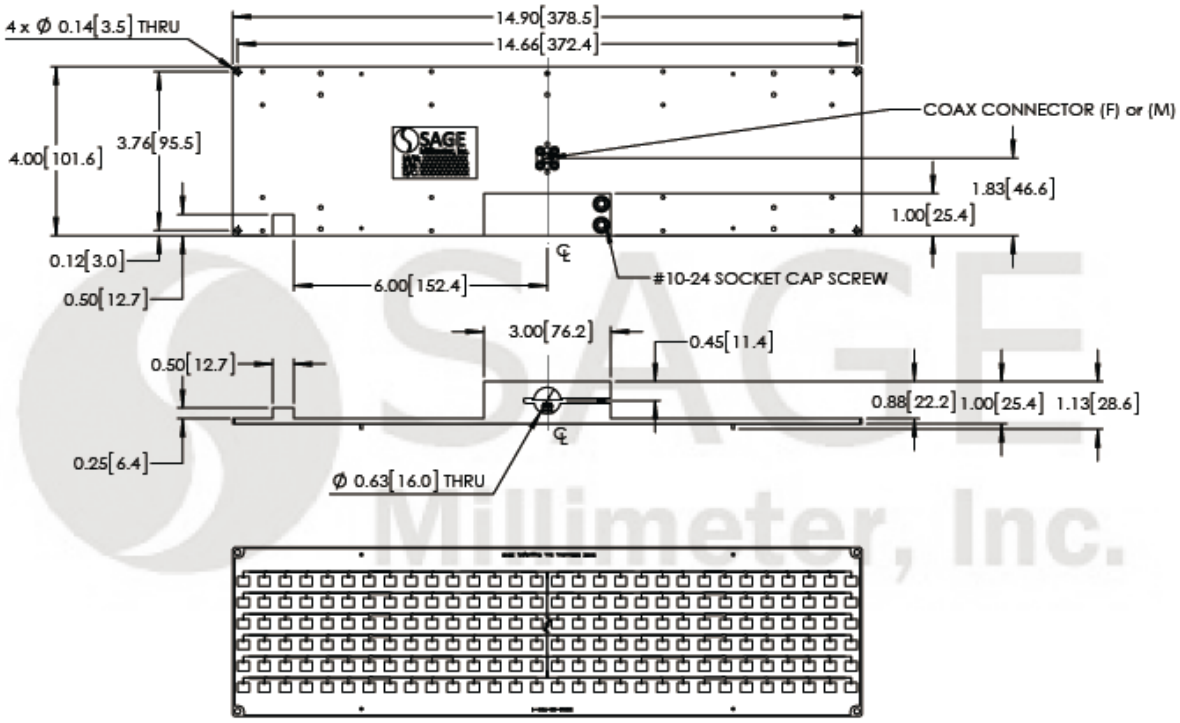
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches)



Note:

- All data are presented using a limited sample lot. Actual data may vary unit to unit.
- All testing was performed under +25˚C case temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Foreign objects in the connector will affect device performance and may damage the antenna.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.92 ± 0.05 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

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