

# W-Band Standard Gain Horn

## 75 to 110 GHz, WR10, 26 dBi Gain

### DESCRIPTION

Anteral's Standard Gain Horns are high performance antennas designed to exhibit smooth gain response in the whole band and very low VSWR. The antenna exterior appearances are designed to minimize weight, improve robustness and offer a sharp aperture. They are manufactured from a single aluminum rod. No soldering for flanges and no screws for attaching parts are included.

The SGH-26-WR10 model operates at the W-band between 75 and 110 GHz with 26 dBi nominal mid-band gain and a typical VSWR of 1.06.

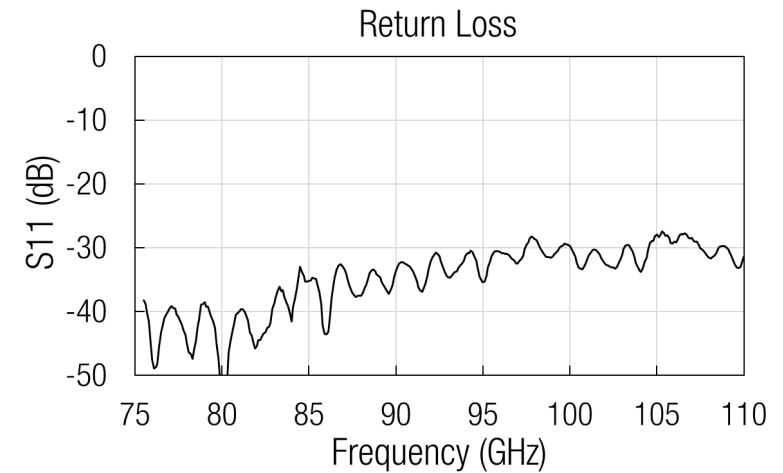
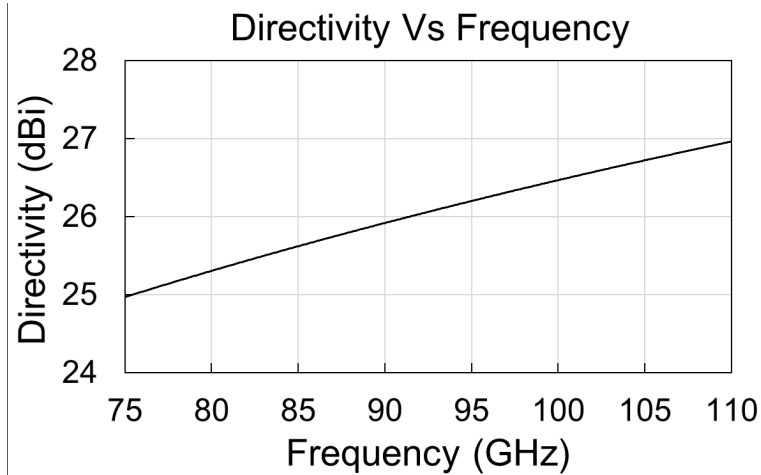
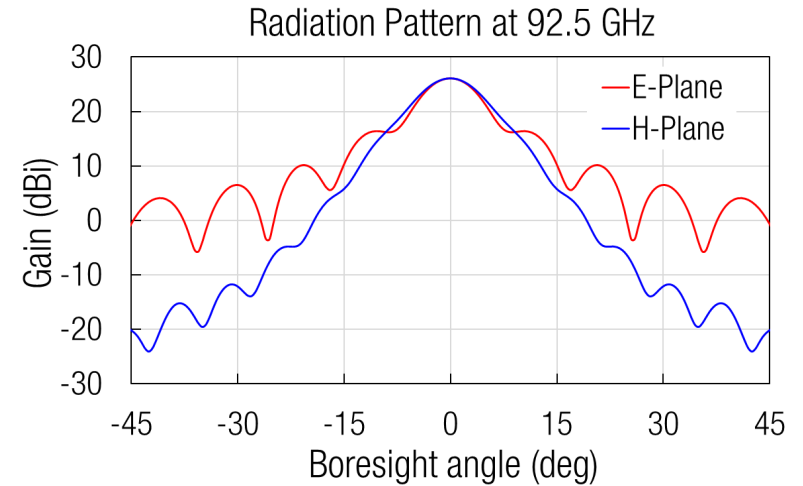
### APPLICATIONS

This type of horns is especially suitable for laboratory test measurements, electromagnetic measurements and gain calibration. Moreover, custom bands and gain values can be requested.

Anteral also offers their **Lens Horn Antennas** with plano-convex Teflon (PTFE) lenses to exhibit high gain (>30 dBi) with minimum size.

### ELECTRICAL SPECIFICATIONS

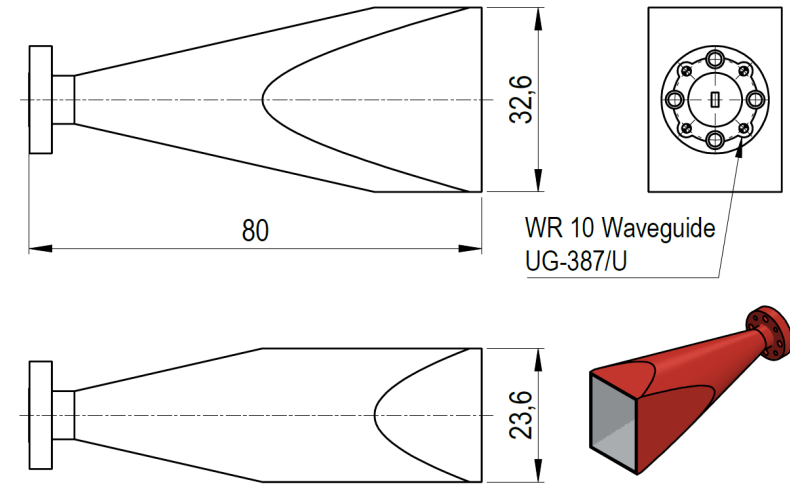
| Parameter               | Minimum | Typical  | Maximum |
|-------------------------|---------|----------|---------|
| Frequency               | 75 GHz  | 92.5 GHz | 110 GHz |
| Directivity             | 25 dBi  | 26 dBi   | 27 dBi  |
| 3 dB Beamwidth, E-plane |         | 7.7 deg  |         |
| 3 dB Beamwidth, H-plane |         | 8.5 deg  |         |
| Sidelobe, E-plane       |         | -10 dB   | -9 dB   |
| Sidelobe, H-plane       |         | -33 dB   | -30 dB  |
| S11                     |         | -30 dB   | -25 dB  |



### MECHANICAL SPECIFICATIONS

| Parameter      | Description               |
|----------------|---------------------------|
| Antenna Port   | WR-10 (2.54 mm x 1.27 mm) |
| Flange         | UG-387/U                  |
| Length         | 80 mm                     |
| Total weight   | 39 g                      |
| Material       | Aluminum                  |
| External Color | Ruby Red                  |

### MECHANICAL OUTLINE



### Additional notes

Directivity and radiation pattern data are simulated. Actual values have been checked experimentally but they could vary slightly.

Return loss data are measured from a sample.

The return loss performance of all items is checked before delivery to fulfill specifications.