### **WR-12 Probe Antenna**

### **Description:**

Model SAP-12-R2-WP is an E-band probe antenna that operates from 60 GHz to 90 GHz. The antenna offers 6.5 dBi nominal gain and 115 degrees typical half power beamwidth on the E-plane and 60 degrees typical half power beamwidth on the H-plane. The antenna supports linear polarized waveforms. The input of this antenna is a WR-12 waveguide with UG387/U flange.



### **Features:**

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

# **Applications:**

- Antenna Ranges
- Antenna Gain Measurements
- **System Setups**

# **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency	60 GHz		90 GHz
Gain		6.5 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		115°	
3 dB Beamwidth, H-Plane		60°	
Side Lobes, E-Plane		-10 dB	
Side Lobes, H-Plane		-14 dB	
Return Loss	' /\	9 dB	
Specification Temperature		+25°C	- 29
Operating Temperature	-40°C		+85°C

# **Mechanical Specifications:**

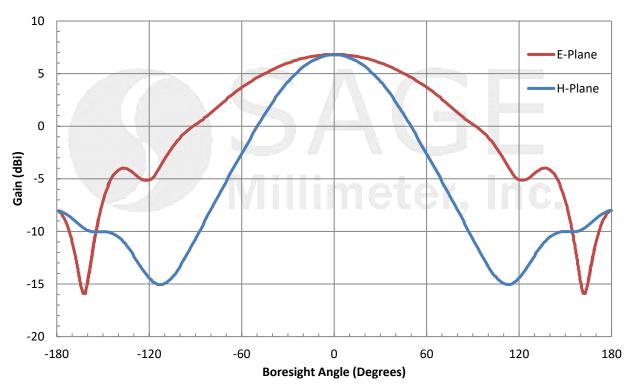
Mechanical Specifications:			
Item	Specification		
Antenna Port	WR-12 Waveguide		
Flange Type	UG-387/U Flange		
Size	1.20" (L) x 0.75 (Ø)		
Material	Brass		
Finish	Gold Plated		
Weight	0.38 Oz		
Outline	AP-RE		



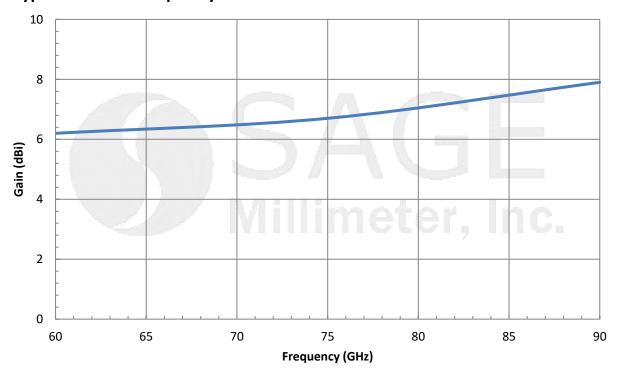
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# **WR-12 Probe Antenna**

# Typical Antenna Pattern @ 75 GHz



# **Typical Gain vs. Frequency**

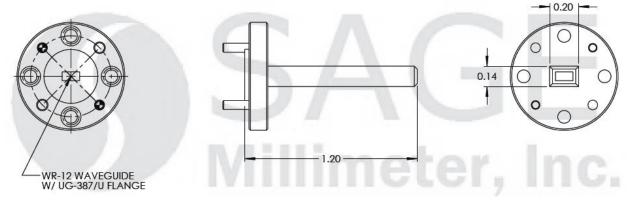




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**Mechanical Outline:** (Unless otherwise specified, all dimensions are in inches [millimeters])



### Note:

- This antenna is a mature product. The reasons for only providing simulated data can be found in the following blog <a href="here">here</a>.
- Eravant reserves the right to change the information presented without notice.

### **Caution:**

• Any foreign objects in the waveguide will cause performance degradation and possible device damage.





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