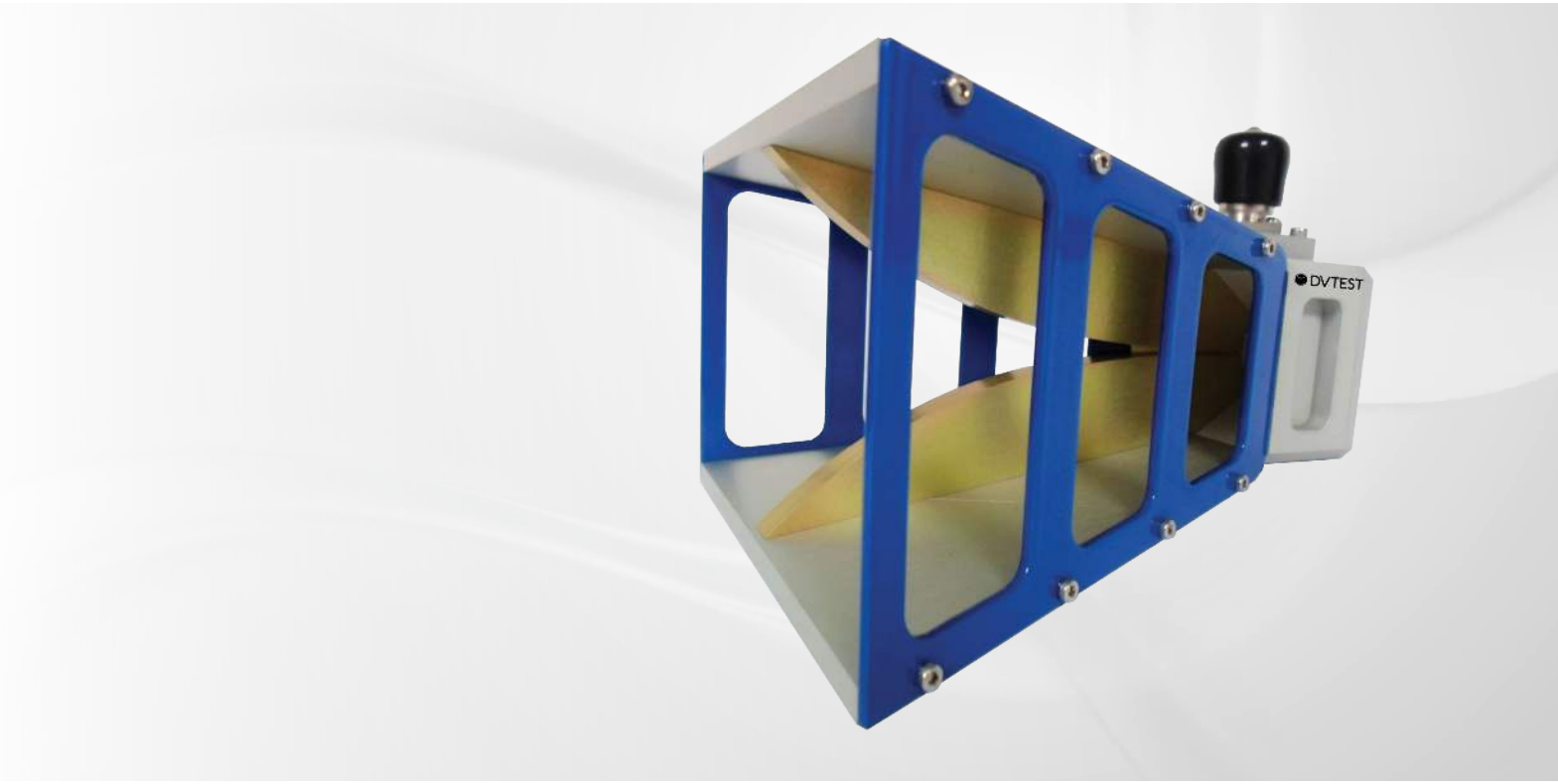
dbDIRECT DRH1 Broadband Antenna

DVTEST
Best Isolation. Better Results.



Double Ridged Broadband Horn Antenna
2 GHz to 18 GHz

The dbDIRECT DRH1 Broadband Antenna, featuring high gain, a directional radiation pattern, and a large frequency range covering a broad range of common applications such as the test and measurement of 4G, 5G, 5G NR, WiMax, WiFi and Bluetooth. This compact antenna design provides excellent matching over a broad frequency range: 2 GHz to 18 GHz.

The antenna is designed to be placed in an RF test enclosure such as any of the DVTEST dbSAFE Series models for OTA testing of DUTs. The antennas can be mounted in fixed positions to facilitate repeatable results. When used in conjunction with a rotary positioning mechanism such as DVTEST positioners, customers can 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.

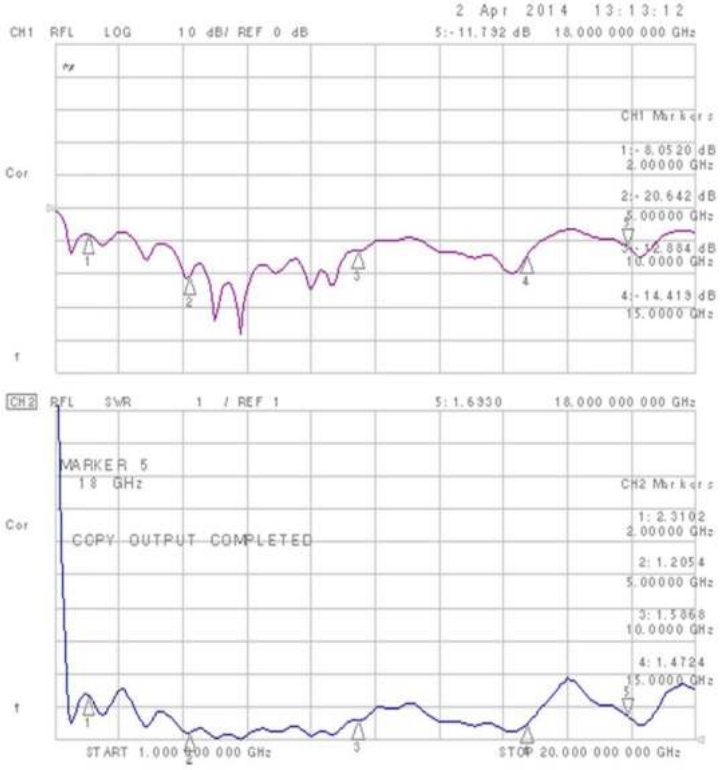
Applications

- RF wireless device testing in Anechoic chambers where directional and high gain link required with DUT
- 4G, 5G and 5G new radio (5G NR), Carrier aggregation, MIMO
- LTE, LTE-A, WiMAX, WiFi, Bluetooth
- Spectrum Analysis in DAS environment, radars

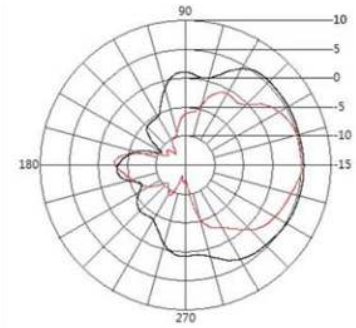
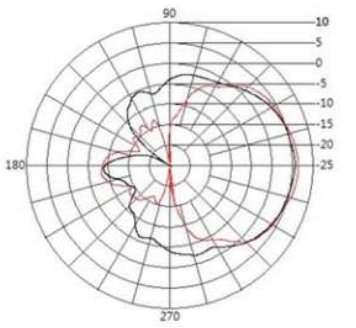
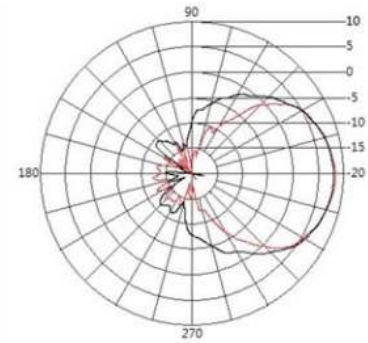
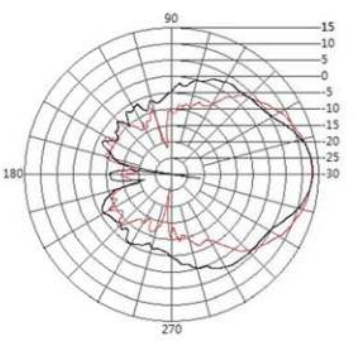
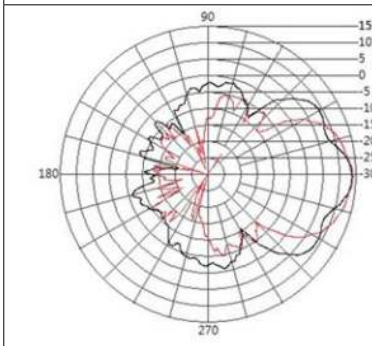
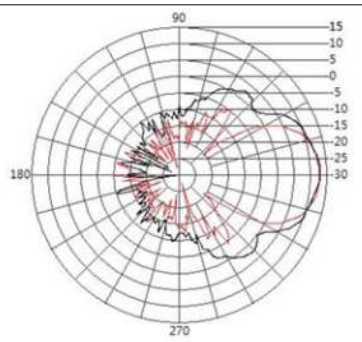
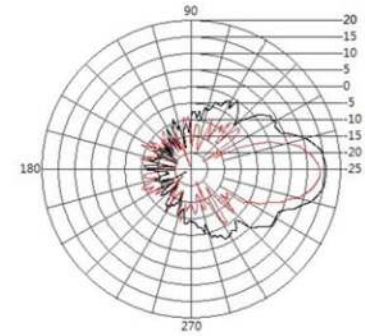
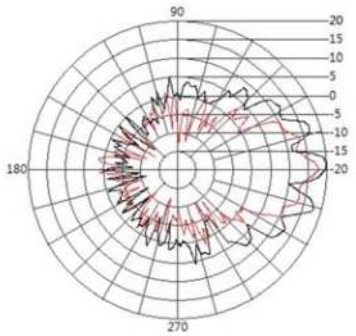
Specifications for dbDIRECT DRH1 Broadband Antenna

Frequency Range	2 GHz - 18 GHz
Maximum Input Power	300 W
Maximum Continuous Power	150 W
RF Connector	50Ω N Type, Female
Polarization	Linear
Dimensions WxDxH Inch (mm)	5.59” (142) x 4.72” (120) x 3.27” (83)
Approximate Weight	500 g
Gain	6 - 20 dBi
Return Loss	S11

Return Loss and VSWR



Antenna Pattern — H-Plane — E-Plane

1.5 GHz	2 GHz
	
3 GHz	6 GHz
	
9 GHz	12 GHz
	
15 GHz	18 GHz
	

Antenna Gain

Frequency (MHz)	H-Plane Gain (dBi at 3 m)	E-Plane Gain (dBi at 3 m)
2000	6.31	5.63
3000	8.42	8.06
4000	10.81	10.3
5000	11.85	11.78
6000	13	13.18
7000	13.57	14
8000	13.89	14.18
9000	13.86	13.88
10000	13.7	13.69
11000	12.94	13.01
12000	12.85	12.99
13000	13.75	14.05
14000	13.86	15.1
15000	14.45	15.29
16000	16.93	18.23
17000	17.28	18.95
18000	16.86	19.58

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