SAM-1731731510-SF-L1

Rev 1.0

Ku-Band Microstrip Patch Array Anntenna, 17.1 to 17.3 GHz, 15 dBi

Description:

Model SAM-1731731510-SF-L1 is a linear polarized, 17.2 GHz microstrip patch array antenna. The antenna implements a series-fed power distribution to achieve low side lobe levels. The antenna has a gain of 15 dBi and a beamwidth of 75 degrees vertically and 10 degrees horizontally, with a -15 dB side lobe 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 SMA(F) connector.

Features:

- Compact Size and Center Fed
- Low Side Lobes
- Low Cost in Volume

Applications:

- Radar Systems
- Communication Systems
- Sensor Heads

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	17.1 GHz	17.2 GHz	17.3 GHz
Gain		15 dBi	
3 dB Beamwidth	75° (Vertical, E Plane) x 10° (Horizontal, H Plane)		
Side Lobe 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	SMA (F) Connector
Number of Elements	8 (H) x 1 (V)
Baseplate Material	Aluminum
Patch Finish	Immersion Tin
Size	4.50” (L) x 0.14” (H) x 0.65” (W)
Outline	AM-C6-1075

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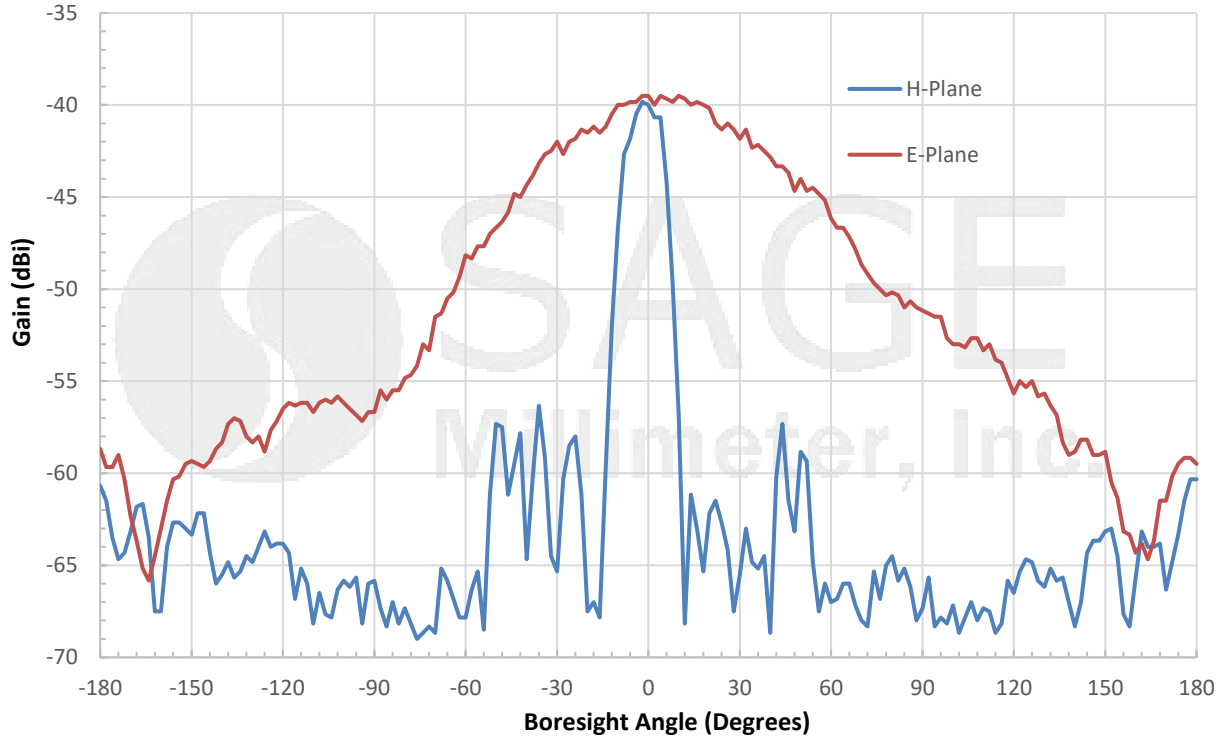
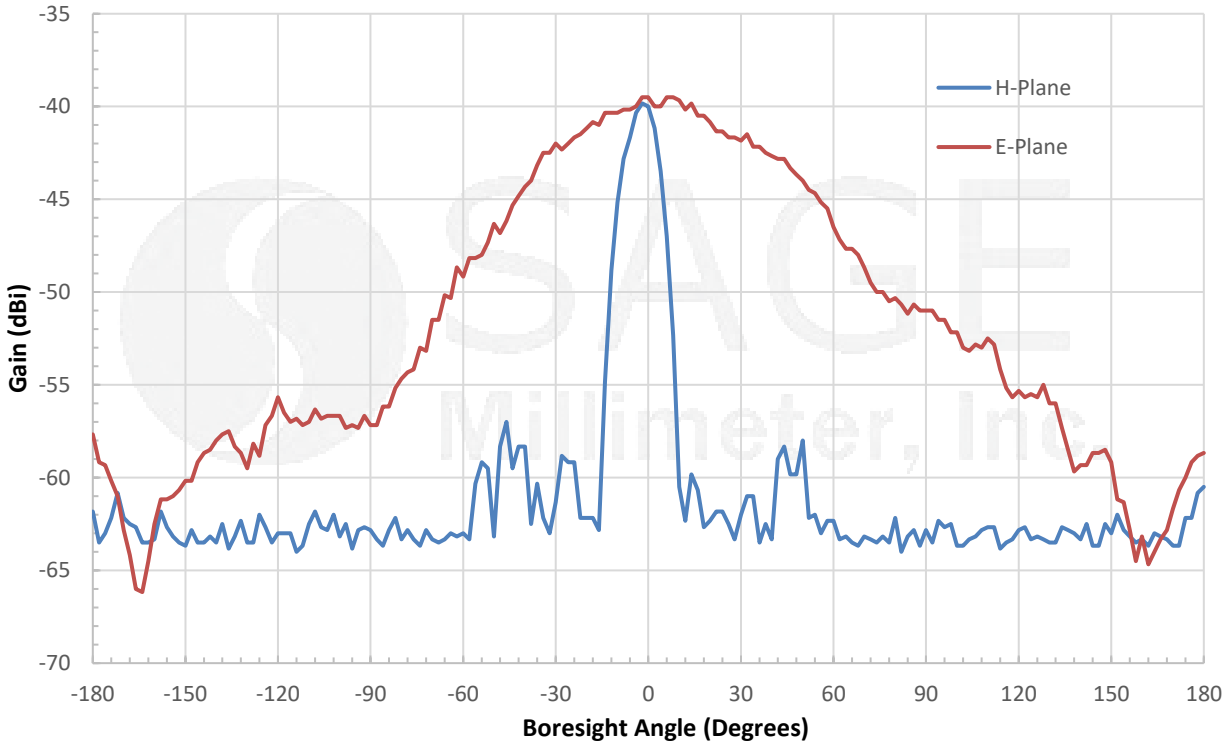
Antenna Pattern @ 17.1 GHz



Antenna Pattern @ 17.2 GHz



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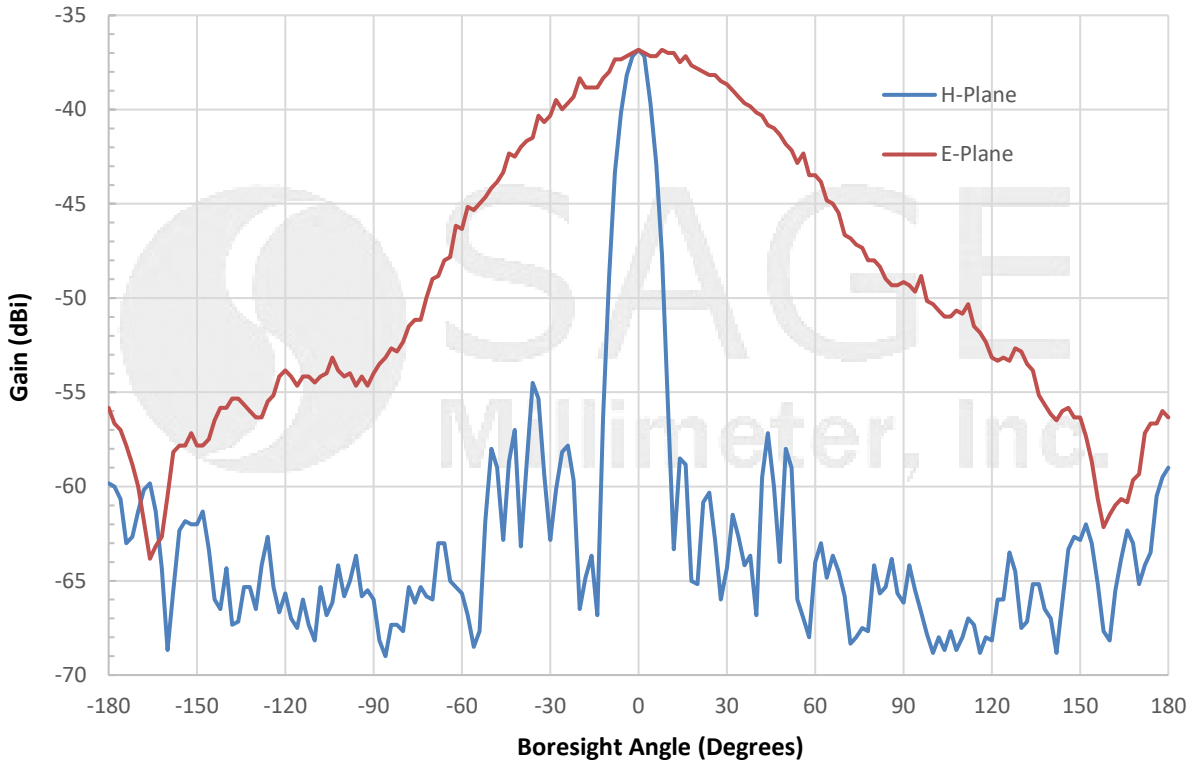
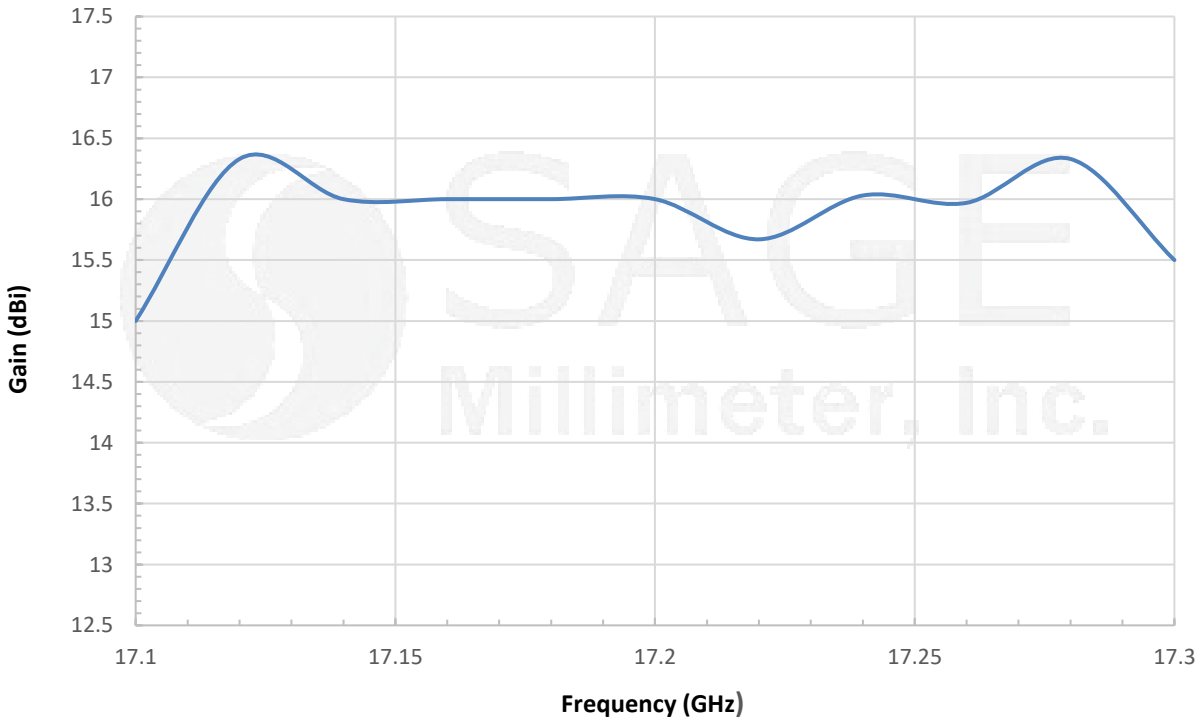
Antenna Pattern @ 17.3 GHz



Gain vs. Frequency



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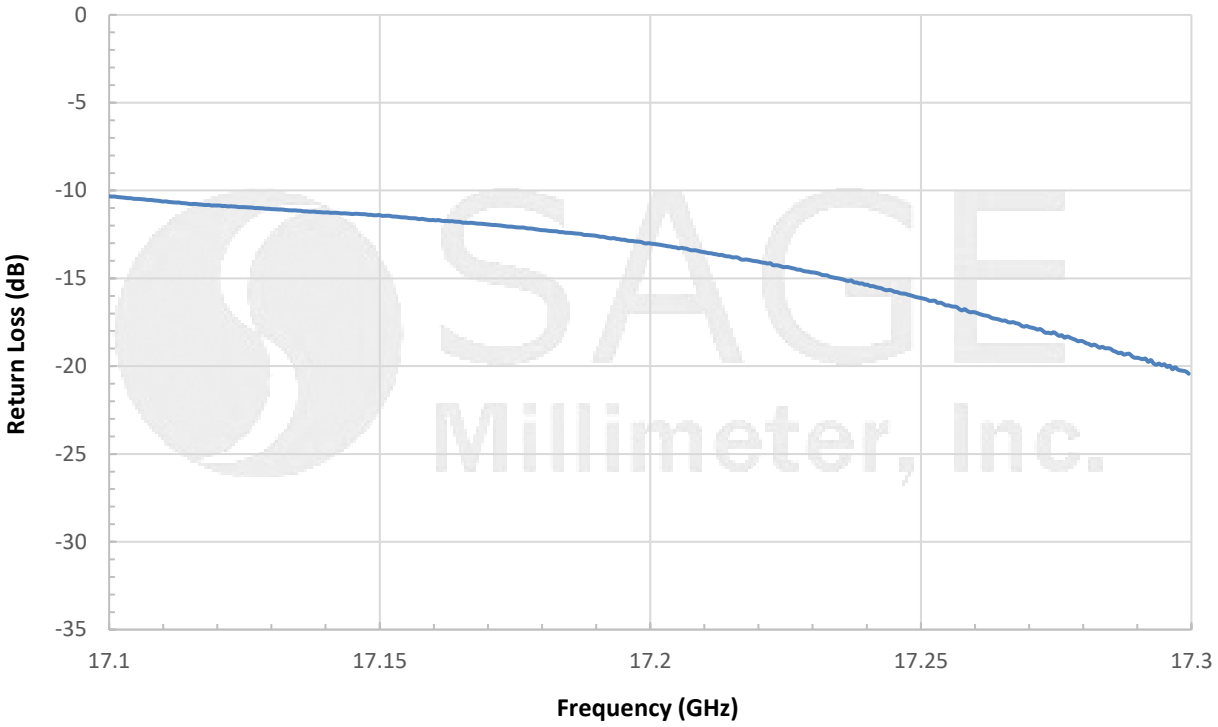
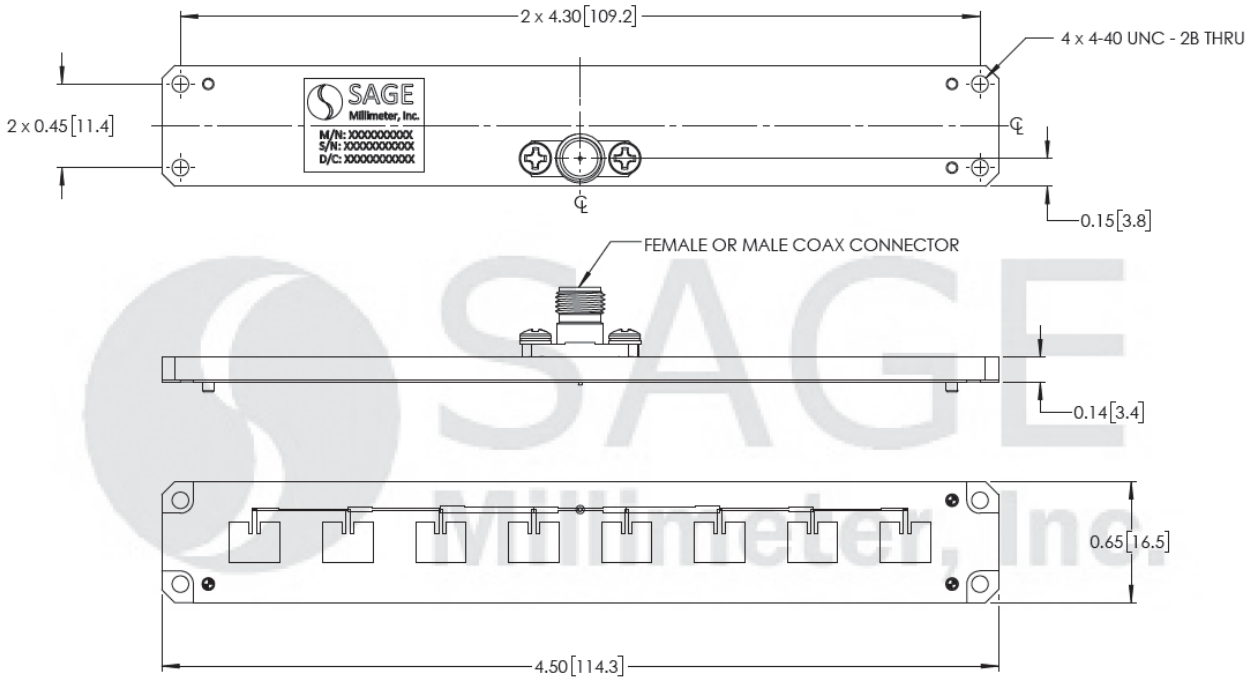
Typical Return Loss vs. Frequency



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



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Note:

- All data are 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:

- Any foreign objects in the antenna will cause performance degradation and possible device damage.

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