



K Band Microstrip Patch Array Antenna, 50° x 12°

Description:

Model SAM-2432431750-42-L1 is a linear polarized, 24 GHz microstrip patch array antenna. The antenna implements a series-fed power distribution to achieve low sidelobe levels. The gain of the antenna is 17 dBi and its beamwidth is 50° vertically and 12° horizontally, with a better than 20 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 standard WR-42 waveguide with a UG-595/U flange. A female 2.92 mm connector version is offered under model number SAM-2432431750-KF-L1.



Features:

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

Applications:

- Radar Systems
- Communication Systems
- Sensor Heads

Electrical Specifications:

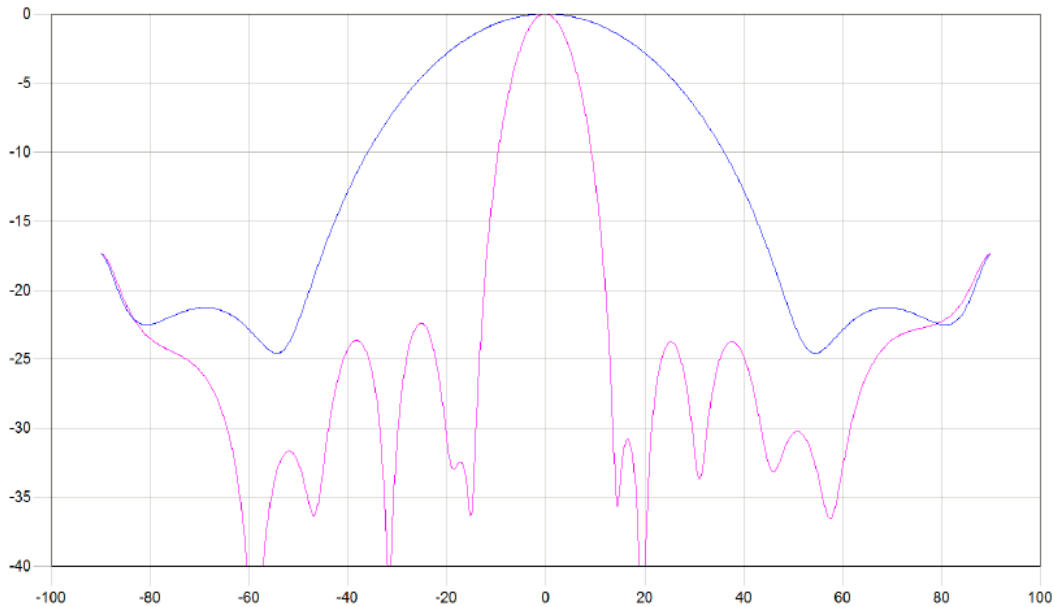
Parameter	Minimum	Typical	Maximum
Frequency Range	24.025 GHz	24.125 GHz	24.225 GHz
Gain		17.0 dBi	
3 dB Beamwidth	50° (Vertical, E Plane) x 12° (Horizontal, H Plane)		
Sidelobe Level		-20 dB	
Polarization	Linear		
Return Loss	6 dB	8 dB	
Specification Temperature	+25 °C		
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

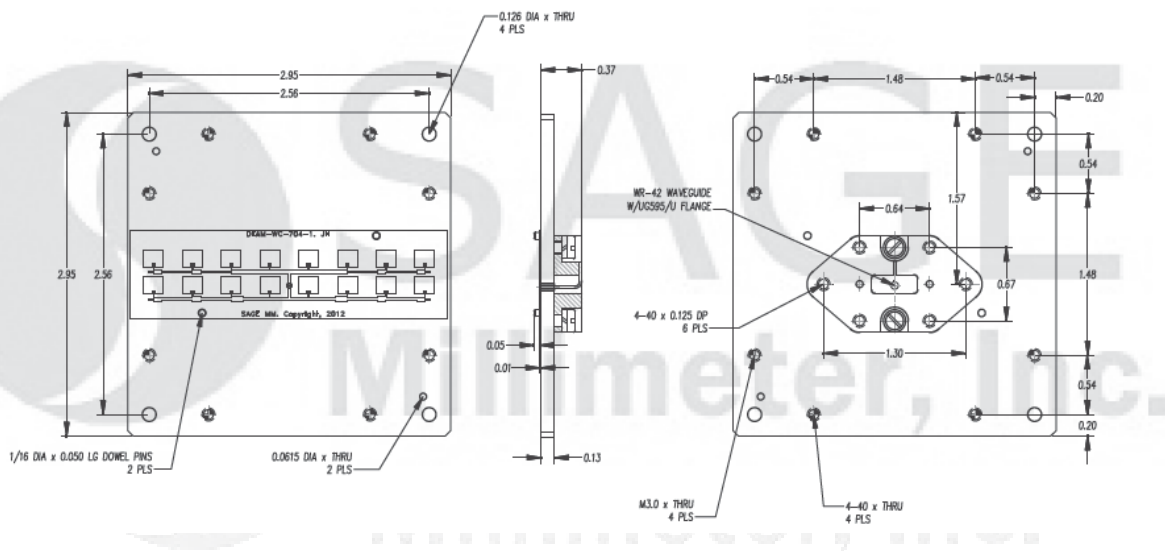
Item	Specifications
Antenna Port	WR-42 Waveguide
Flange Type	UG-595/U Threaded Flange
Number of Elements	8 (H) x 2 (V)
Baseplate Material	Aluminum
Patch Finish	Immersion Tin
Size	2.95" (L) x 2.95" (H) x 0.37" (W)
Weight	2.2 Oz
Outline	AM-RK-1250

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Co-pol E and H Plane Patterns



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 waveguide will affect device performance and may damage the antenna.

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