SAM-8428520865-SF-L1

Rev. 1.0

X Band Microstrip Patch Antenna, 8,450 MHz, 8 dBi Gain, 65° x 65°

Description:

Model SAM-8428520865-SF-L1 is a linear polarized, 8,450 MHz microstrip patch antenna. The antenna has a typical gain of 8 dBi and a beamwidth of 65 degrees vertically and horizontally. 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	8,400 MHz	8,450 MHz	8,500 MHz
Gain		8 dBi	
3 dB Beamwidth	65° (Vertical, E Plane) x 65° (Horizontal, H Plane)		
Polarization	Linear		
Return Loss		10 dB	
Power Handling			50 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

Item	Specifications
Antenna Port	SMA(F)
Number of Elements	1
Baseplate Material	Aluminum
Patch Finish	Immersion Tin
Weight	0.6 Oz
Size	1.10” (L) x 1.10” (H) x 0.64” (W)
Outline	AM-CX-6565-1

www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505
Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

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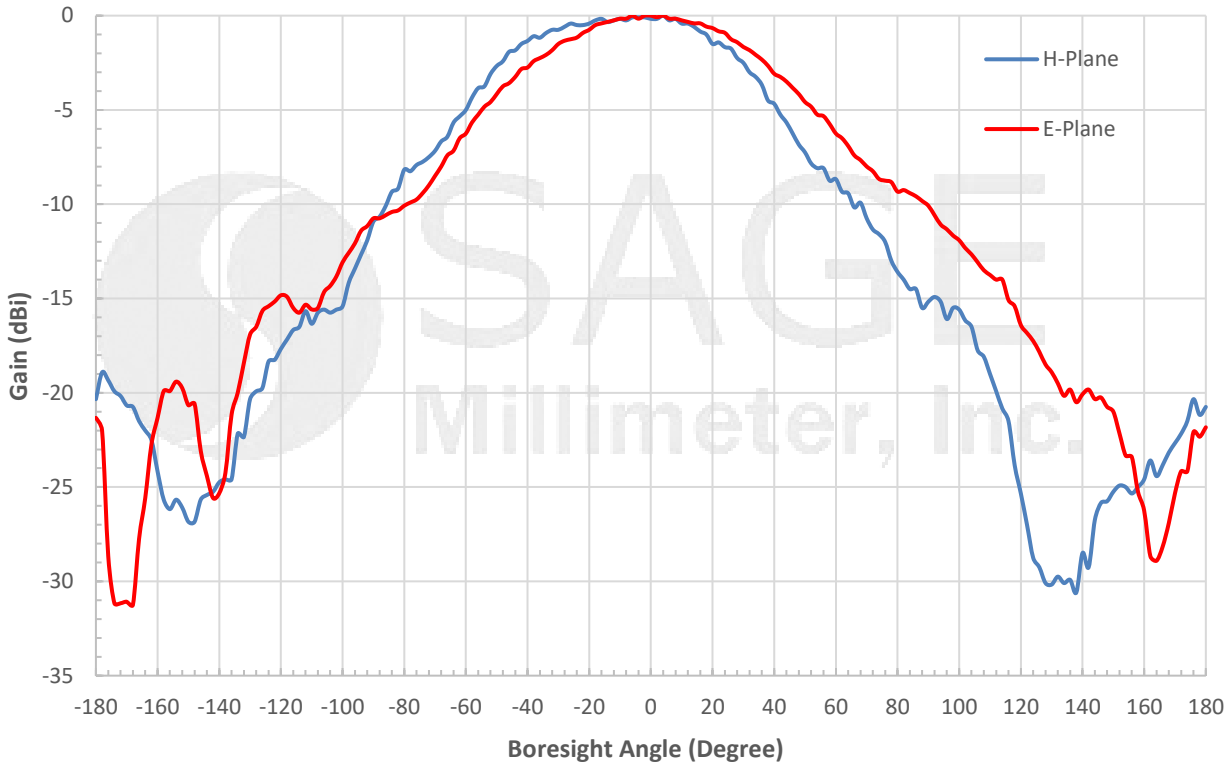
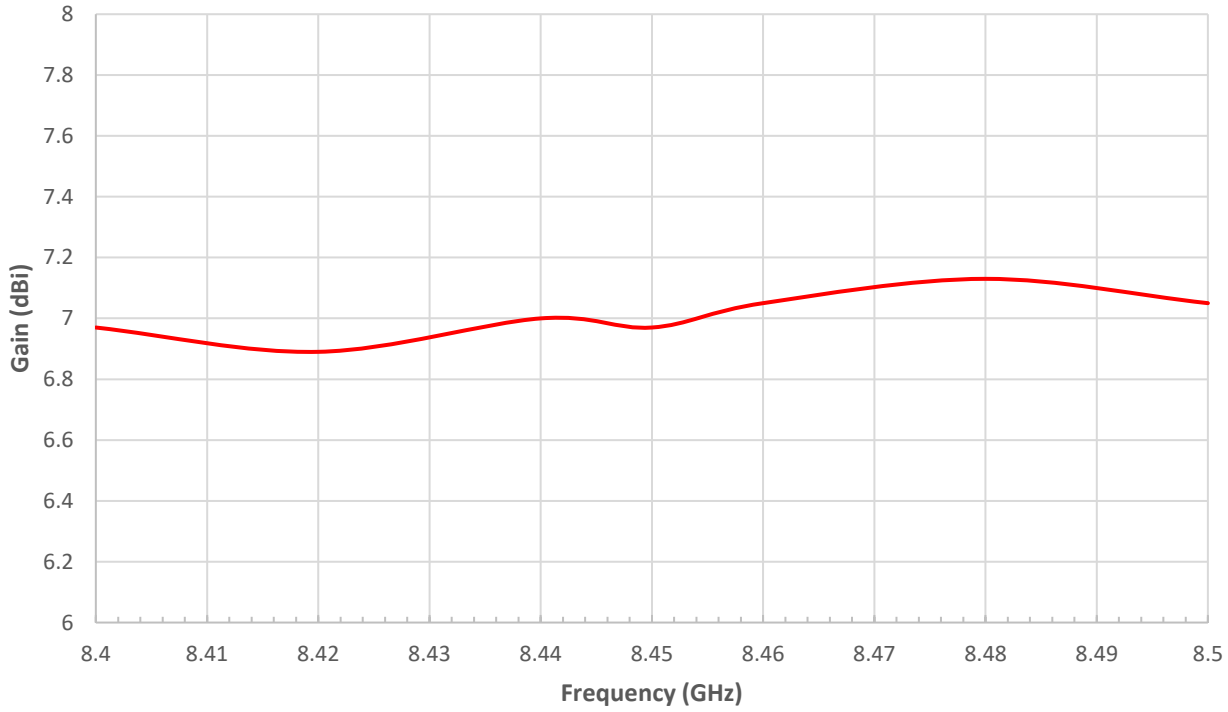
Typical Antenna Pattern@ 8.45 GHz



Typical Gain vs. Frequency



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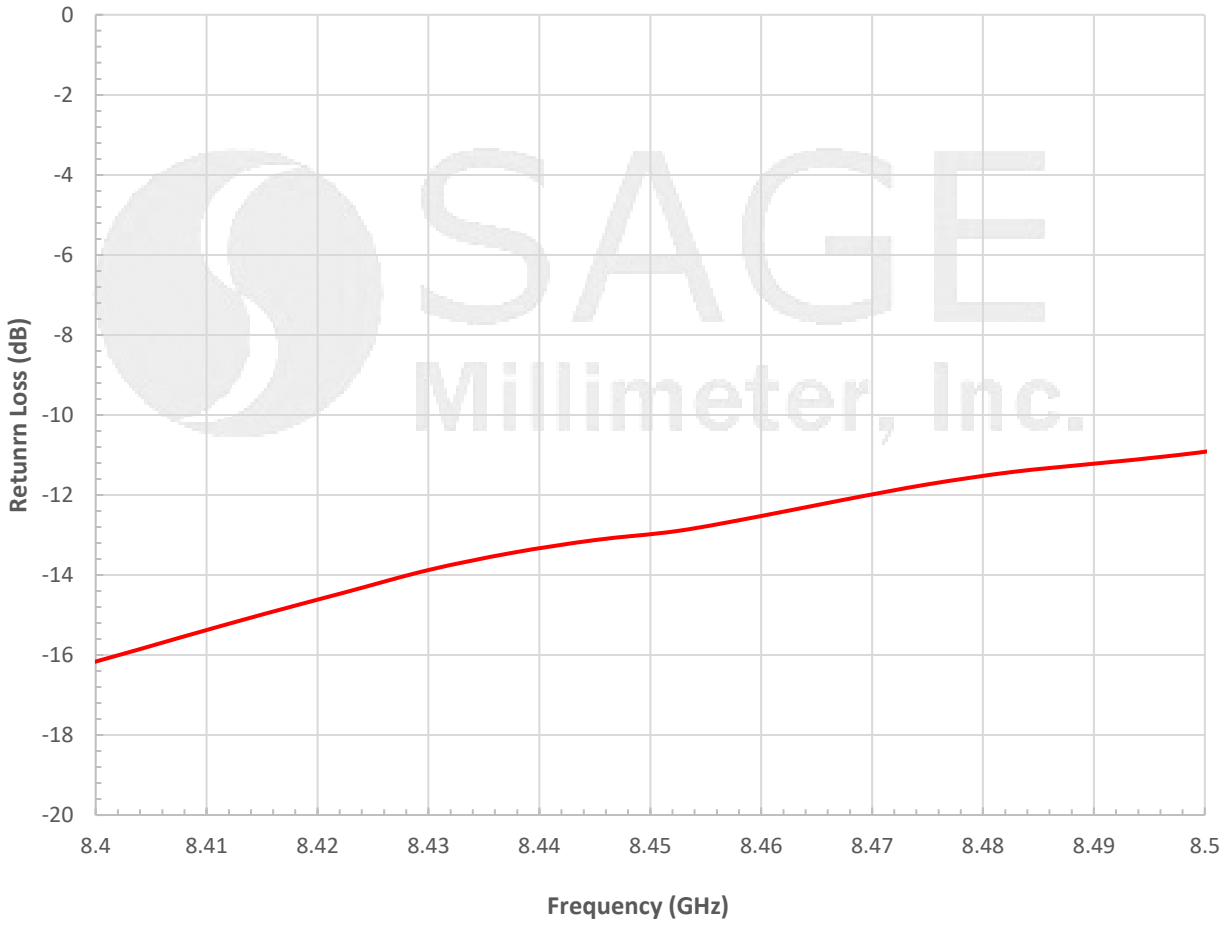
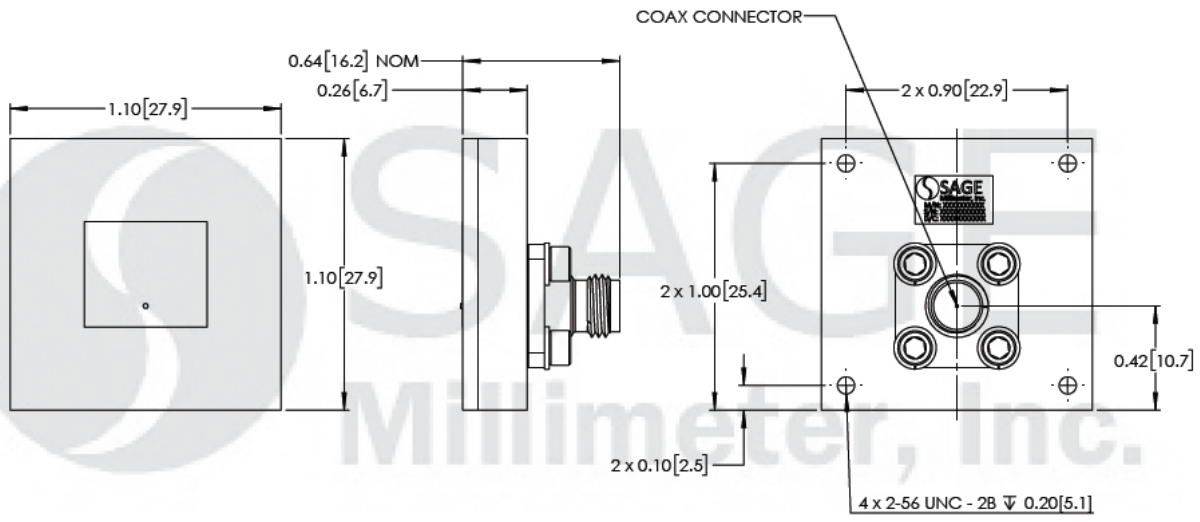
Typical Return Loss vs. Frequency



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



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Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- 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.
- 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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