

## STY-MAA-AP-19VF-R1

### WR-19 Open Ended Waveguide Probe Assembly, 6.5 dBi Directivity

**STY-MAA-AP-19VF-R1** is a U-band open ended waveguide probe assembly that operates from 40 GHz to 60 GHz. The antenna offers 6.5 dBi nominal directivity, a typical half power beamwidth of 115 degrees on the E-plane and 60 degrees on the H-plane. The antenna supports linear polarized waveforms. The RF port is a right angle (90°) 1.85 mm coax connector. The antenna is mounted on a universal mounting cage, which is constructed from sturdy black anodized aluminum plates and optical grade stainless steel posts. The cage includes an integrated bubble level and a removable Velcro fastened absorber shield. The open ended waveguide probe assembly is offered for near-field antenna range gain and pattern measurement purposes, but it can be also used for general purpose system set ups.



### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	40 GHz		60 GHz
Directivity		6.5 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		115°	
3 dB Beamwidth, H-Plane		60°	
Sidelobes, E-Plane		-10 dB	
Sidelobes, H-Plane		-14 dB	
Return Loss		8 dB	
Power Handling			40 W (CW)
Specification Temperature		+25 °C	
Operation Temperature	-40 °C		+85 °C

### Mechanical Specifications:

Item	Specification
RF Port	1.85 mm Female Coax Connector
Material	Brass, Aluminum, Stainless Steel
Finish	Gold Plated (Brass), Black Anodized (Aluminum), Passivated (Stainless Steel),
Weight	10.5 lbs.
Outline	TY-MAA-AP-UC-R

### ECCN

EAR99

### FEATURES

- Robust Universal Mounting Cage
- Bubble Level and Absorber Shield
- Right Angle Connector Configuration
- Linear Polarization
- DC Open Circuit

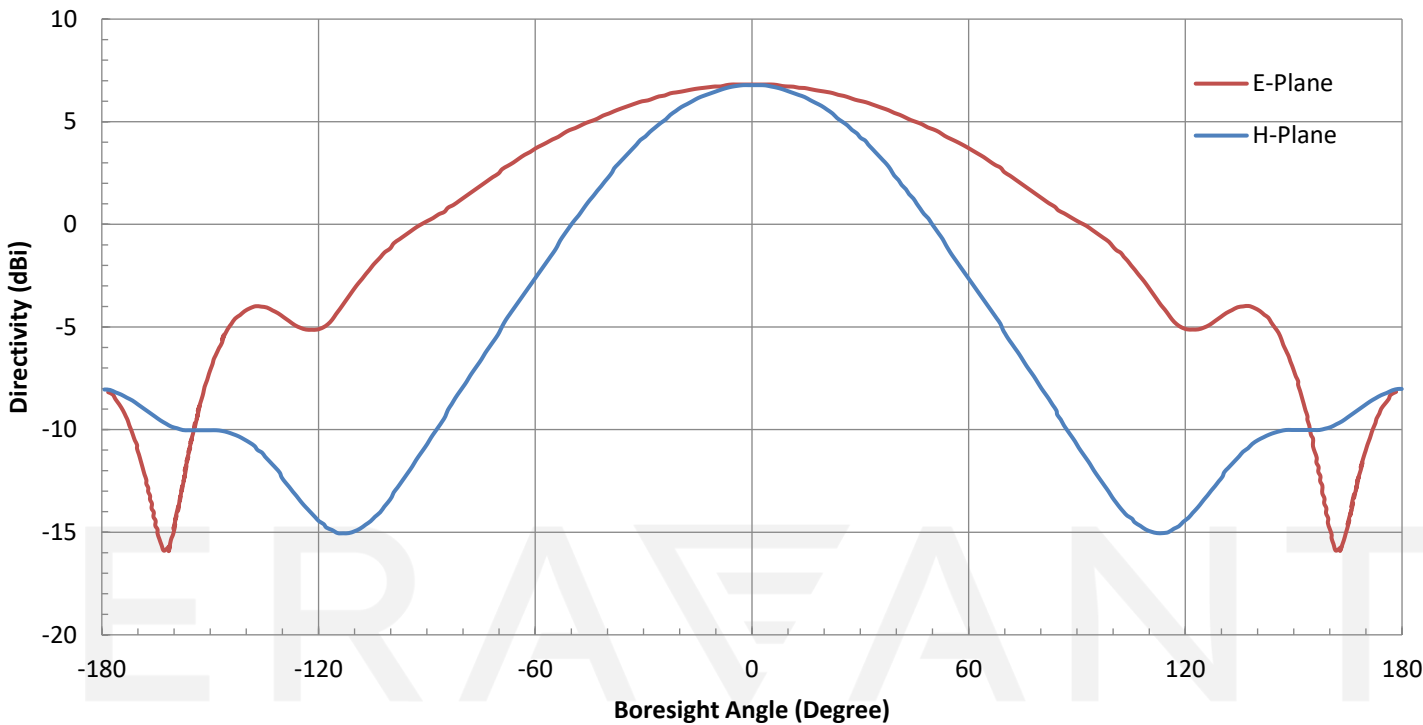
### APPLICATIONS

- Near Field Range Testing
- General System Setups

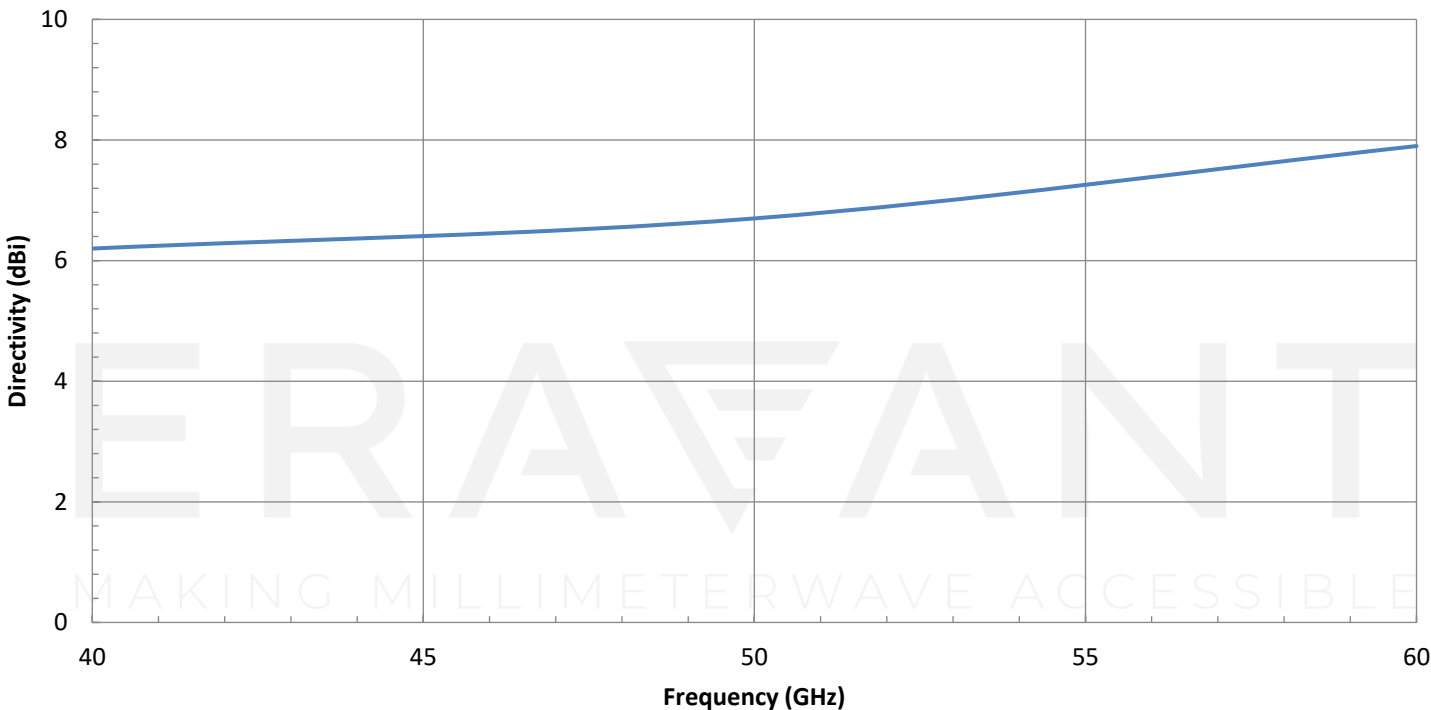
### SUPPLEMENTAL DETAILS



Simulated Antenna Pattern @ 50 GHz



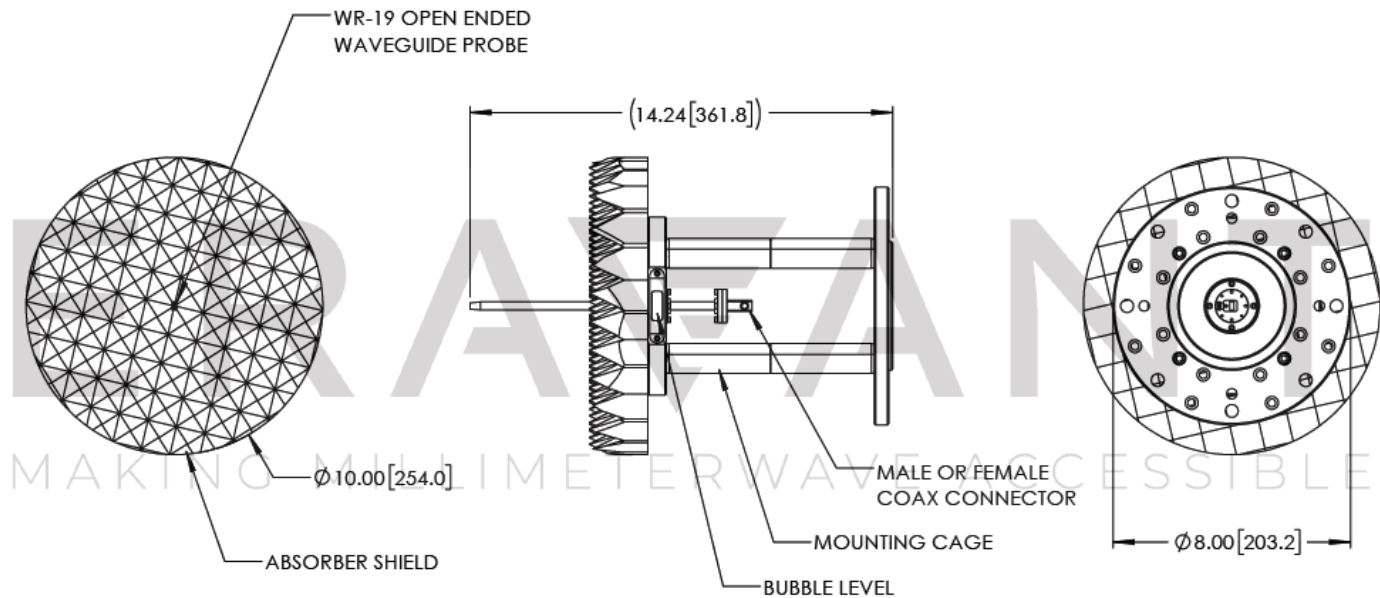
Simulated Directivity vs. Frequency



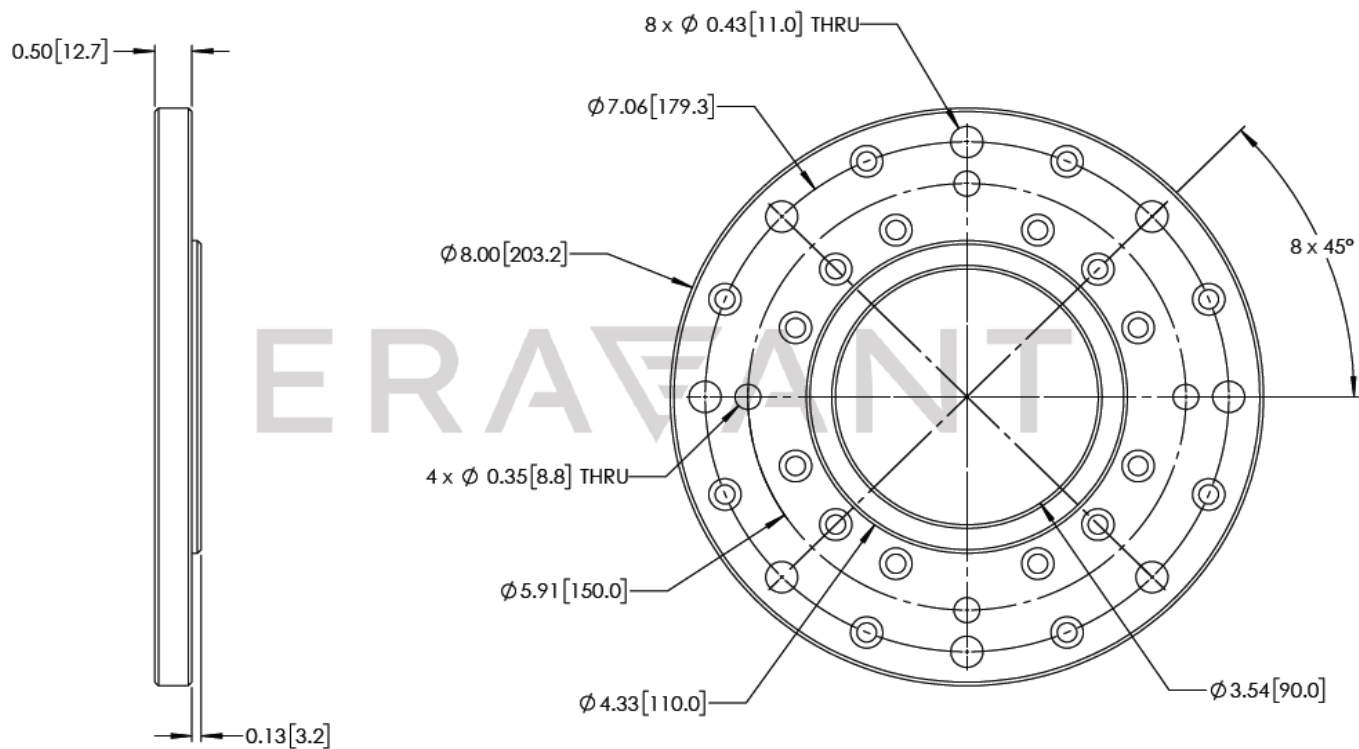
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Mechanical Outline:

Unless otherwise specified, all dimensions are in inches [millimeters]



MOUNTING INTERFACE



**NOTE:**

- All data presented is simulated. Actual data may vary slightly.
- Eravant 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.
- For 1 mm connectors proper torque should be applied:  $4.0 \pm 0.15$  inch-pounds ( $0.45 \pm 0.02$  Nm). Torque wrench model SCH-06004-S1 is highly recommended.

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