

dbDIRECT



Broadband Vivaldi Antenna

700 MHz – 6 GHz

Product number: 099155

Product Information

The dbDIRECT Broadband Antenna features broad frequency range of operation, high gain, small form factor and directional radiation pattern, making it highly attractive for widespread use in test and measurement of emerging wireless technology devices and radars. Contrary to conventional vivaldi antennas limited to operating only at higher frequencies, the dbDIRECT Broadband Antenna design is optimized to operate at a frequency as low as 700 MHz up to 6 GHz. This lightweight and compact antenna design provides excellent matching over a broad frequency range.

The antenna is designed to be placed in a DVTest's portable anechoic chamber such as the dbSAFE enclosures for OTA (Over the Air) testing of DUTs. The antennas can be mounted in fixed positions to facilitate repeatable results. When used in conjunction with a rotary positioning mechanism, customers are able to detect the highest point of power sensitivity for enhanced accuracy and repeatability in measurements. In this configuration both the antennas and DUTs can be positioned in order to facilitate the measurement.

Application

- RF wireless device testing in Anechoic chambers where directional and high gain link required with DUT
- 3G, 4G,5G and 5G New Radio (5G NR), Carrier aggregation, MIMO
- LTE, LTE-A, WIMAX, WiFi, Bluetooth, GPS, GSM, Z-Wave, LoRa
- Spectrum Analysis in DAS environment, Radars, IoT

Specifications:

Frequency range: 700 MHz - 6 GHz Maximum

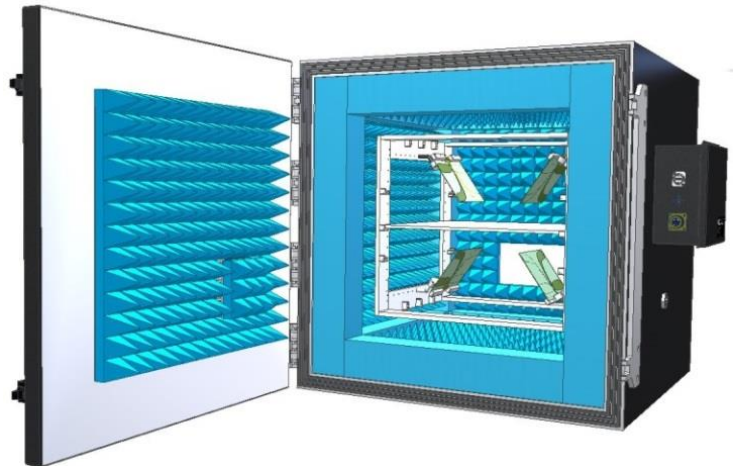
Continuous Power: 5 W

Connector: 50Ω SMA (f)

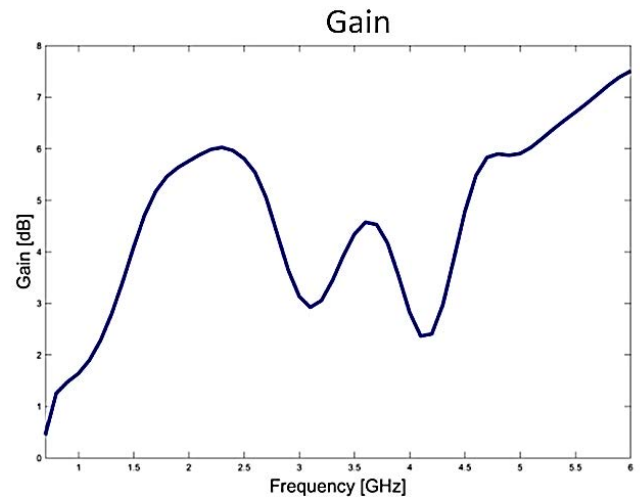
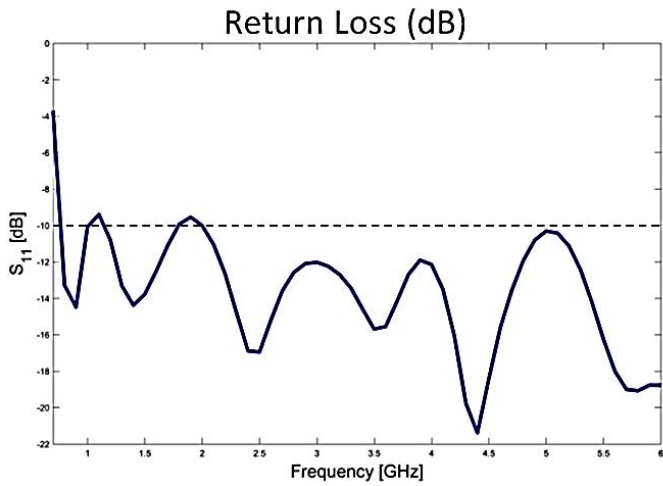
Polarization: Linear

Dimensions: 125 mm x 158 mm

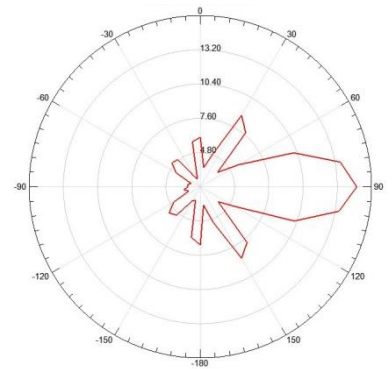
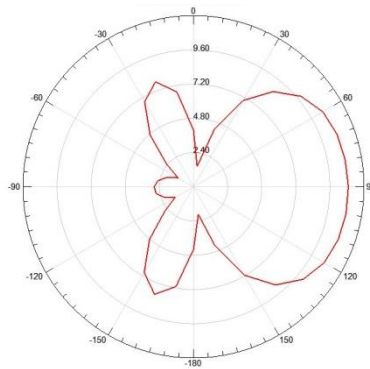
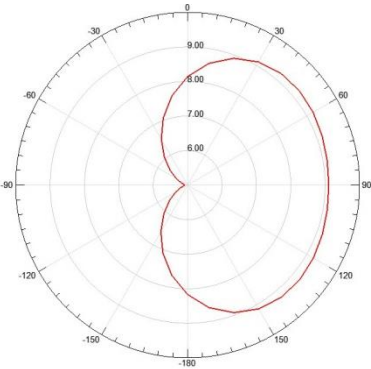
Approximate Weight: 100g



dbDirect Broadband Vivaldi Antenna
Simulated Antenna Characteristics:



Radiation Pattern



Measured Antenna Characteristics:

Antenna was measured using the instruments below:

- Walk-in anechoic chamber (16'x12'x11'), 18" pyramid absorber liner
- Frequency range of chamber 700 MHz-40 GHz
- Ultra-wideband reference ridged Horn antenna (700 MHz-10 GHz)

