



## Ku-Band Sector Rectangular Lens Antenna, 10.7 to 15 GHz

### Description:

**Model SAK-AL113153-62-C1** is a custom built, Ku-band sector rectangular lens antenna that delivers a nominal half-power beam width of 50 degrees vertically and 10.5 degrees horizontally and 20 dBi nominal gain at a center frequency of 12.85 GHz. The sidelobe level of the antenna is 15 dB or better across the frequency range of 10.7 to 15.0 GHz and the VSWR is 1.7:1 or lower. The standard model is equipped with a WR-62 rectangular waveguide and a UG-419/U flange as its input port.



### Features:

- Low Sidelobes
- High Aperture Efficiency
- High Cross-Pol Isolation
- Light Weight

### Applications:

- Airborne Radar Systems
- Communication Systems
- Sensor Systems

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	10.70 GHz	12.85 GHz	15.00 GHz
Gain	16.0 dB	20.0 dB	21.0 dB
3 dB Beamwidth, Vertical		50°	
3 dB Beamwidth, Horizontal		10.5°	
Sidelobe Level, Vertical		-17 dB	
Sidelobe Level, Horizontal		-18 dB	
Polarization		Linear	
Cross Polarization		-30 dB	
Return Loss		-12.0 dB	
Specification Temperature		+25 C°	
Operating Temperature	-40 C°		+85 C°

### Mechanical Specifications:

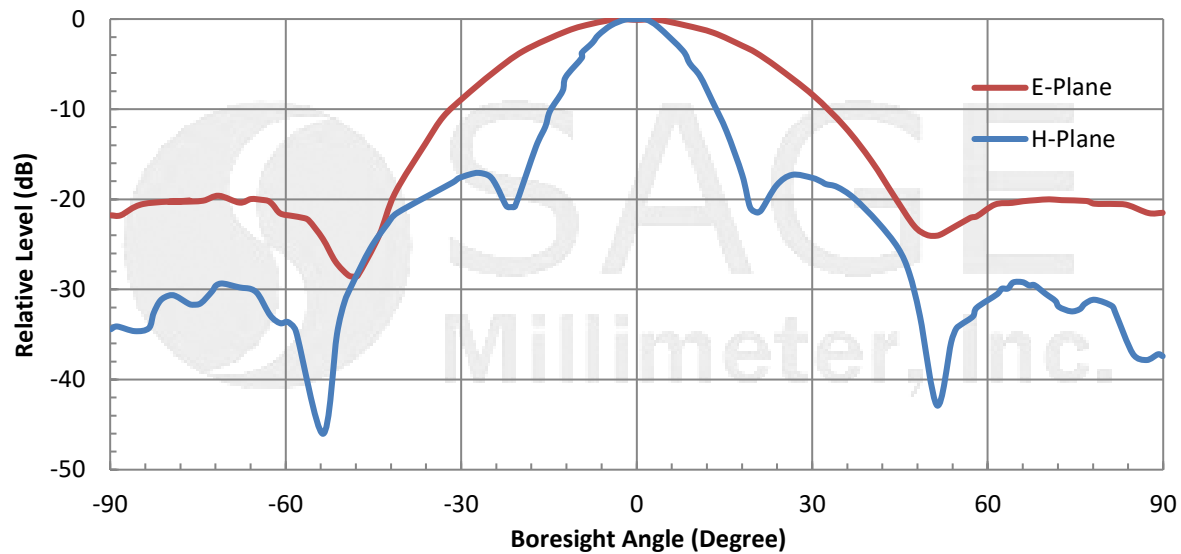
Item	Specification
Antenna Port	WR-62 Rectangular Waveguide with UG-419/U Flange
Case Material	Aluminum
Inner Finish	Silver Plated
Outer Finish	Black Paint
Weight	13 Oz
Dimensions	6.50" (W) x 1.31" (H) x 5.25" (L)
Outline	AK-R620-C1



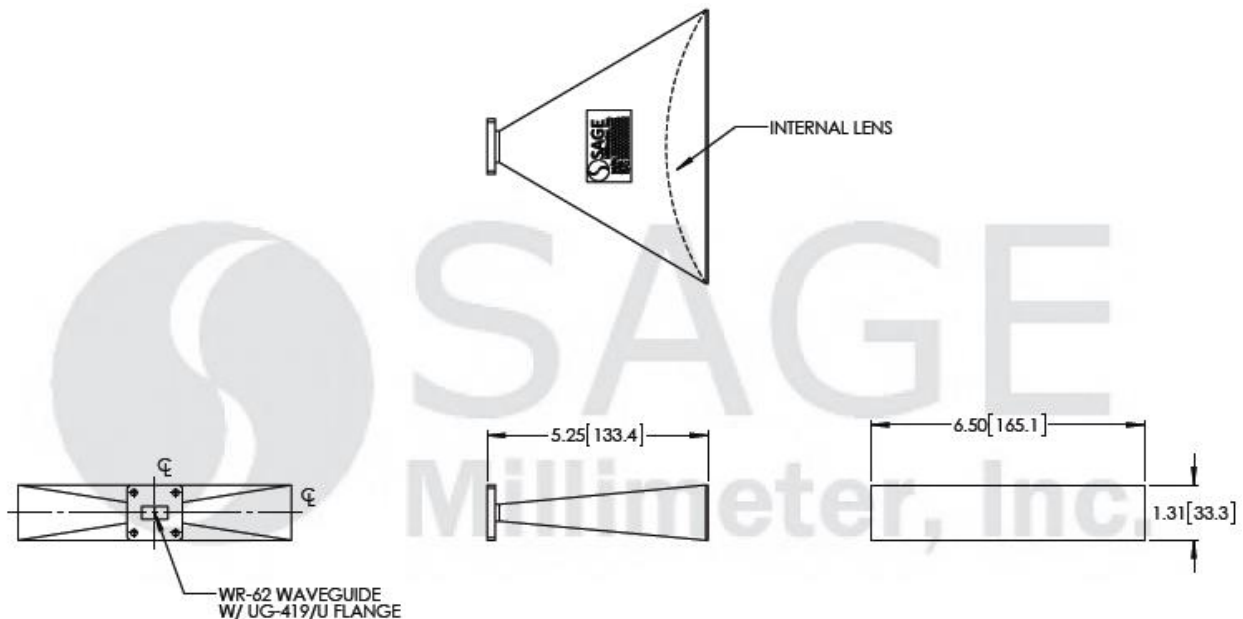
www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505  
 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

## Ku-Band Sector Rectangular Lens Antenna, 10.7 to 15 GHz

### Typical Antenna Patterns @ 12.85 GHz



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



#### Note:

- All data presented is collected by using a 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 the antenna performance and may damage the antenna.

