



## W Band Conical Horn Antenna, 15 dBi Gain

### Description:

**Model SAC-1533-094-S2** is a W-band conical horn antenna that operates from 87 to 100 GHz. The antenna offers 15 dB nominal gain and a typical half power beamwidth of 30 degrees on the E-plane and 36 degrees on the H-plane. The horn also offers typical sidelobes of -16 dB on the E-plane and -28 dB on the H-plane. The conical horn can support linear and circular polarization. The input of this antenna is a 0.094" diameter circular waveguide with UG-387/U-M flange.



### Features:

- Circular Waveguide Interface
- Precisely Machined and Gold Plated
- High Return Loss
- Linear and Circular Polarization

### Applications:

- Antenna Ranges
- Feed Horns
- System Setups

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency*	87 GHz		100 GHz
Gain		15 dB	
3 dB Beamwidth, E-plane		30°	
3 dB Beamwidth, H-plane		36°	
Sidelobes, E-plane		-16 dB	
Sidelobes, H-plane		-28 dB	
Return Loss		23 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

\*Note: Can operate from 80 to 110 GHz if the dominant mode is maintained.

### Mechanical Specifications:

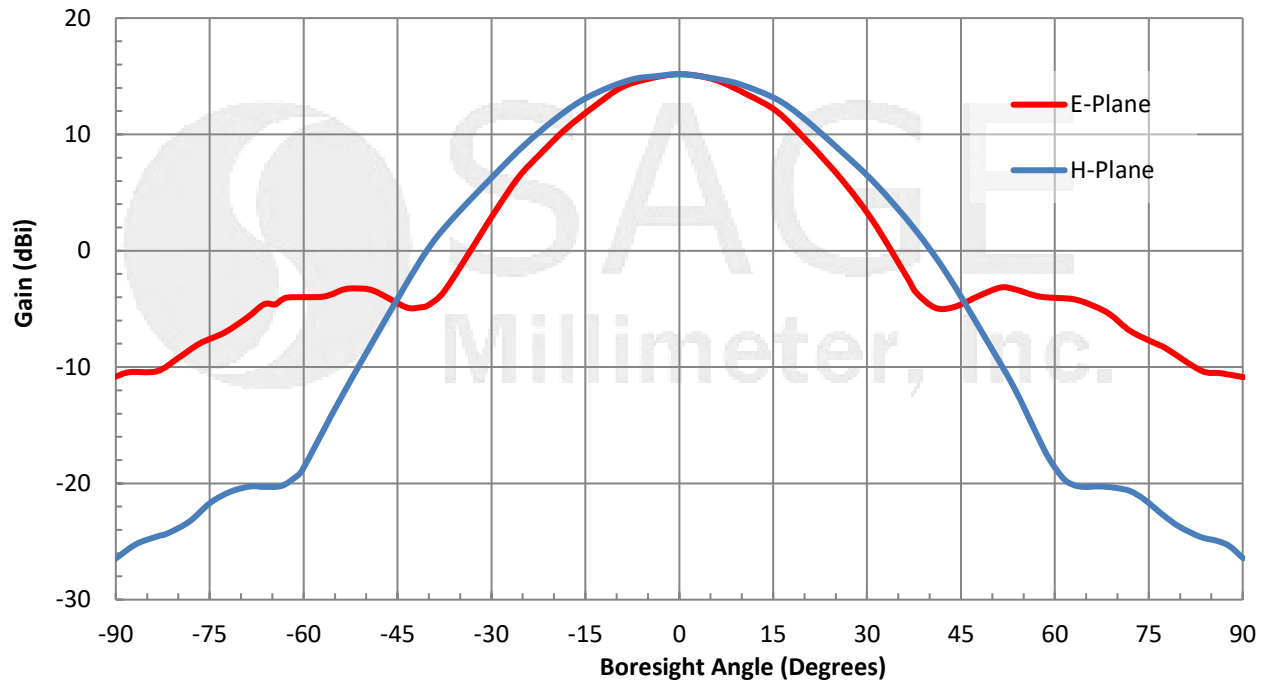
Item	Specification
Antenna Port	0.094" Diameter Circular Waveguide
Flange Type	UG-387/U-M Flange
Material	Brass
Finish	Gold Plated
Weight	0.5 Oz
Size	0.55" (L) X 0.35" (Ø)
Outline	AC-CW15-094



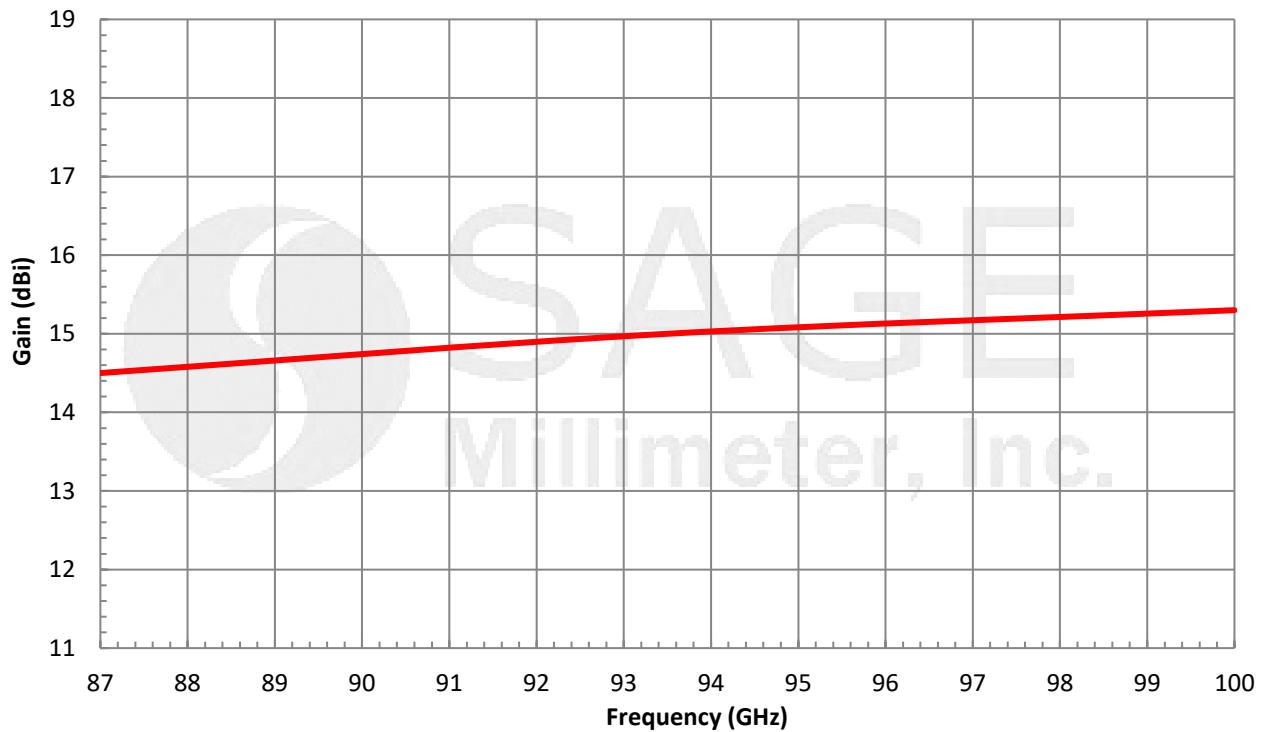


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### Typical Antenna Pattern @ 93.5 GHz

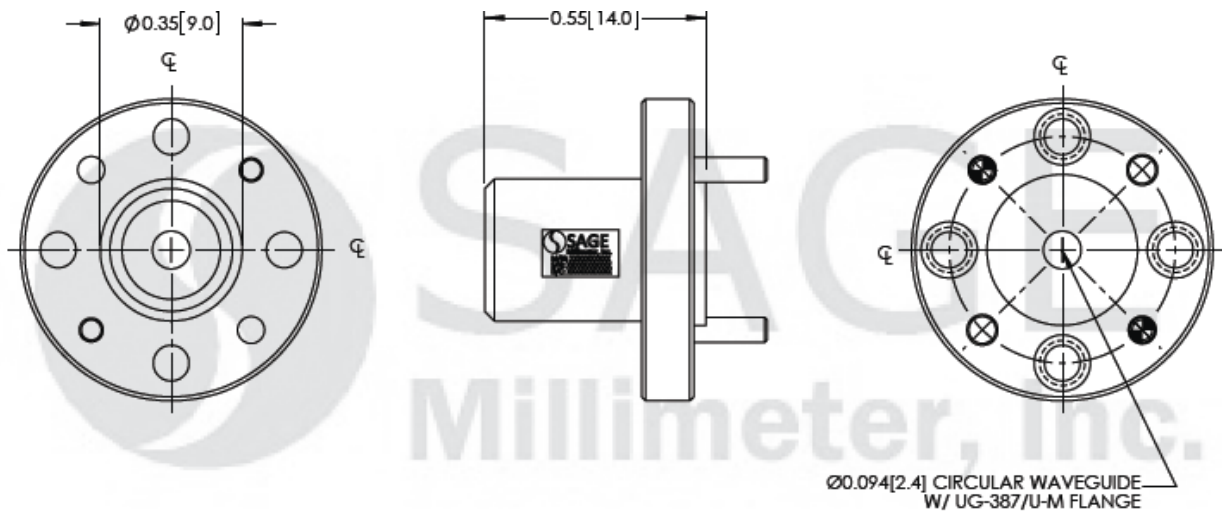


### Typical Gain vs. Frequency



## W Band Conical Horn Antenna, 15 dBi Gain

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



**Note:**

- All data presented is simulated. Actual data may vary.
- 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.

