# Ultra-Wideband Directional Antenna

700 MHz to 8 GHz — UWB700-D

## Key Features

- Extremely wide bandwidth and consistent directional radiation patterns with end-fire gain up to 9 dBi
- VSWR typically below 2:1
- Very thin, lightweight, and compact for a broadband directional antenna operating down to 700 MHz
- Professionally designed and hand-tested by engineers in the United States


UWB700-D

## Applications

- Measurement, test, and experimentation
- Wide bandwidth antenna for software-defined radios
- Cellular (2G, 3G, 4G LTE) and WiFi (2.4 GHz and 5.8 GHz)
- Electromagnetic surveillance and direction finding
- University research projects

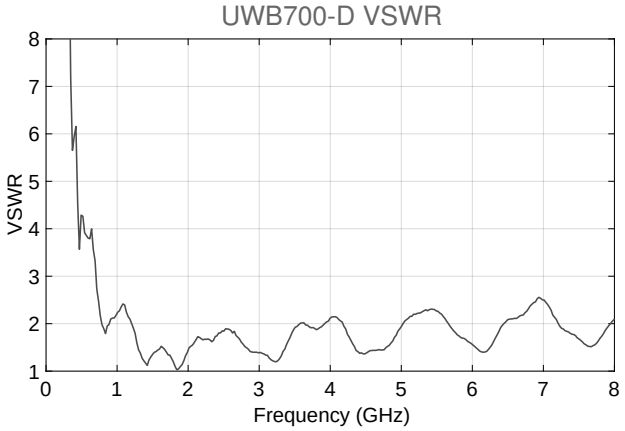
## Design Specifications

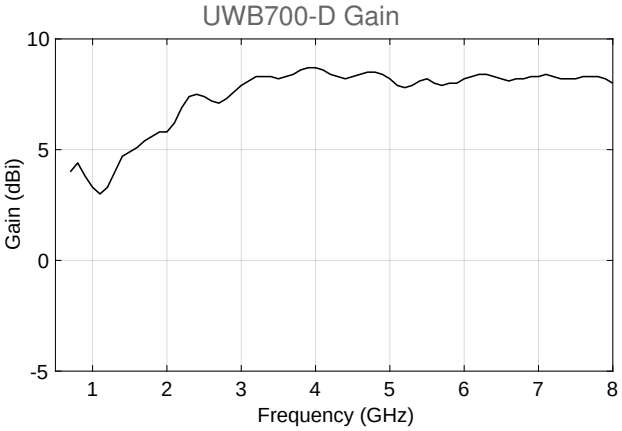
- Design: Antipodal Vivaldi
- Operating Frequency: 700 MHz to 8.0 GHz
- Polarization: Linear (horizontal/vertical based on orientation)
- Connector: SMA Female
- Body Material: FR-4
- Length: 7.4 in [189 mm]
- Width: 7.9 in [200 mm]
- Height: 0.25 in [6.35 mm] (including SMA connector)

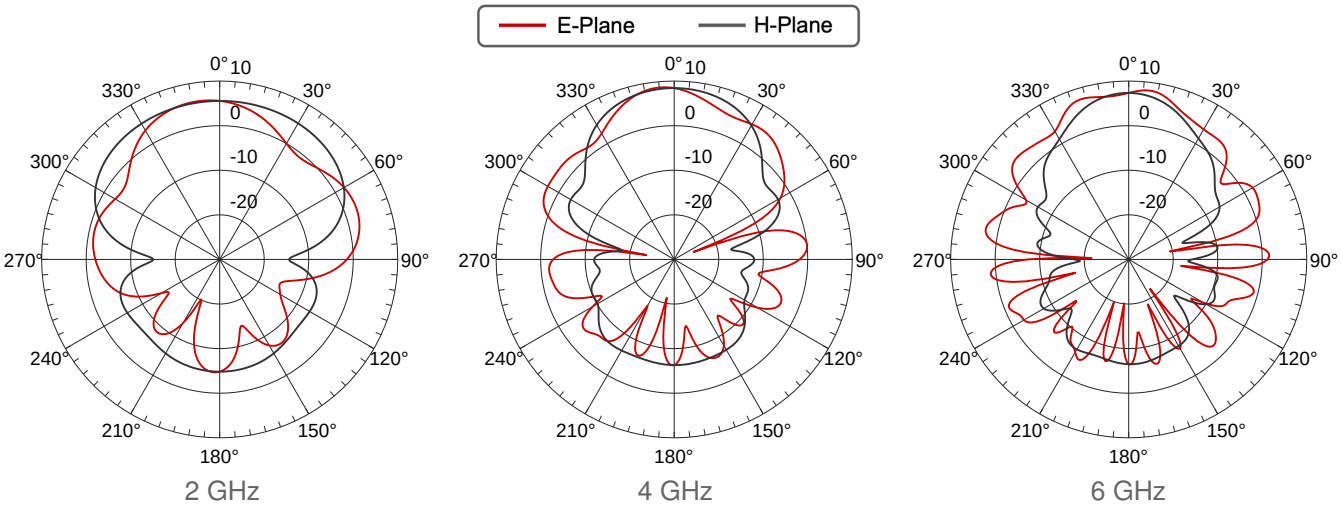
## Performance Specifications

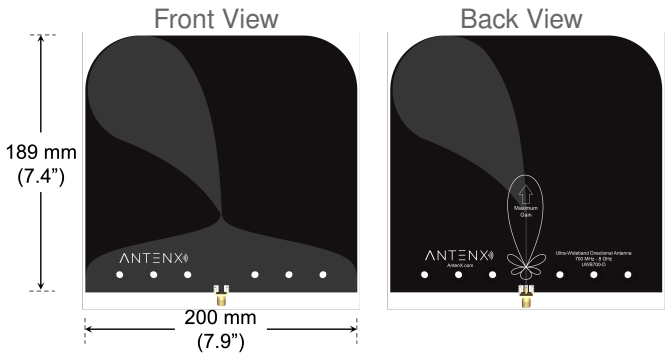
| Parameter | | Frequency | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| VSWR | | 700 MHz – 1.2 GHz | 1.9 | 2.3 | 3.0 | – |
| | | 1.2 GHz – 3.9 GHz | 1.1 | 1.4 | 2.0 | |
| | | 3.9 GHz – 8 GHz | 1.4 | 1.9 | 2.6 | |
| Gain | | 700 MHz – 8 GHz | 3.0 | 8.0 | 8.7 | dBi |
| HPBW | E-Plane | 700 MHz – 8 GHz | 34 | 50 | 84 | deg. |
| | H-Plane | | 31 | 60 | 153 | |
| Input Power | | 700 MHz – 8 GHz | – | – | 10 | dBm |
| Impedance | | – | 50 | | | Ω |
| Connector | | – | SMA (female) | | | – |

## Typical Performance

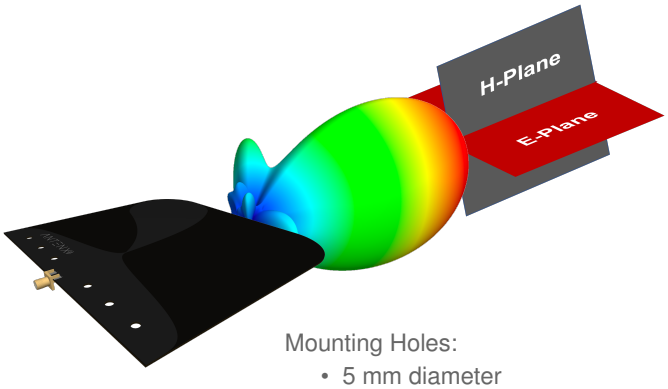



1.2 mm thick (6.35 mm thick including SMA connector)




Mounting Holes:

- 5 mm diameter
- 25 mm spacing