

## SAR-1834031432-KF-S2-DR

### WR-06 Compact Level Setting Attenuator

**SAR-1834031432-KF-S2-DR** is a dual-ridged horn antenna that operates from 18 to 40 GHz. The antenna offers a nominal gain between 12 and 17 dBi and a typical 3 dB beamwidth between 20° and 43°. The antenna supports linear polarized waveforms and features a four-hole mounting plate. The antenna also includes a 3D printed mounting fixture with a thru ¼-20 holes for convenient tripod mounting and 4 thru ¼-20 thru holes for non-tripod mounting. The RF port offers a female K connector.



#### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	18 GHz		40 GHz
Gain		12 to 17 dBi	
Polarization		Linear	
3 dB Beamwidth		20 to 43°	
10 dB Beamwidth		36 to 92°	
Return Loss		10 dB	
Power Handling		20 W (CW)	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

#### Mechanical Specifications:

Item	Specification
Antenna Port	K(F)
Mounting	Ø 0.16" Thru Holes
Material	Aluminum
Finish	Gold Plated
Mounting Plate Finish	Chem Film
Weight	2.5 Oz
Fixture Material	PLA
Outline	AR-AK14-DR

#### ECCN

EAR99

#### FEATURES

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

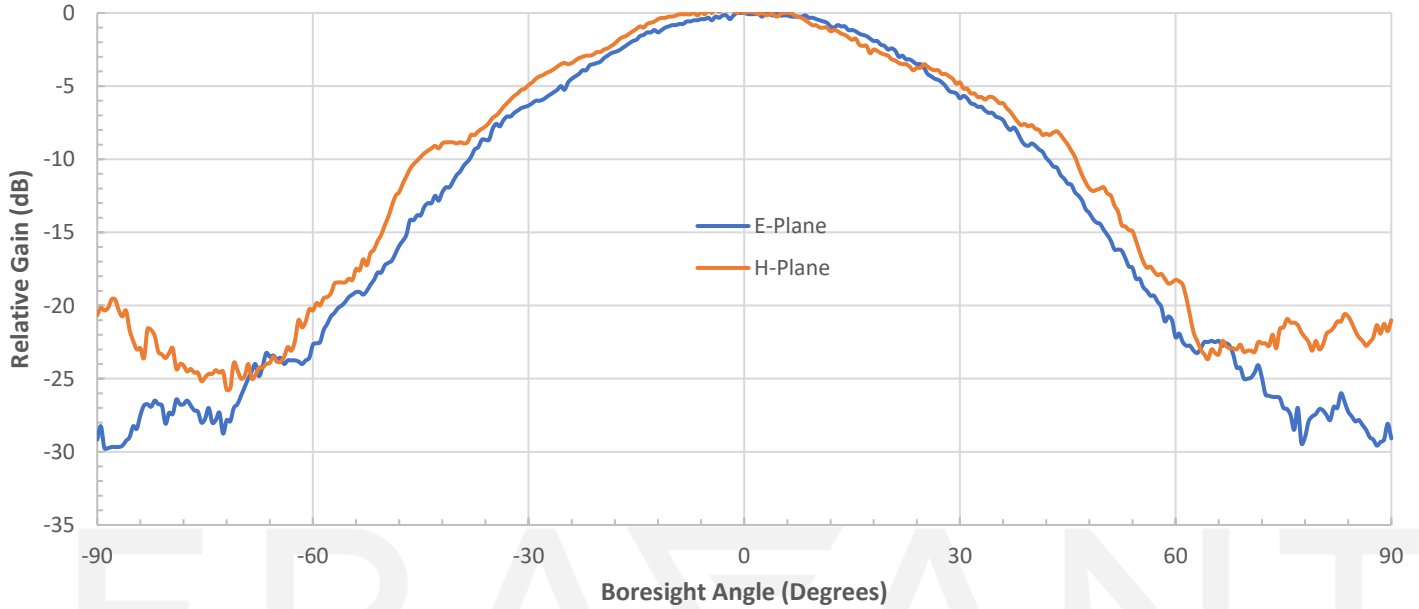
#### APPLICATIONS

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

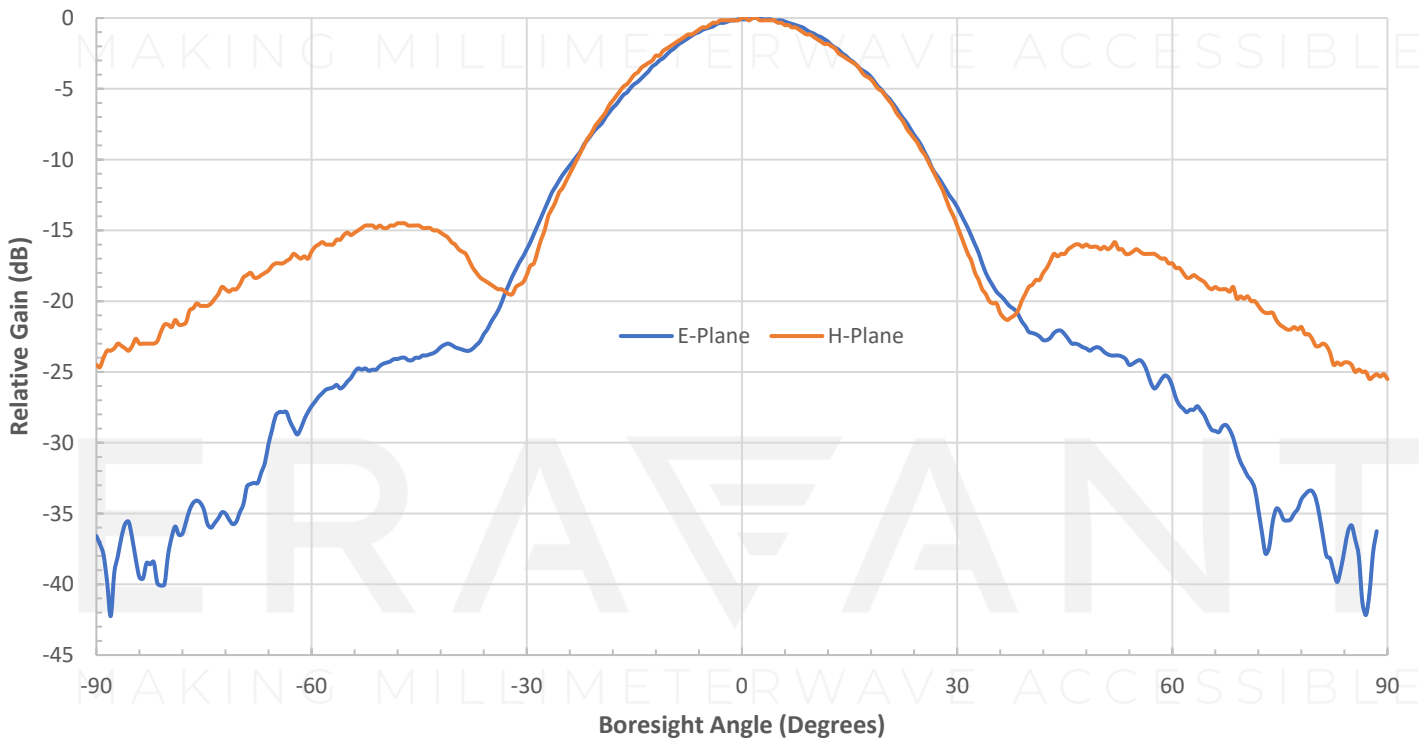
#### SUPPLEMENTAL DETAILS



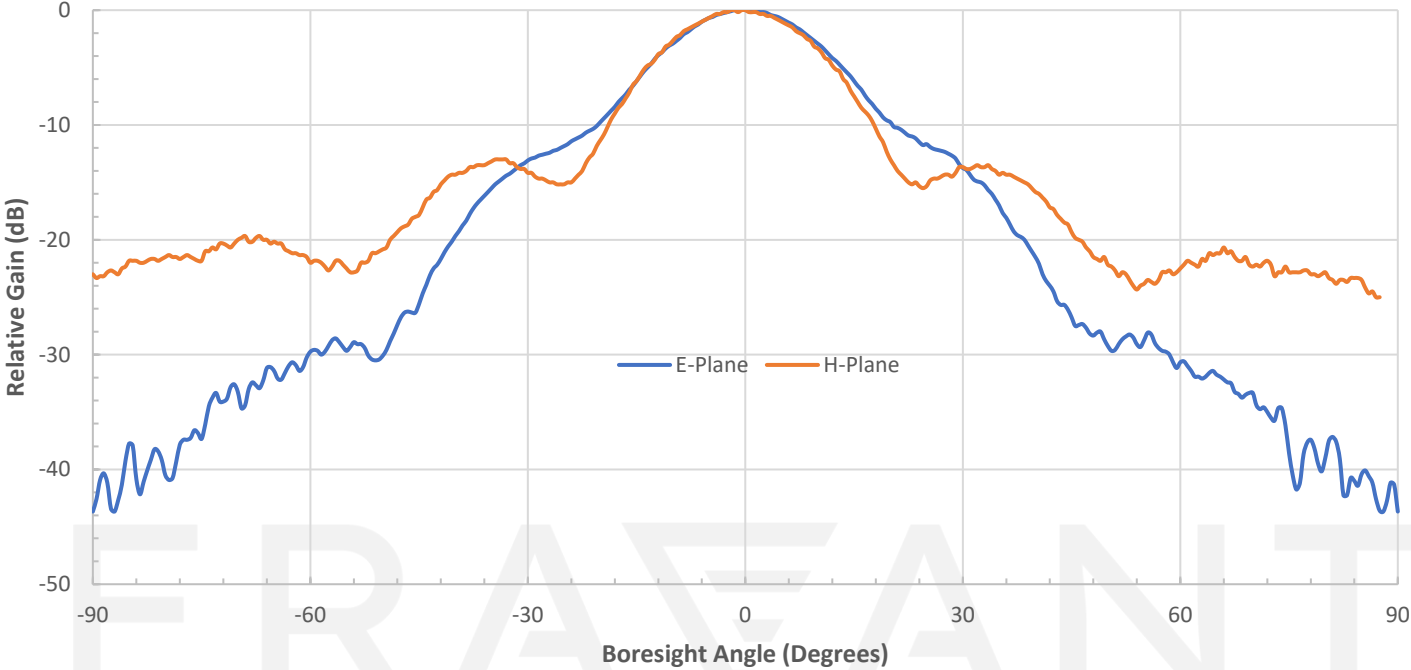
### Typical Antenna Pattern @ 18 GHz



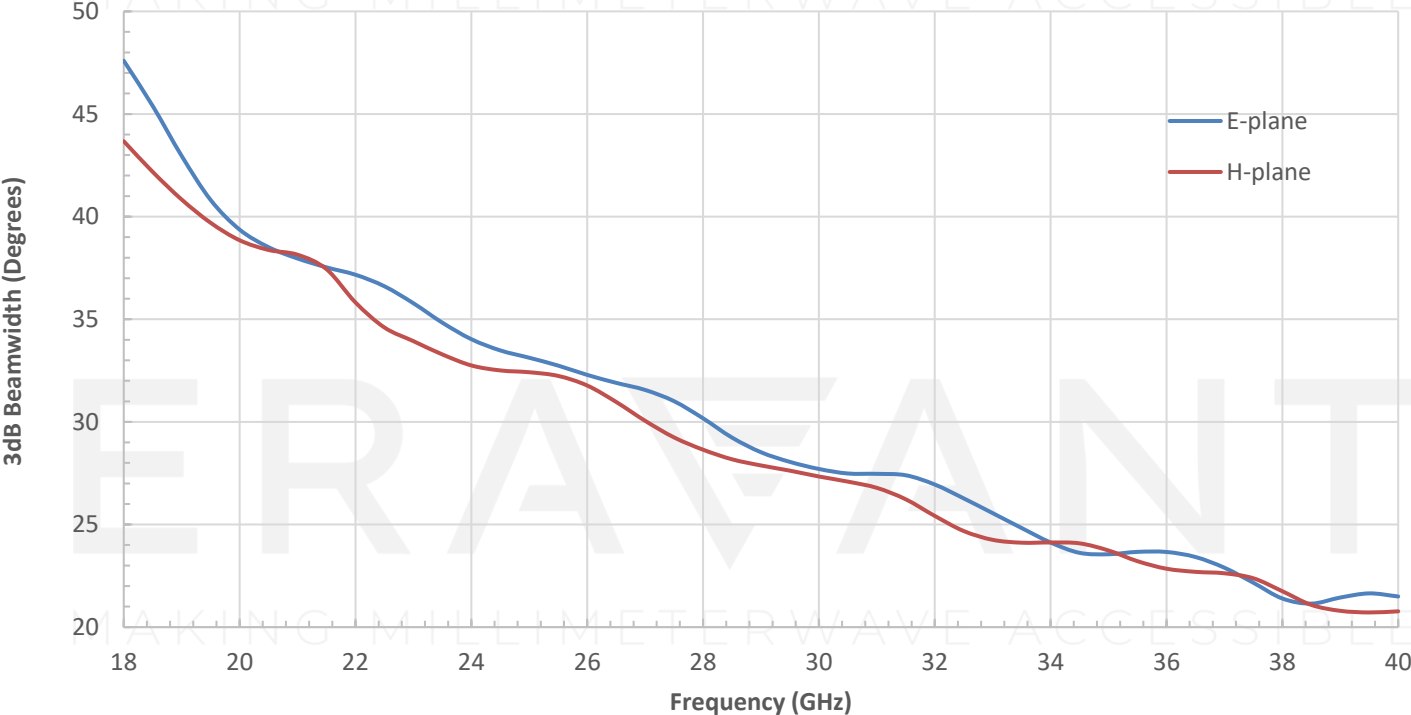
### Typical Antenna Pattern @ 29 GHz



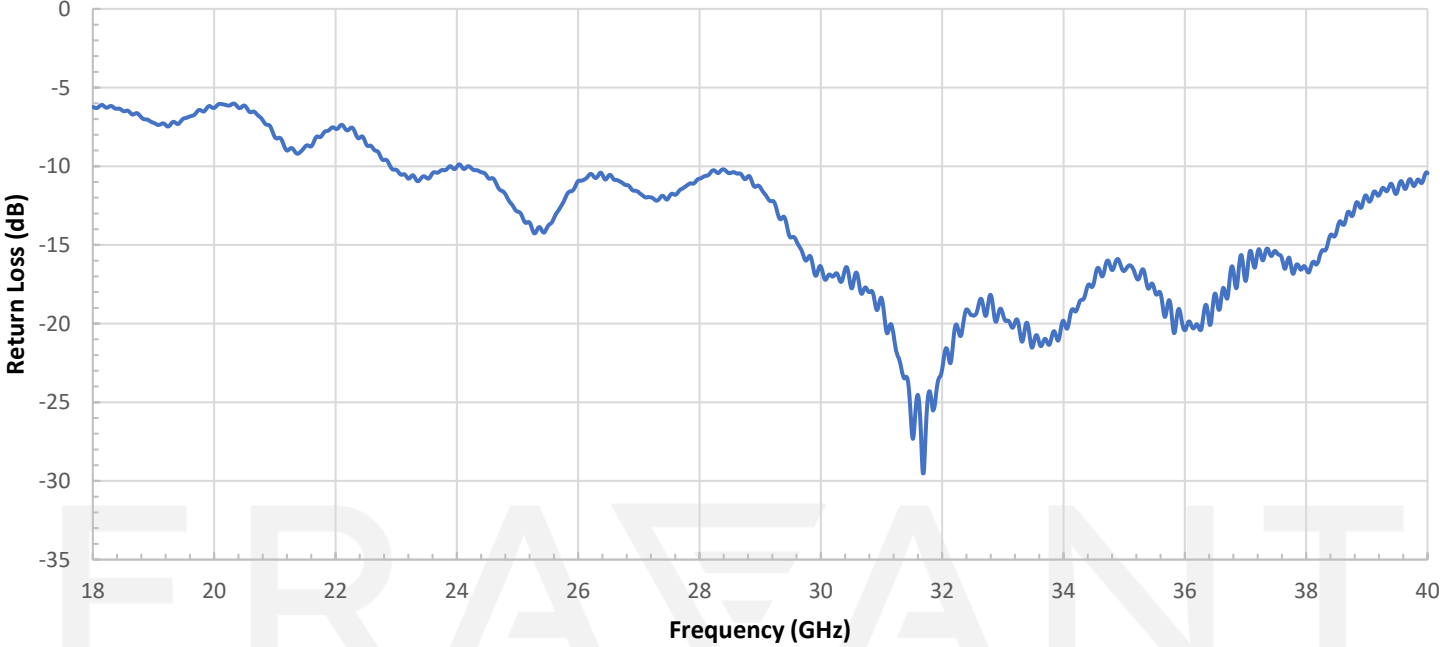
### Typical Antenna Pattern @ 40 GHz



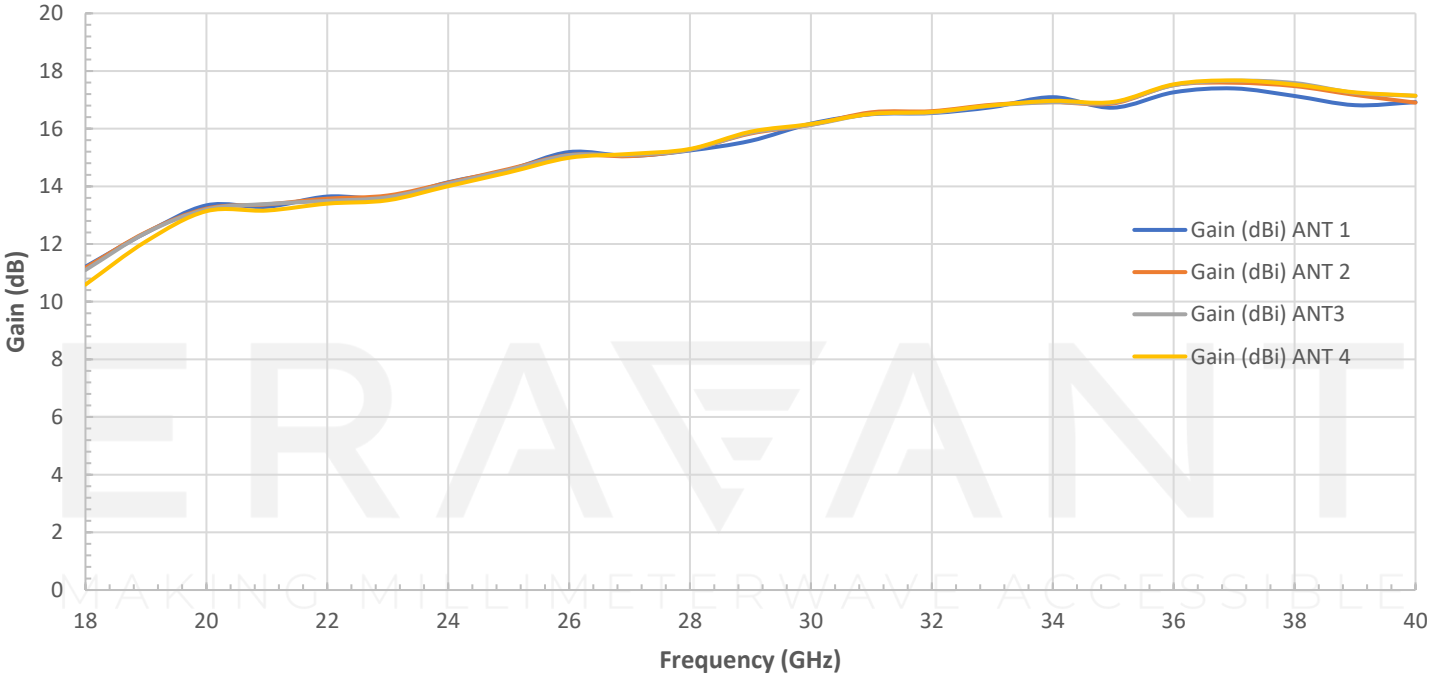
### Simulated E and H Plane 3dB Beamwidth vs. Frequency



Typical Return Loss vs. Frequency

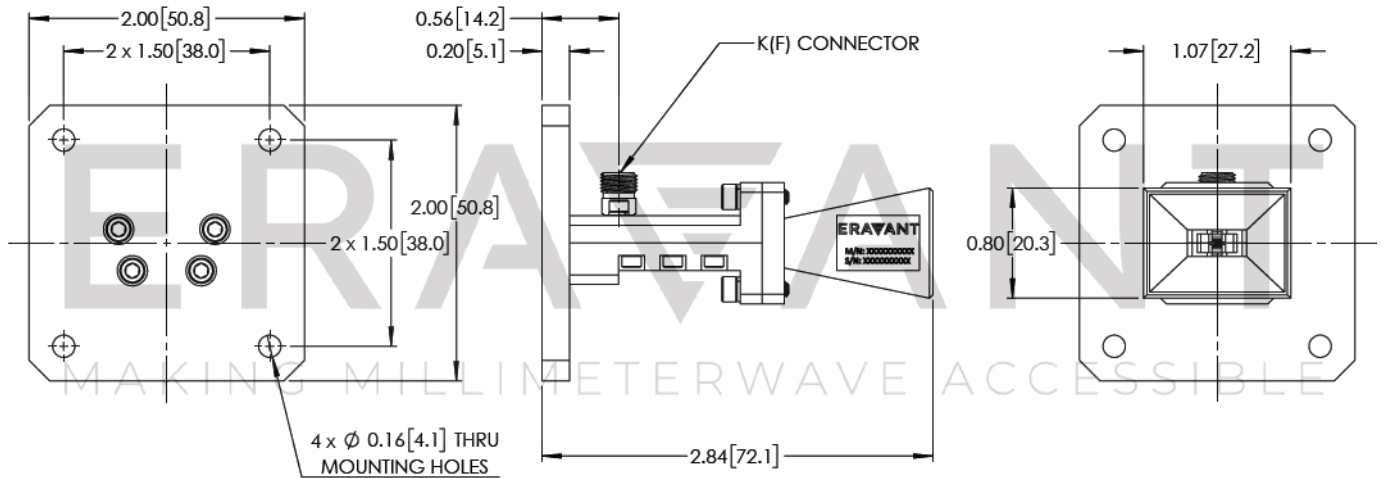


Typical Gain vs. Frequency

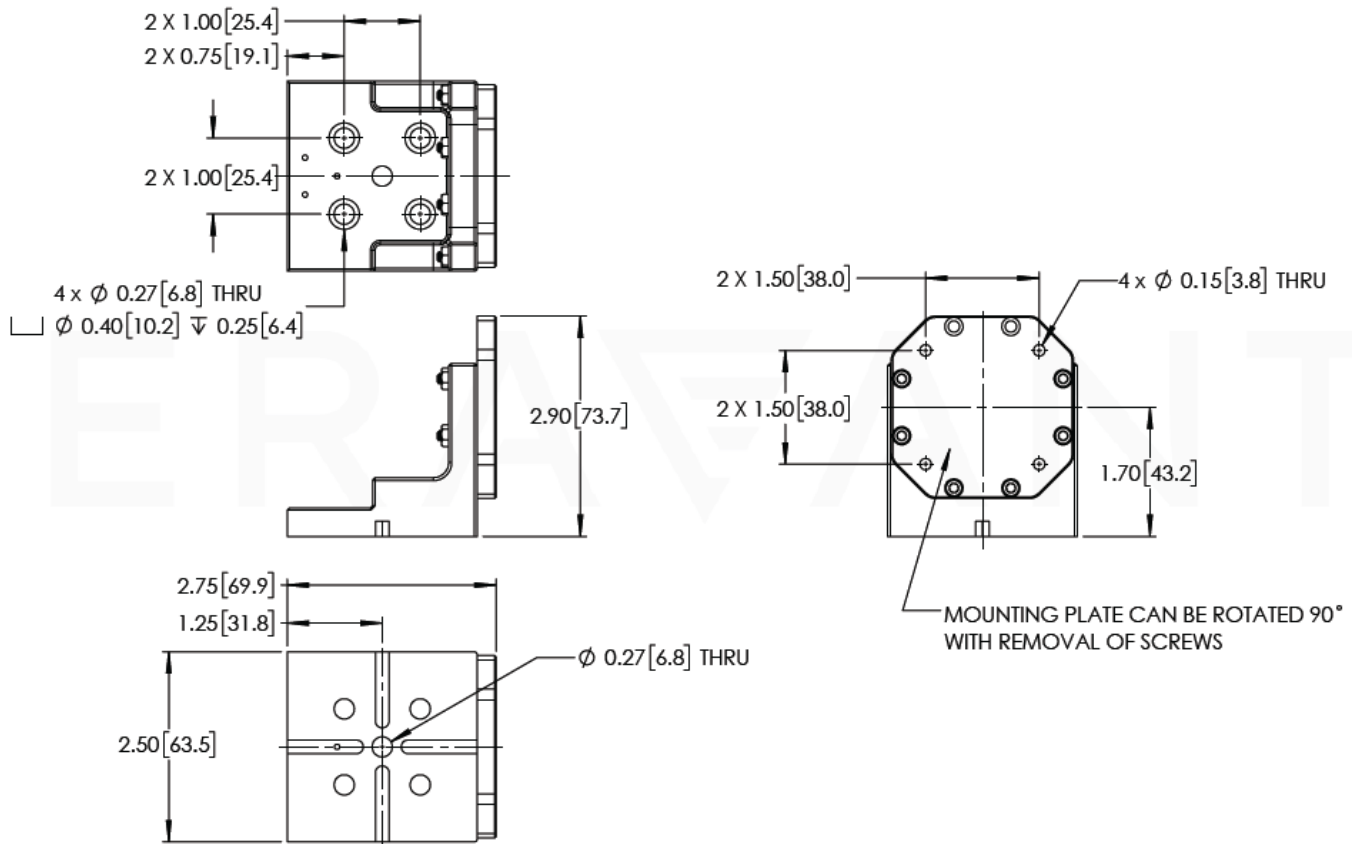


## SAR-1834031432-KF-S2-DR

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



**Antenna Mount Outline:**



**NOTE:**

- This antenna is a mature product. The reason for only providing simulated data can be found in the following blog [here](#).
- Test data provided is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- 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.
- 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 model [SCH-08008-S1](#) is highly recommended.

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