STY-MAA-AP-42KF-R1

WR-42 Open Ended Waveguide Probe Assembly, 6.5 dBi Directivity

STY-MAA-AP-42KF-R1 is a K-band open ended waveguide probe assembly that operates from 18 GHz to 26.5 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°) 2.92 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	18 GHz		26.5 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			50 W (CW)
Specification Temperature		+25 °C	
Operation Temperature	-40 °C		+85 °C

Mechanical Specifications:

Item	Specification
RF Port	2.92 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-KC-R

ECCN

EAR99

FEATURES

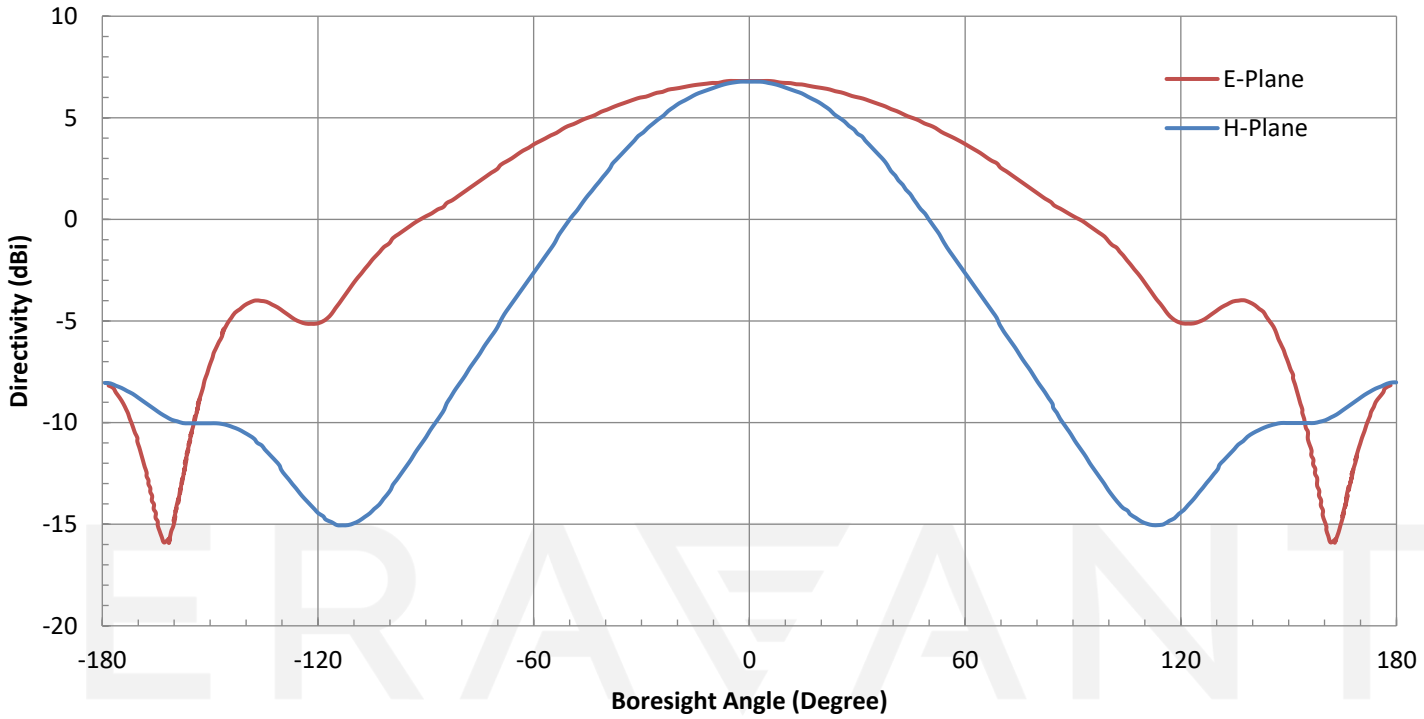
- Robust Universal Mounting Cage
- Bubble Level and Absorber Shield
- Right Angle Connector Configuration
- Linear Polarization
- DC Open Circuit

APPLICATIONS

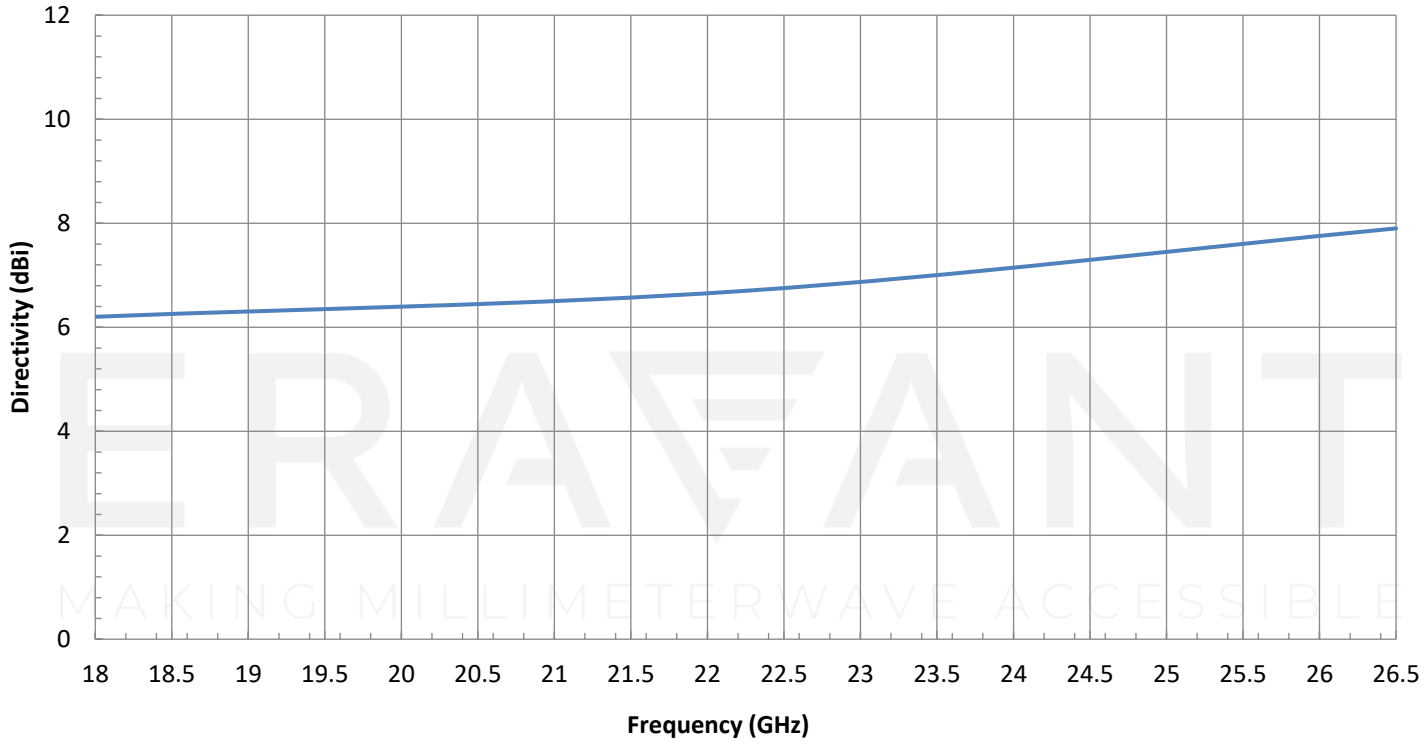
- Near Field Range Testing
- General System Setups

SUPPLEMENTAL DETAILS

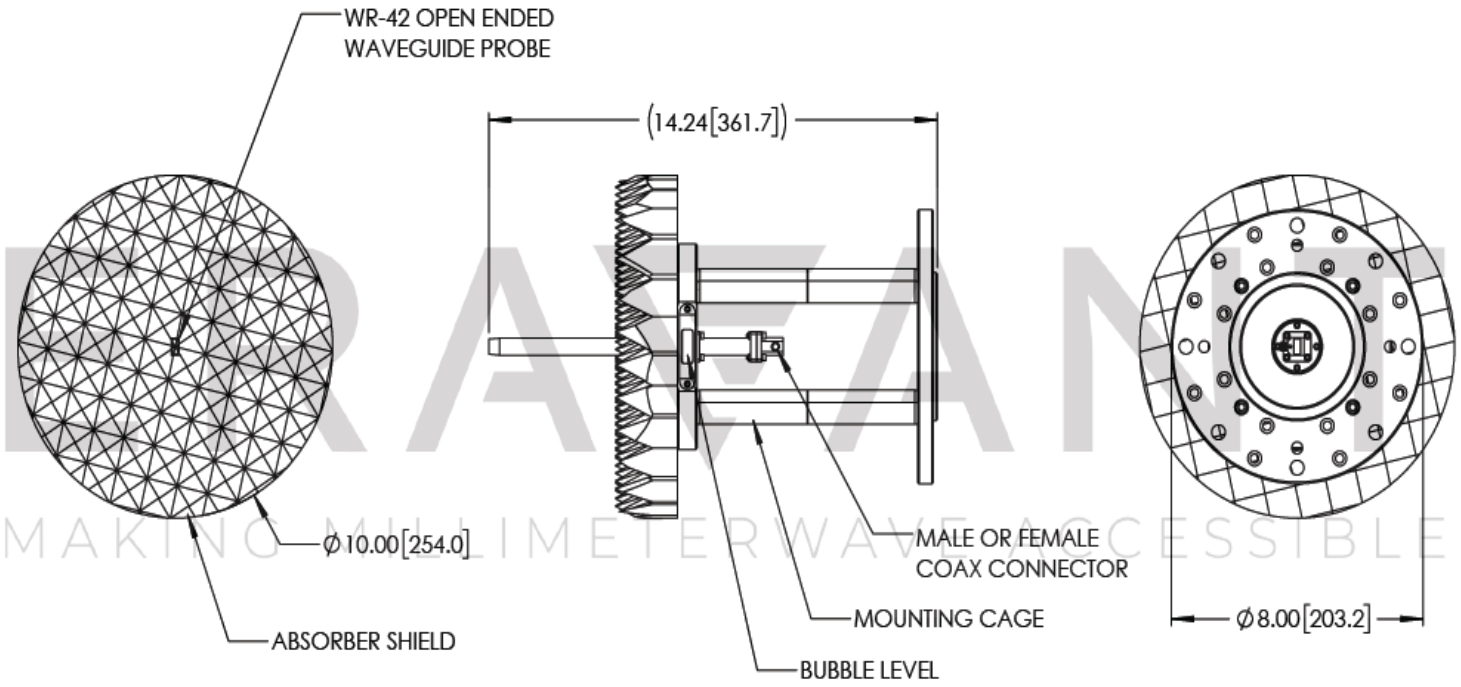
Simulated Antenna Pattern @ 22.5 GHz



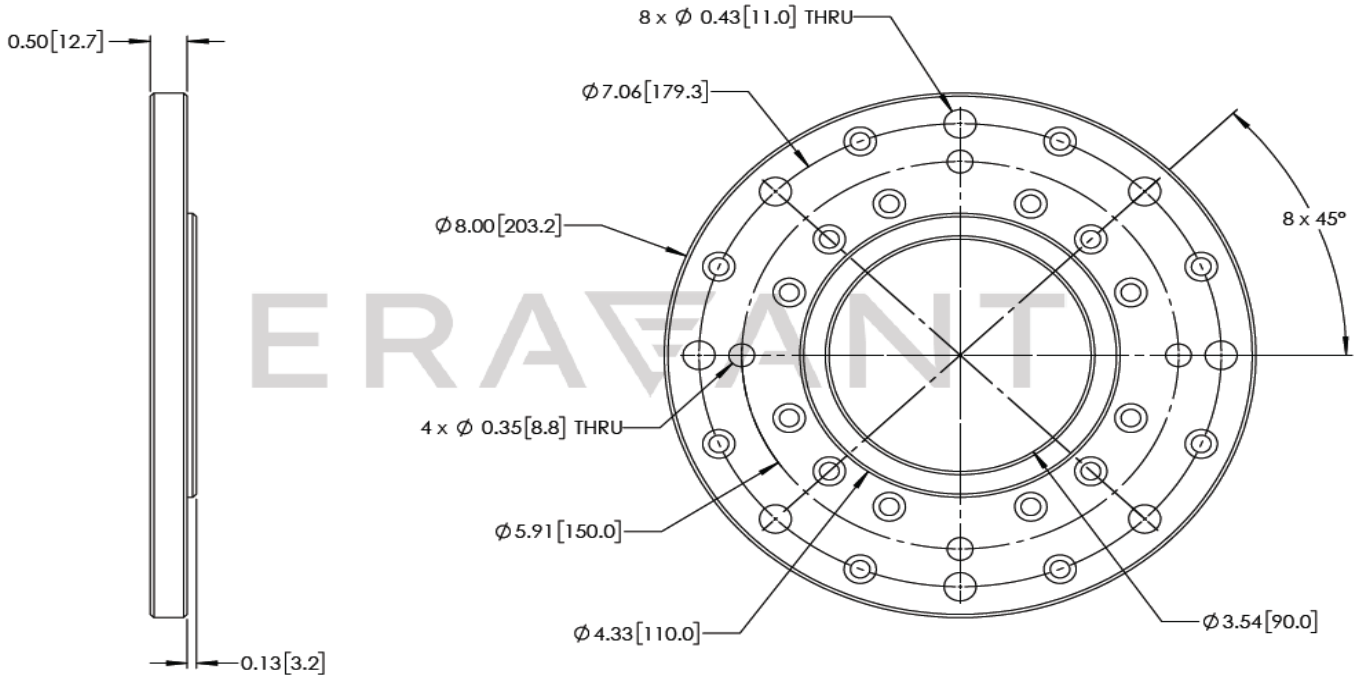
Simulated Directivity vs. Frequency



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 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.

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