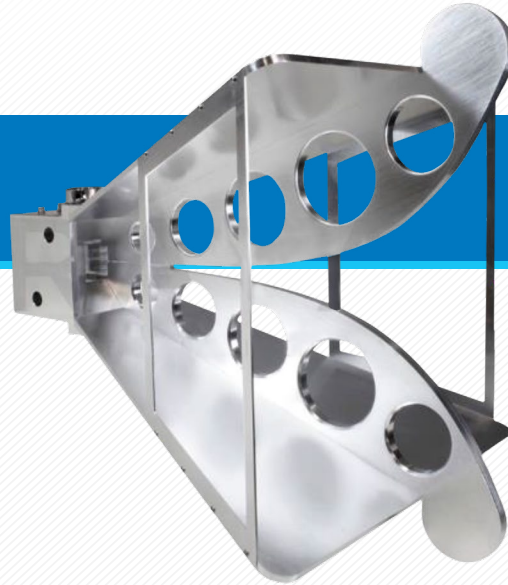


MODEL NUMBER:

**DRHA18G-OB**

**Dual Ridged Horn Antenna,  
1 to 18 GHz**



**DRHA18G-OB** is a dual-ridged broadband horn antenna that operates from 1 to 18 GHz. The antenna offers a typical gain of 12 dBi and a typical 3 dB beamwidth of 45° on the E-plane and 35° and H-plane, respectively. The antenna supports linear polarized waveforms. The antenna features a 5/16-18 threaded hole and a mounting fixture with ¼-20 threaded holes for flexible mounting capacity. The RF port is equipped with a female SMA connector.

### STANDARD SPECIFICATIONS

PARAMETER	MINIMUM	TYPICAL	MAXIMUM
Frequency Range	1 GHz		18 GHz
Gain		12 dBi	
Polarization		Linear	
3 dB Beamwidth, E-Plane		45°	
3 dB Beamwidth, H-Plane		35°	
Return Loss		10 dB	
Input Impedance		50 Ω	
Power Handling			50 W (CW)
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

### MECHANICAL SPECIFICATIONS:

ITEM	SPECIFICATION
Antenna Port	SMA (F)
Material	Aluminum
Finish	Chem Film
Weight	4.4 lbs
Outline	AV-C12-DR

**ECCN**  
EAR99

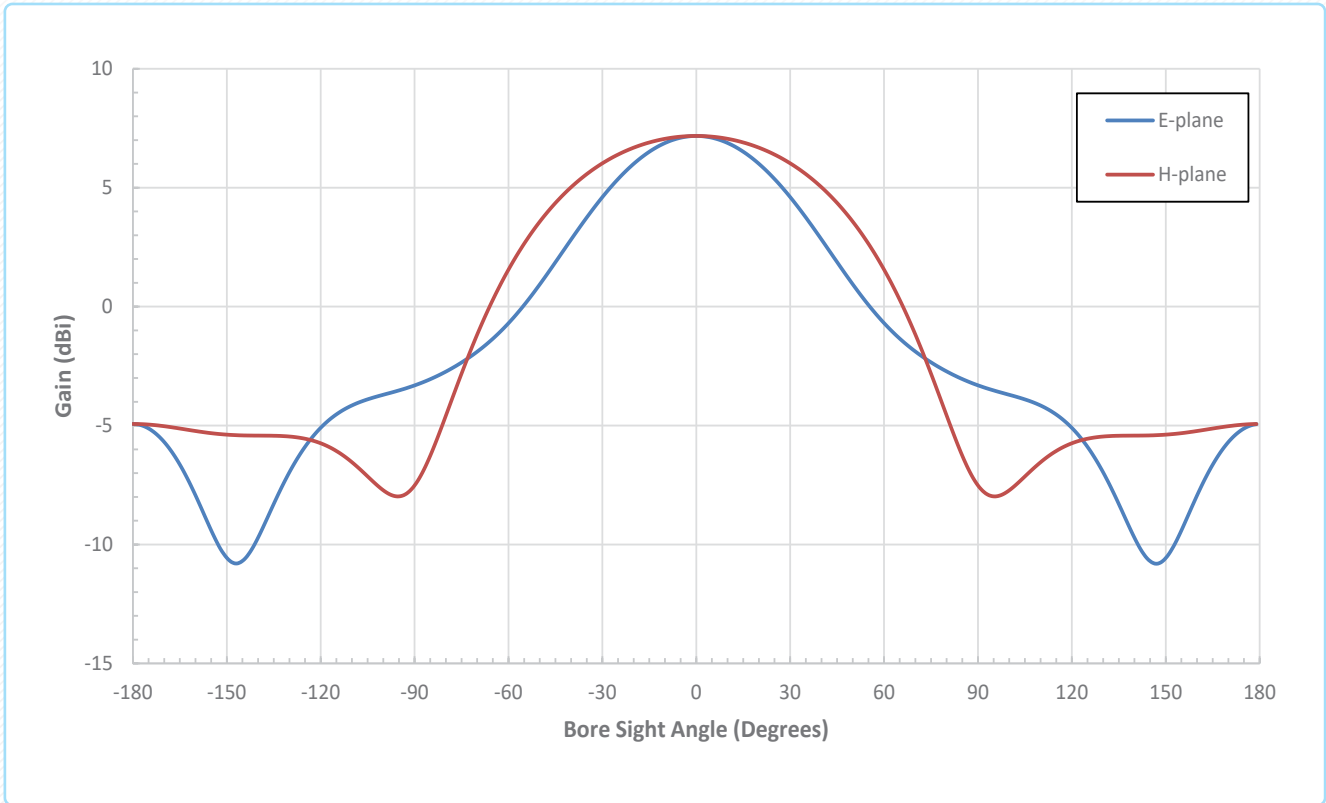
#### FEATURES

- Coaxial Connector for RF Input
- Broadband Width
- Linear Polarization
- Good Impedance Match
- Bubble Level

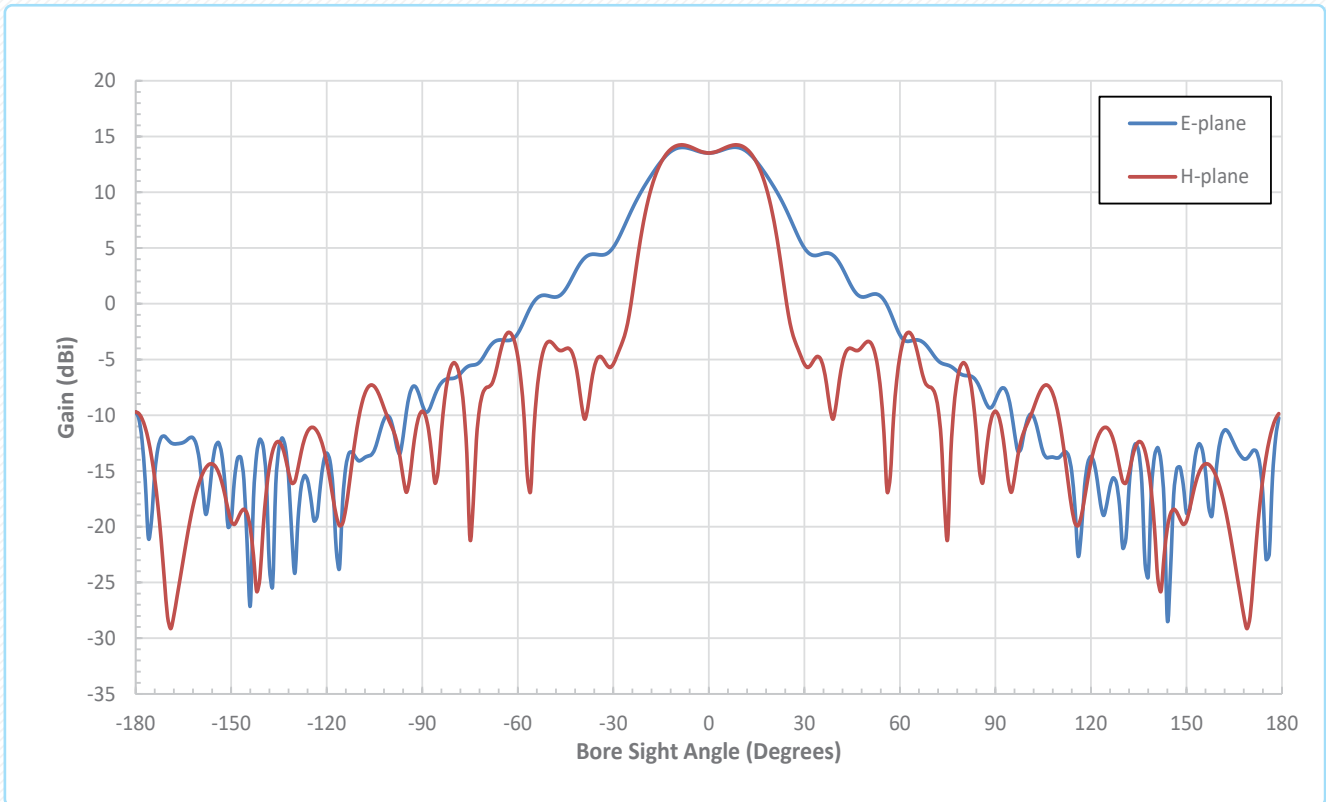
#### APPLICATIONS

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

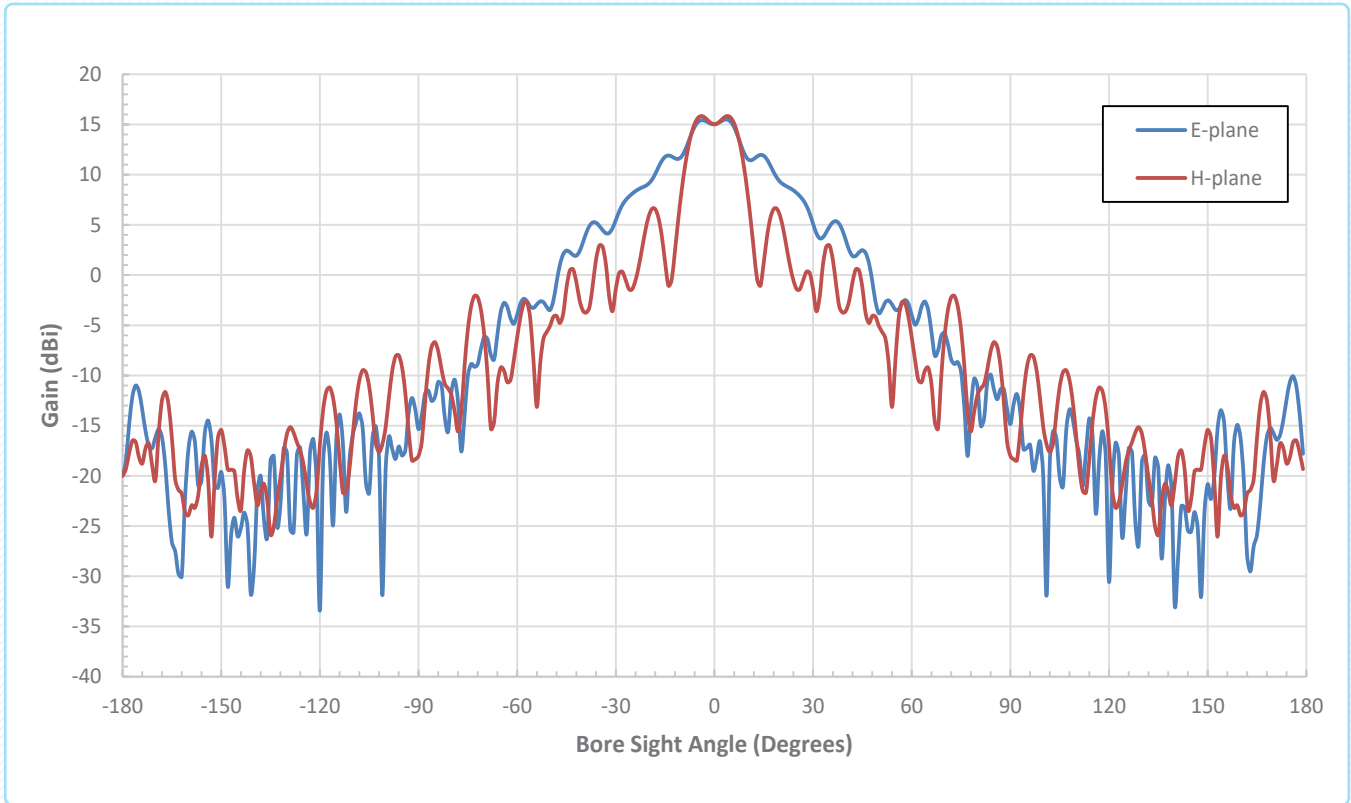
## SIMULATED ANTENNA PATTERN AT 1 GHZ



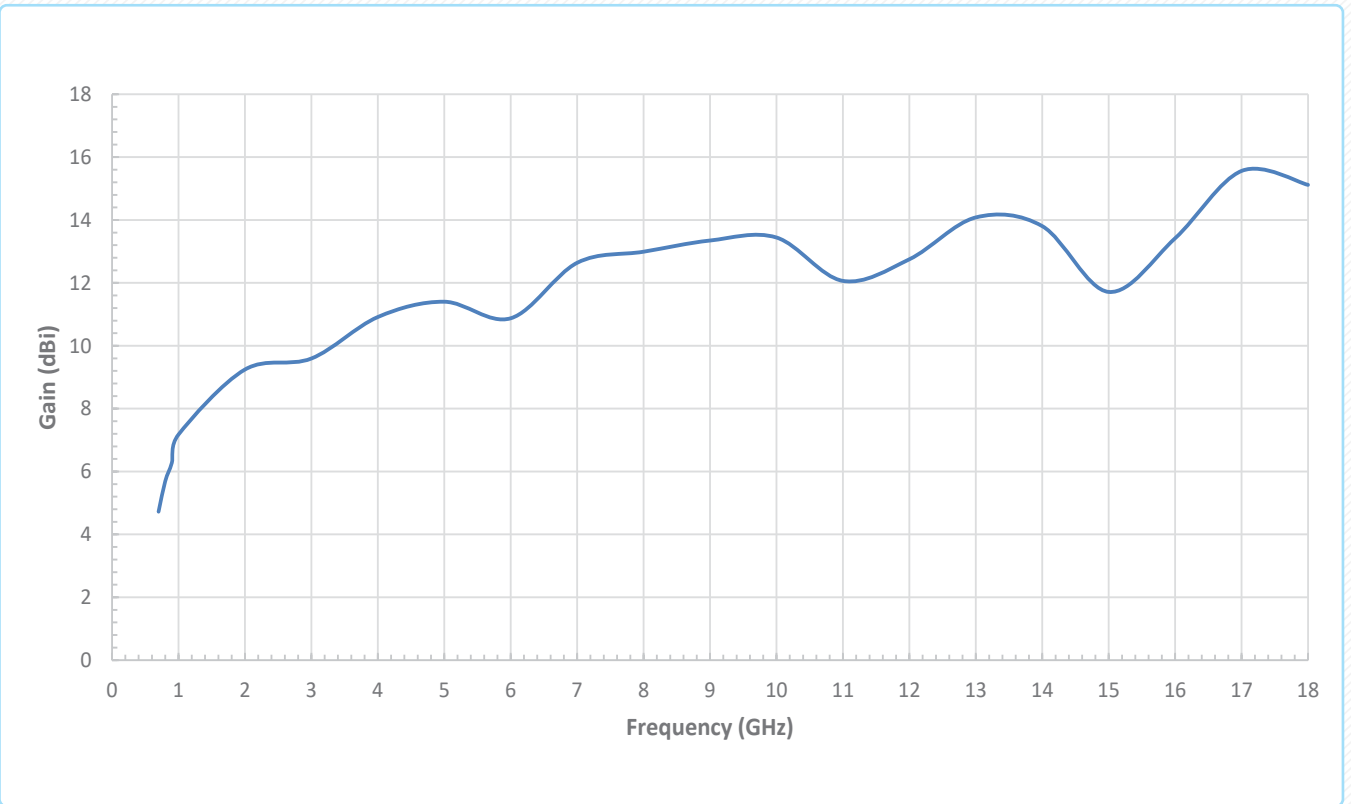
## SIMULATED ANTENNA PATTERN AT 10 GHZ



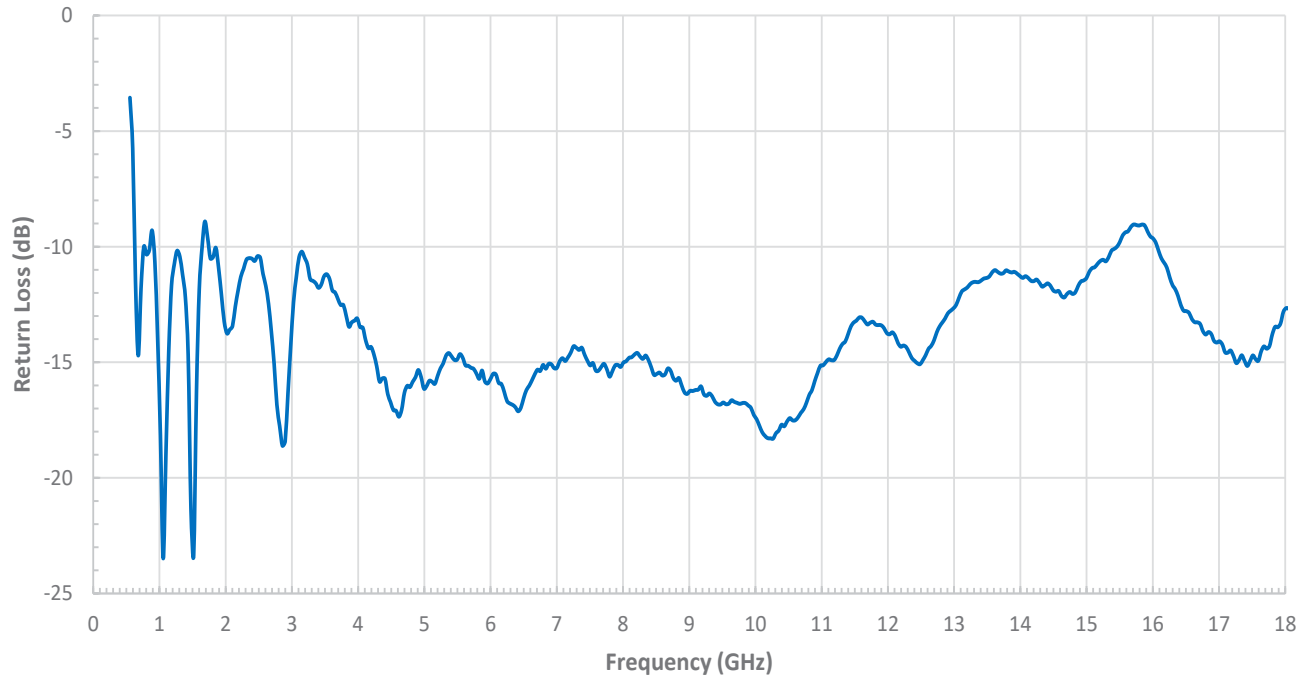
## SIMULATED ANTENNA PATTERN AT 18 GHZ



## SIMULATED GAIN VS FREQUENCY

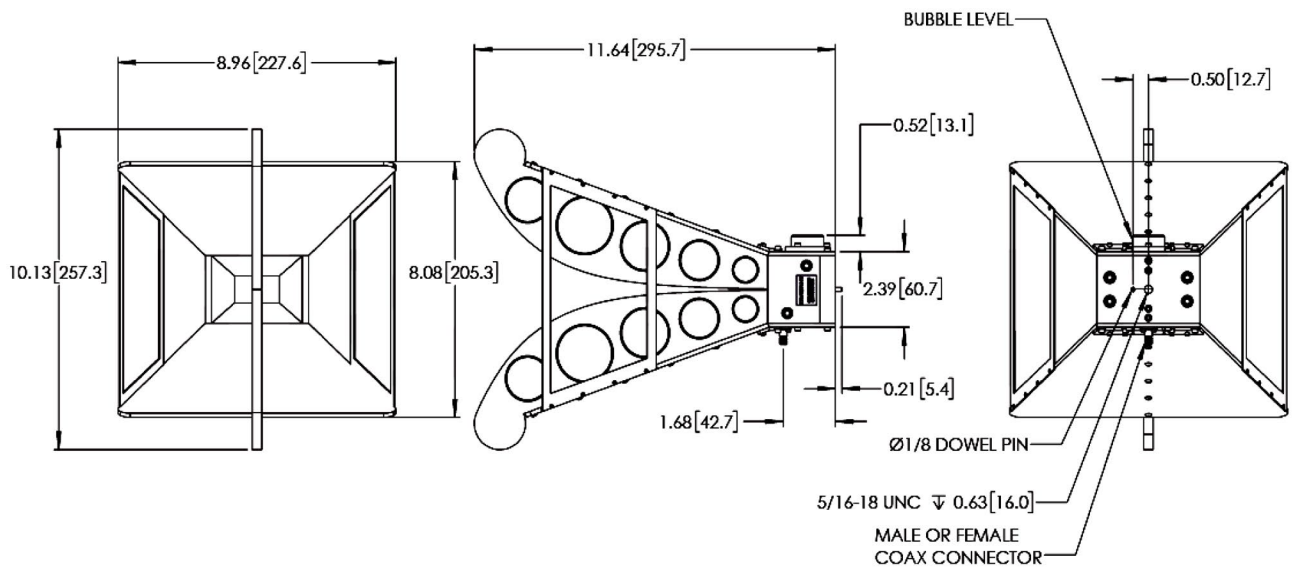


## TYPICAL MEASURED RETURN LOSS VS FREQUENCY

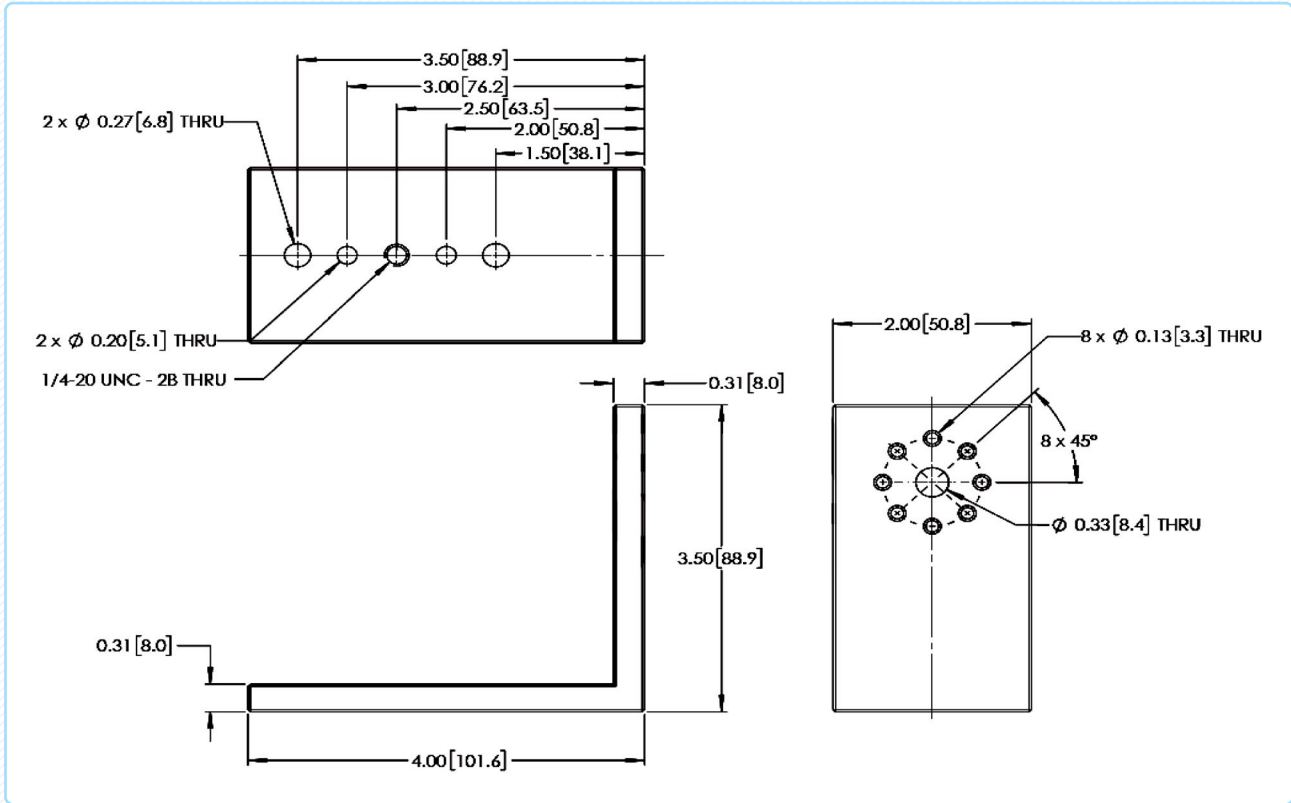


## MECHANICAL OUTLINE:

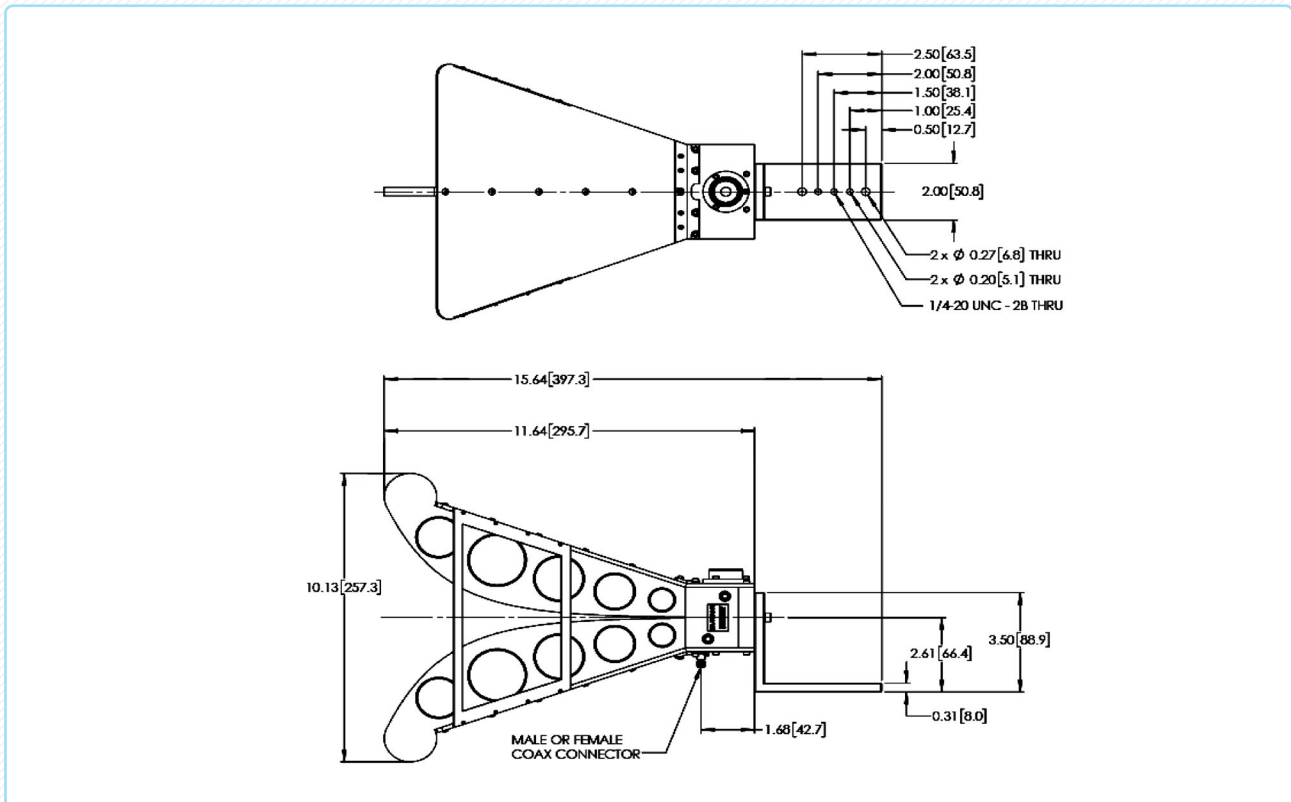
(Unless otherwise specified, all dimensions are in inches [millimeters])



**MOUNTING BRACKET OUTLINE:**



**ANTENNA WITH MOUNTING BRACKET ATTACHED OUTLINE:**



**NOTE:**

- For simulated data provided, actual measurement may slightly vary.
- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- The EMC Shop 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 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied:  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm). Torque wrench is highly recommended.

