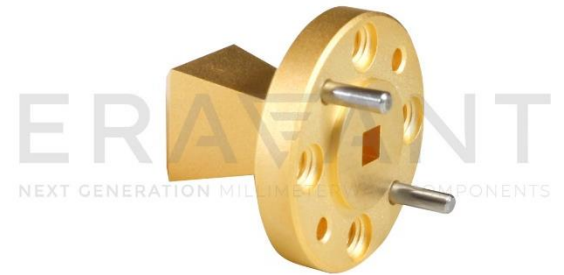


## SAR-1532-148-S2

## WR-15 Square Horn Antenna, 15 dBi Gain

**SAR-1532-148-S2** is a square horn antenna that operates from 50 GHz to 75 GHz. The antenna offers 15 dBi nominal gain and a typical half power beamwidth of 28 degrees on the E-plane and 33 degrees on the H-plane. The antenna supports linear polarized waveforms. The input of this antenna is a 0.148" x 0.148" square waveguide with UG-385/U-M flange.



## Electrical Specifications:

| Parameter                 | Minimum  | Typical | Maximum |
|---------------------------|----------|---------|---------|
| Frequency Range           | 50 GHz   |         | 75 GHz  |
| Gain                      | 13.6 dBi | 15 dBi  | 17 dBi  |
| Polarization              |          | Linear  |         |
| 3 dB Beamwidth, E-Plane   |          | 28°     |         |
| 3 dB Beamwidth, H-Plane   |          | 33°     |         |
| Sidelobes, E-Plane        |          | -13 dB  |         |
| Sidelobes, H-Plane        |          | -36 dB  |         |
| Return Loss               |          | 9 dB    |         |
| Specification Temperature |          | +25°C   |         |
| Operating Temperature     | -40°C    |         | +85°C   |

## Mechanical Specifications:

| Item         | Specification                    |
|--------------|----------------------------------|
| Antenna Port | 0.148" x 0.148" Square Waveguide |
| Flange Type  | UG-385/U-M Flange                |
| Material     | Brass                            |
| Finish       | Gold Plated                      |
| Weight       | 0.4 Oz                           |
| Size         | 0.75" (L) X 0.75" (Ø)            |
| Outline      | AR-V15-148                       |

## ECCN

EAR99

## FEATURES

- Square Waveguide Interface
- Precisely Machined and Gold Plated
- Linear Polarization
- High Return Loss
- Compact Size

## APPLICATIONS

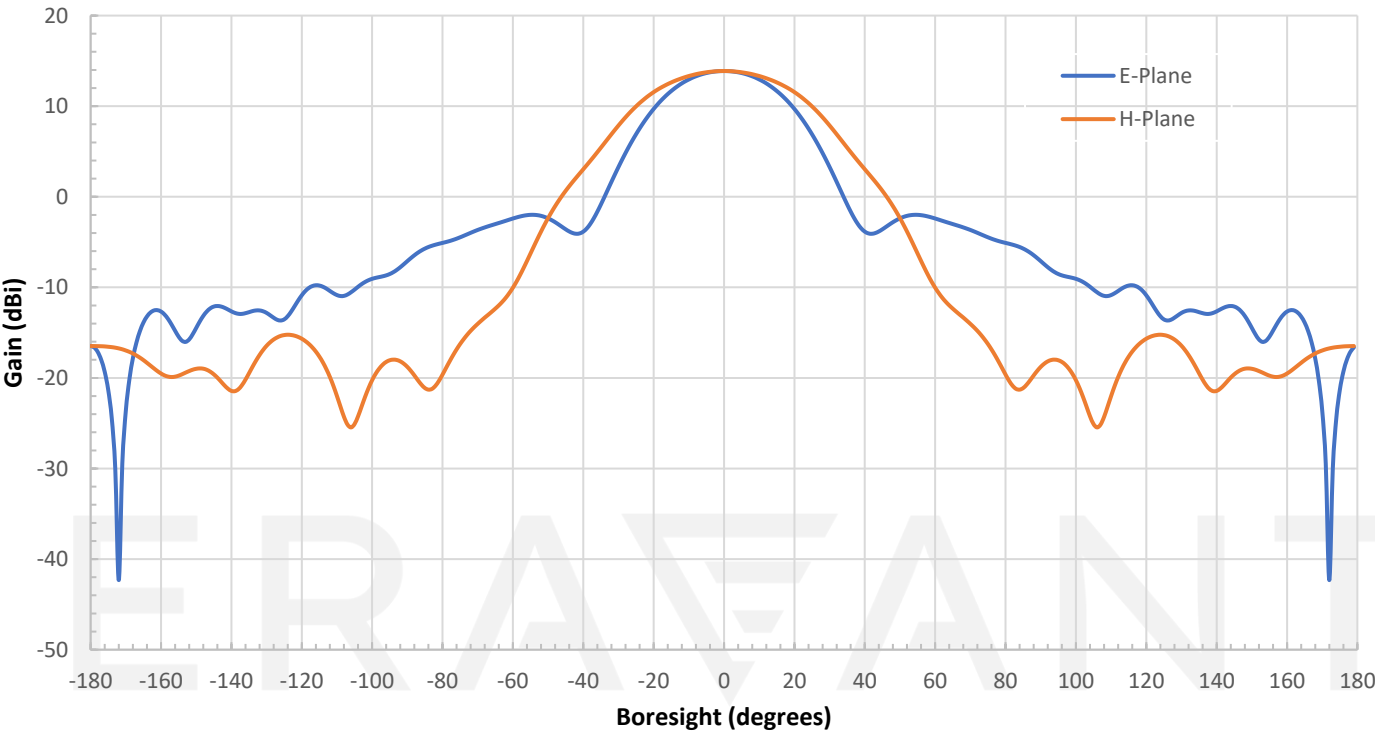
- Antenna Ranges
- Antenna Gain Measurements
- System Setups

## SUPPLEMENTAL DETAILS

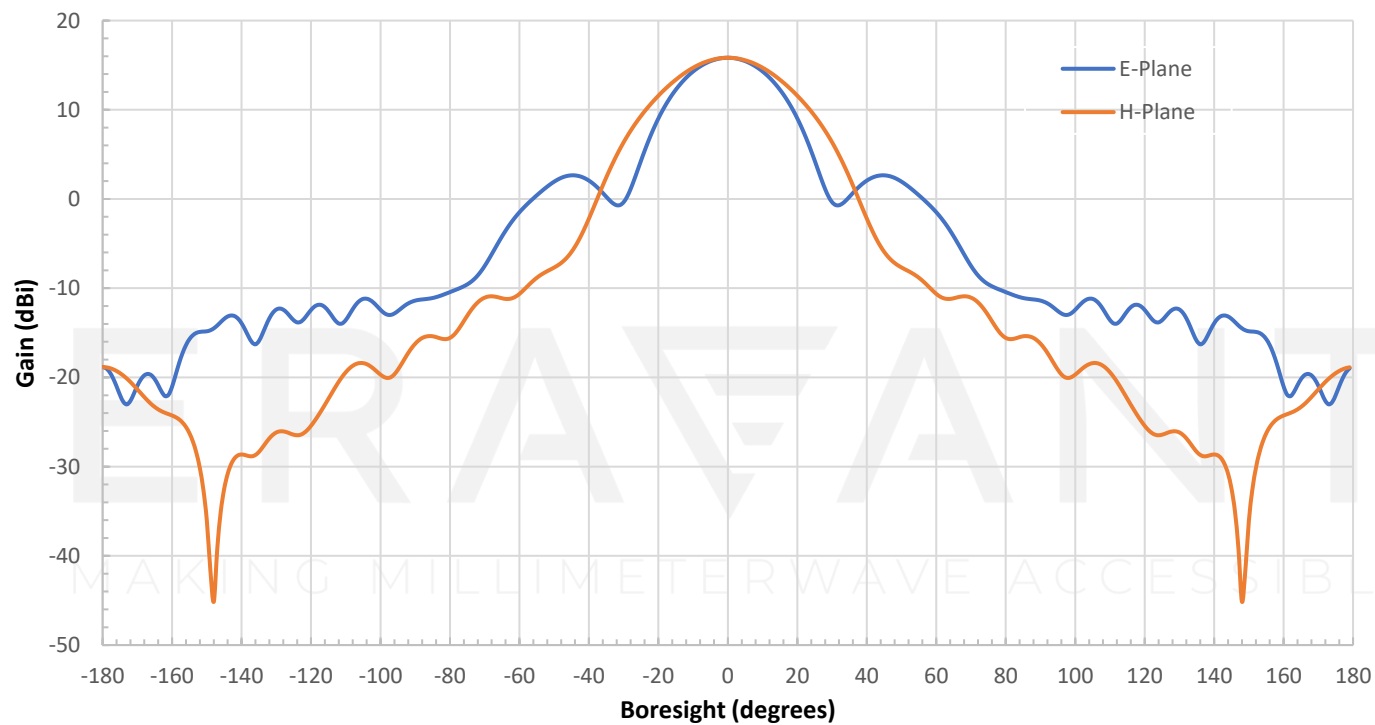


SAR-1532-148-S2

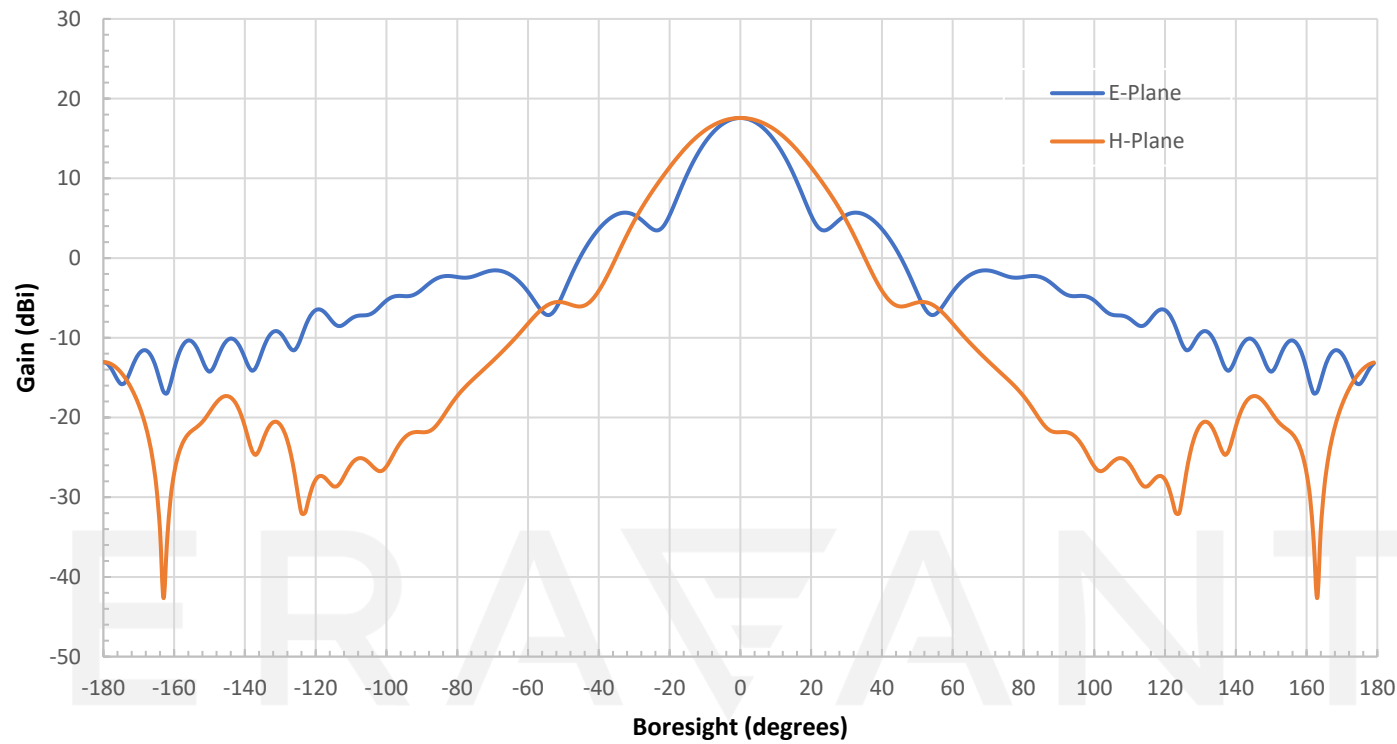
Simulated Antenna Patterns @ 50 GHz



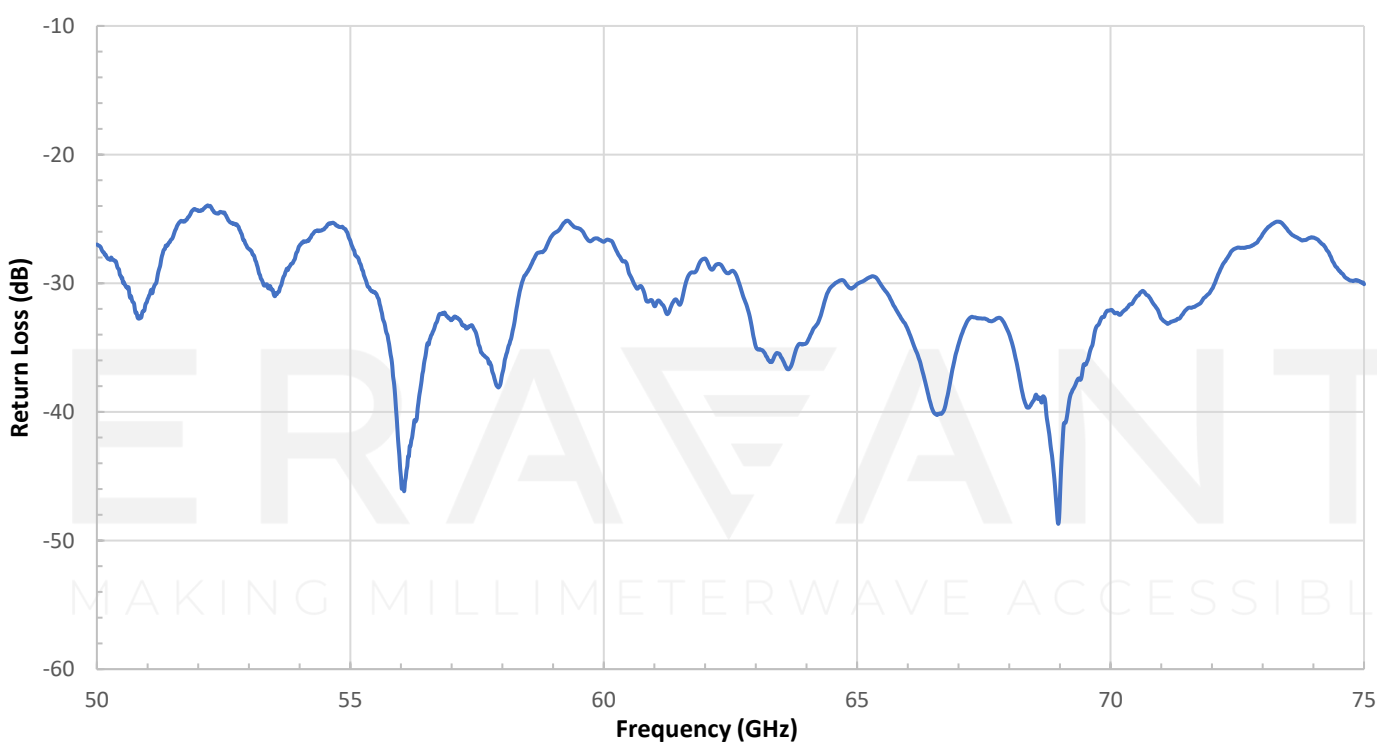
Simulated Antenna Patterns @ 62.5 GHz



Simulated Antenna Patterns @ 75 GHz

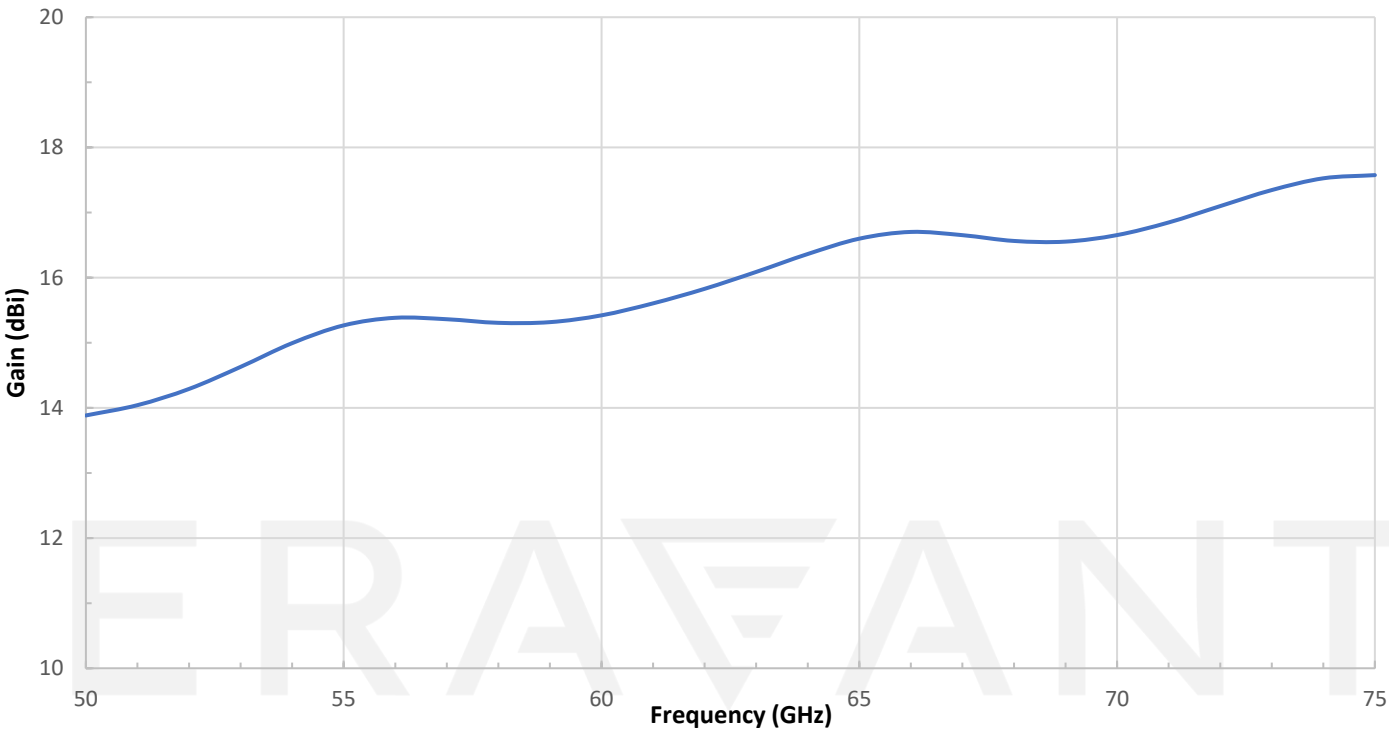


Measured Return Loss vs. Frequency

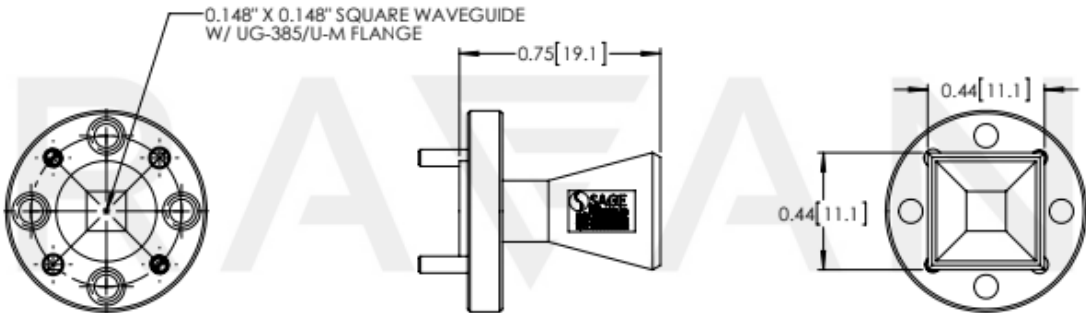


SAR-1532-148-S2

Simulated Gain vs. Frequency



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



**NOTE:**

- This antenna is a mature product. The reasons for only providing simulated data can be found in the following blog [here](#).
- Eravant reserves the right to change the information presented without notice.

**CAUTION:**

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Any foreign objects in the antenna will cause performance degradation and possible device damage.

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