# SAA-2019-15-S2

## WR-15 Diagonal Horn Antenna, 20 dBi Gain

**SAA-2019-15-S2** is a V-band diagonal horn antenna that operates from 50 GHz to 75 GHz. The antenna offers 20 dBi nominal gain and a typical half power beamwidth of 19 degrees on both E-plane and H-plane, respectively. The antenna supports linear polarized waveforms. The input of this antenna is a WR-15 waveguide with UG-385/U anti-cocking flange.

### Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---|---|---|---|
| Frequency | 50 GHz | | 75 GHz |
| Gain | | 20 dBi | |
| 3 dB Beamwidth, E-Plane | | 19° | |
| 3 dB Beamwidth, H-Plane | | 19° | |
| Polarization | | Linear | |
| Sidelobes, E-Plane | | -16 dB | |
| Sidelobes, H-Plane | | -10 dB | |
| Return Loss | | 23 dB | |
| Specification Temperature | | +25°C | |
| Operating Temperature | -40°C | | +85°C |

### Mechanical Specifications:

| Item | Specification |
|---|---|
| Antenna Port | WR-15 Waveguide with UG-385/U Anti-Cocking Flange |
| Material | Aluminum |
| Finish | Gold Plated |
| Weight | 0.3 Oz |
| Outline | AA-V1-A |

### ECCN

EAR99

### FEATURES

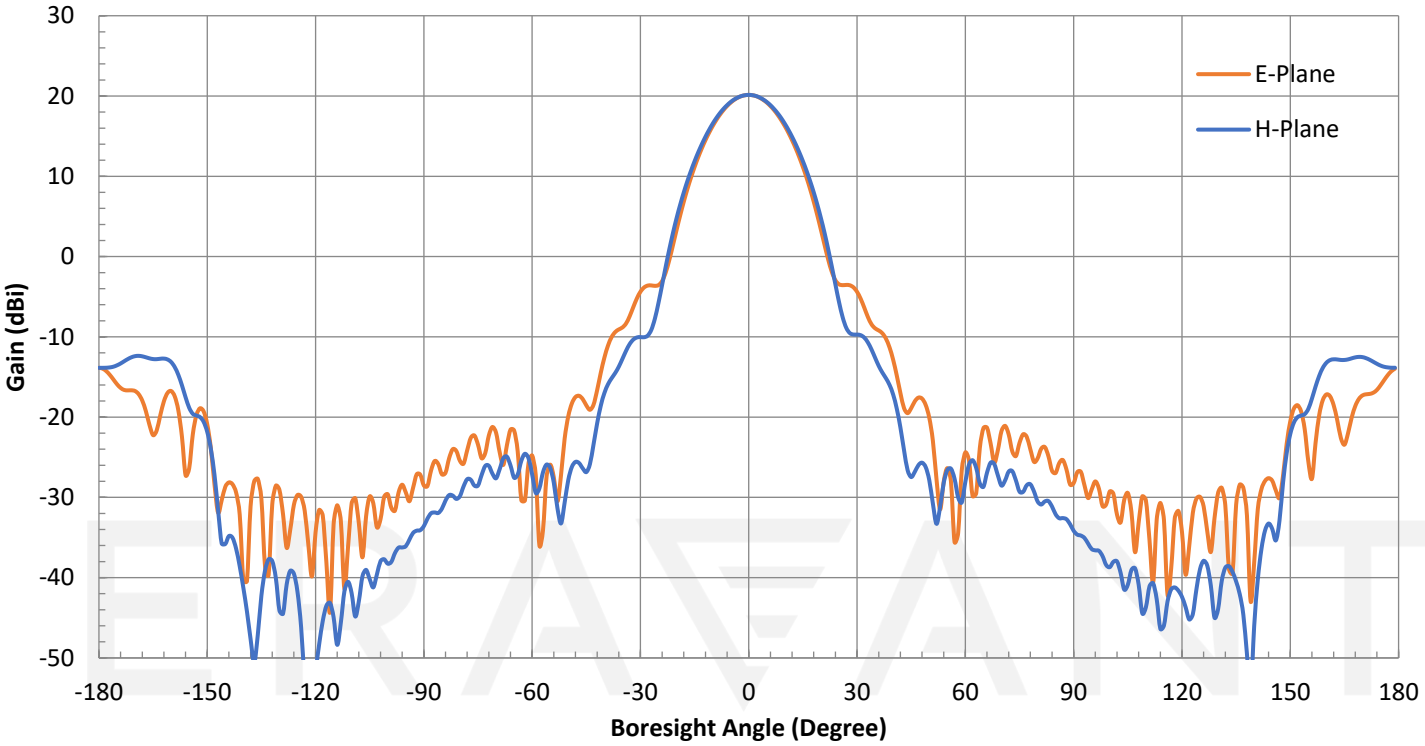
- Rectangular Waveguide Interface
- Precisely Machined and Gold Plated
- Linear Polarization
- High Return Loss

### APPLICATIONS

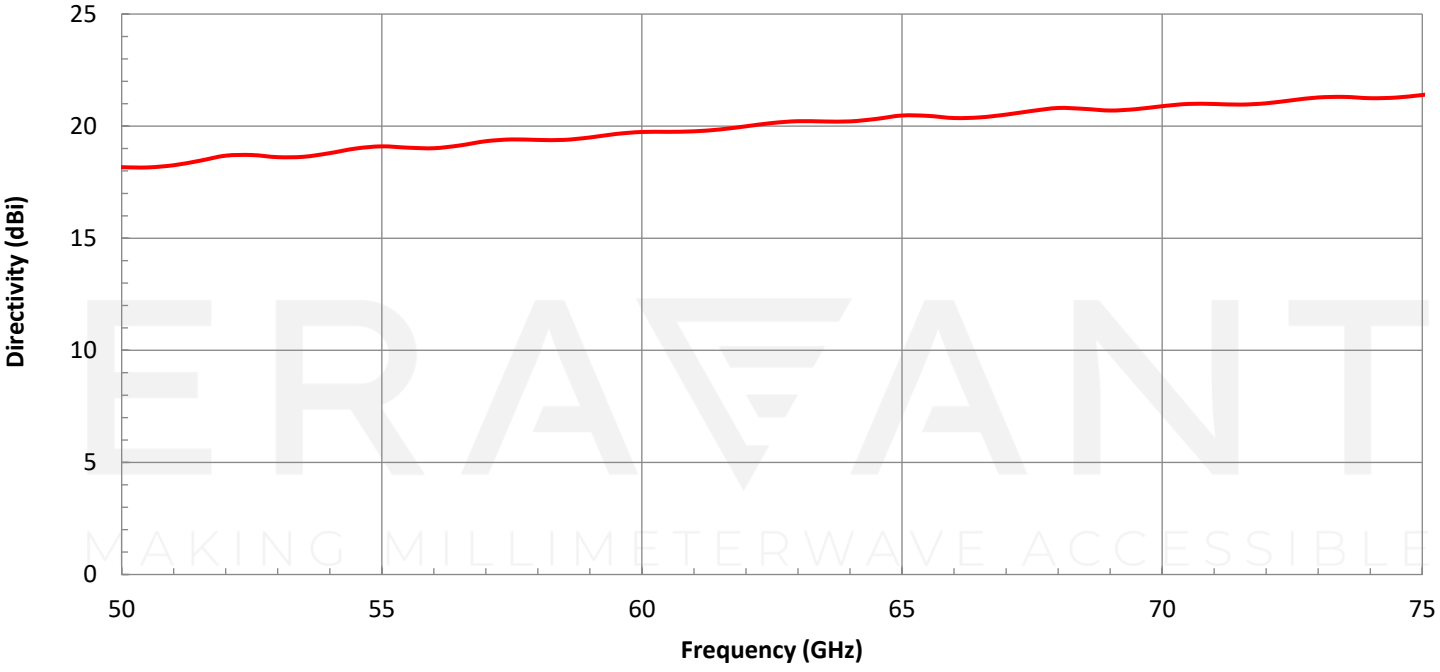
- Antenna Ranges
- Antenna Gain Measurements
- System Setups

### SUPPLEMENTAL DETAILS

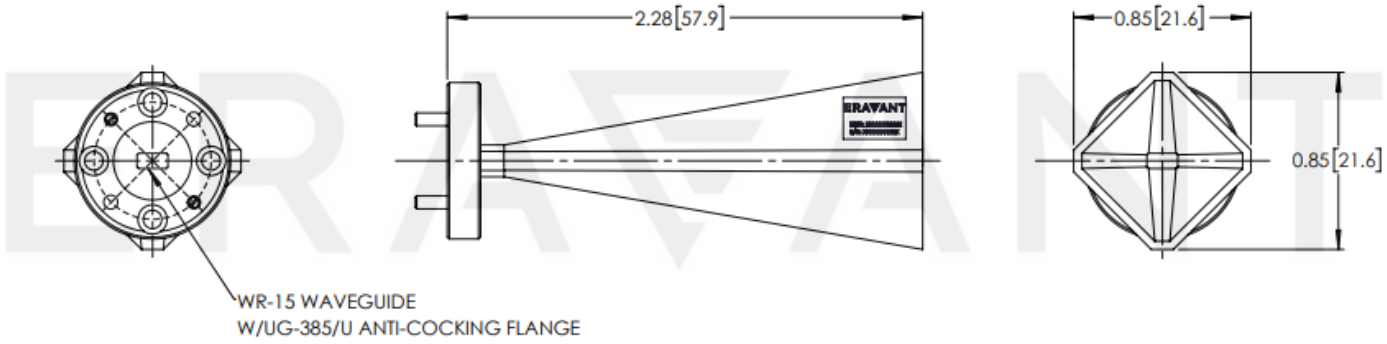
## Simulated Antenna Pattern @ 62.5 GHz




## Simulated Directivity vs. Frequency



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




**NOTE:**

- All data presented is simulated. Actual data may vary slightly.
- This antenna is a mature product. The reason for only providing simulated data can be found in the following blog here.
- Photo on datasheet is not final and does not represent the final product.
- 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.