

Test Report for Antenna Specifications

Frequency range and operation

Antenna 2: BT+ZIGBEE(2.4G-2.48G),

Antenna 1: WIFI (2.4G-2.48G,5.15G-5.85G,5.945G-7.125G)

Antenna type

Antenna 2: IFA

Antenna 1: IFA

Antenna Gain

Band	ANT1	ANT2
	2.4, 5, 6 GHz-wifi	BT/BLE/ZB
BT/BLE Band 2400-2480MHz		3.9
2.4GHz Band 2400-2480MHz	3.8	
5GHz Band I (5150-5250MHz)	3.8	
5GHz Band II-A (5250-5350MHz)	3.3	
5GHz Band II - C (5470-5725MHz)	3	
5GHz Band III (5725-5850MHz)	3.5	
6GHz Band V (5945-6425MHz)	3.6	
6GHz Band VI (6245-6525MHz)	3.5	
6GHz Band VII (6525-6875MHz)	3.9	

6GHz Band VIII (6875-7125MHz)	3.5	
Zigbee (2405 - 2475MHz)		3.9

Lab address: OTA Laboratory, No. 268, Dongfang Road, Xincheng Street, Kuiwen District, Weifang City, Shandong Province, china.

Measurement test method:

Solder pigtails on feeding point of antenna and measure passive antenna performance by VNA and OTA chamber system.

Test equipment:

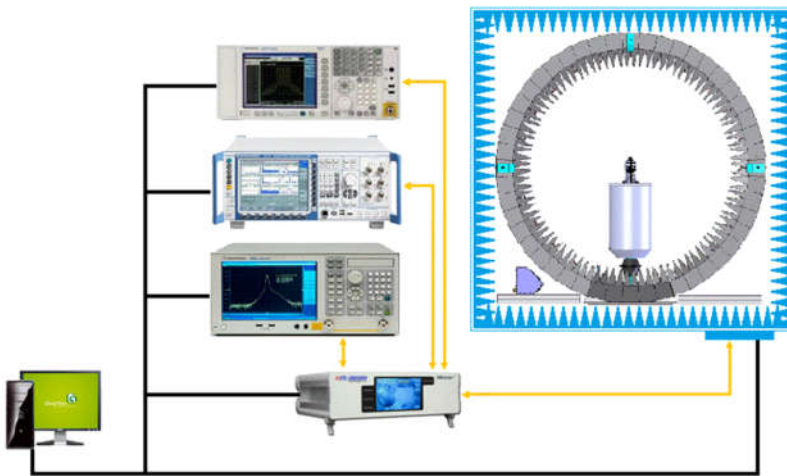
Description	Manufacturer	Model	Serial Number	Cal from	Cal Due
Test Chamber	ETS	AMS8923	Euroshieldpn-CT0000789-1162	Aug 2025	Dec 2033
ENA Network Analyzer	Keysight	E5071C	MY46419524	Jan 2026	1 year

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Equipment setup:

1. Below is a block diagram of the antenna measurement setup.



1. Actual setup picture of the DUT mounted on the turn table inside the anechoic chamber
2. Set up the device on the turn table and connect the pigtailed to the RF cable.

Software used: EMQUEST

Test set-up:

Test Procedure (Passive Antenna Measurement):

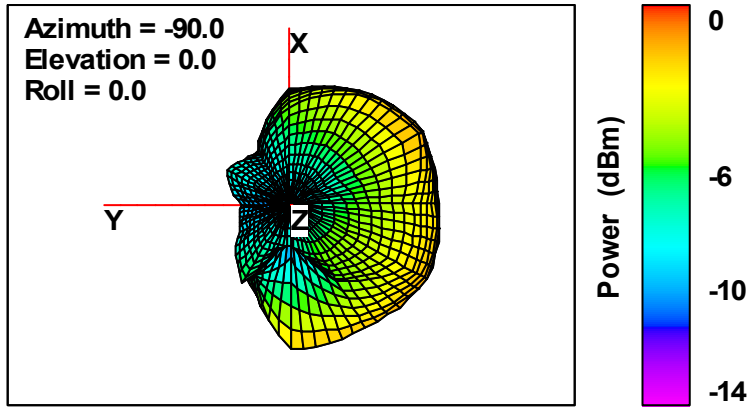
1. Mount the Device Under Test (DUT) on the supporting pole at the center of the anechoic chamber.
2. Connect the DUT antenna port to the measurement system using a coaxial cable at the transmitter side of the chamber.
3. Close the chamber door to eliminate external signal interference during measurement.
4. Launch the antenna measurement system, configure the required test parameters (e.g., frequency points or rotation angles), and import the frequency list for testing.
5. After completing the measurement, process the recorded data and perform far-field data conversion as required.

Antenna radiated pattern orientation:

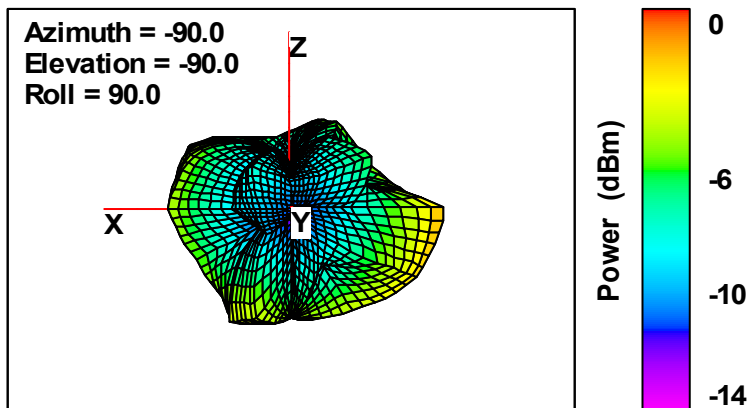
Antenna Radiation Pattern

BT/BLE Antenna

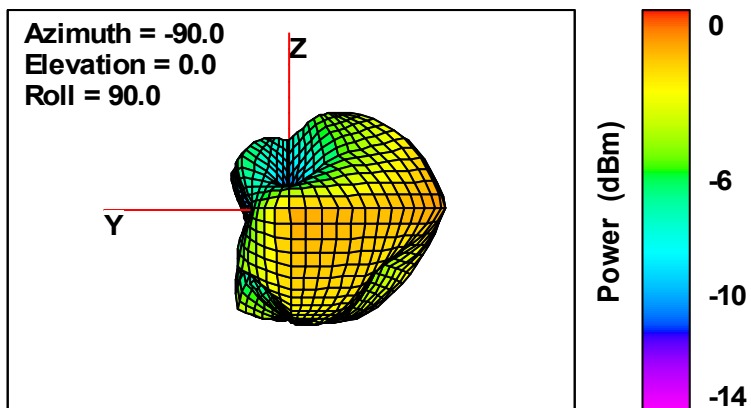
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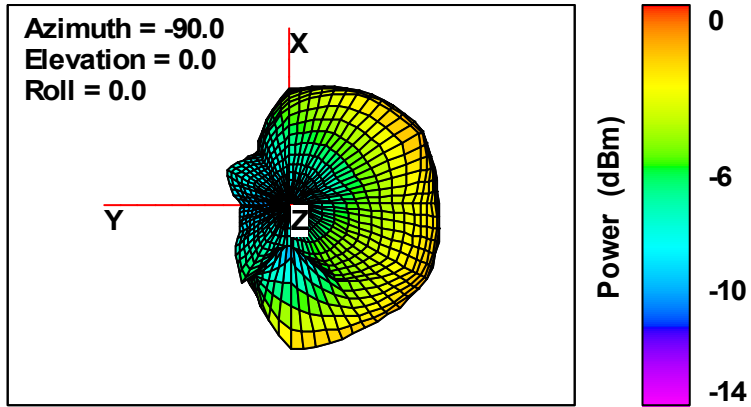


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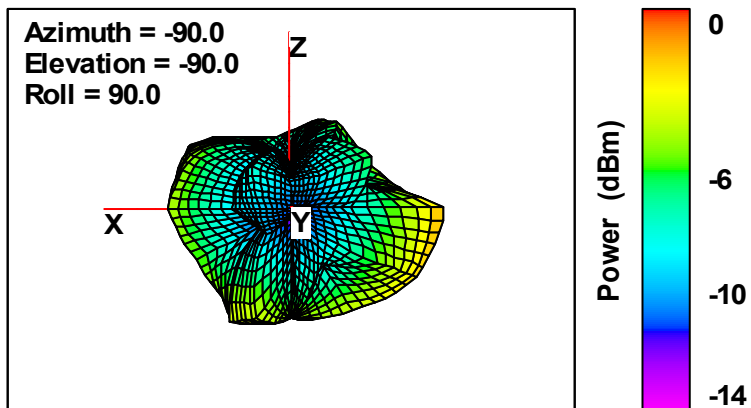


Zigbee Antenna

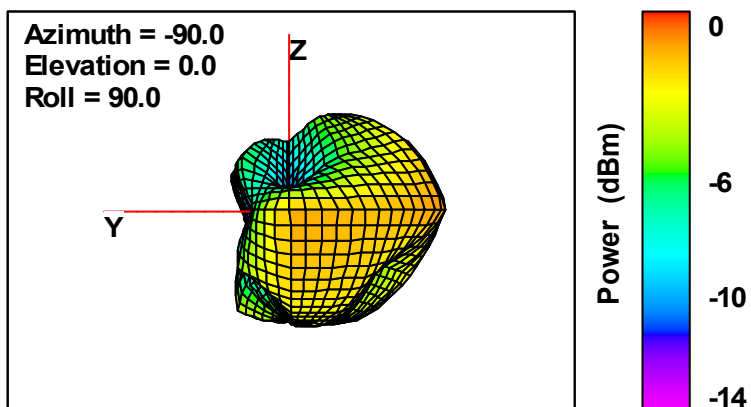
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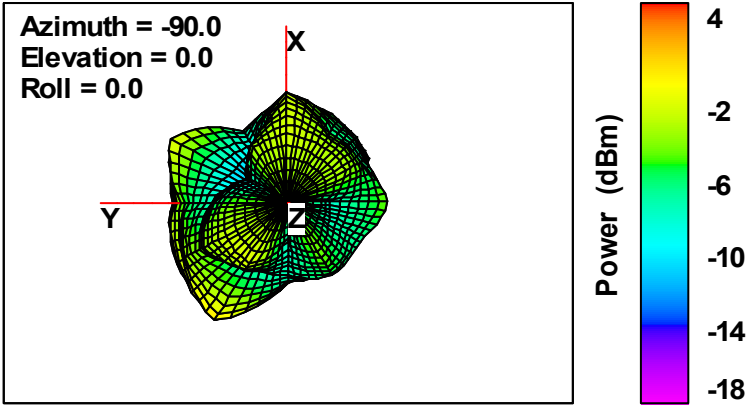


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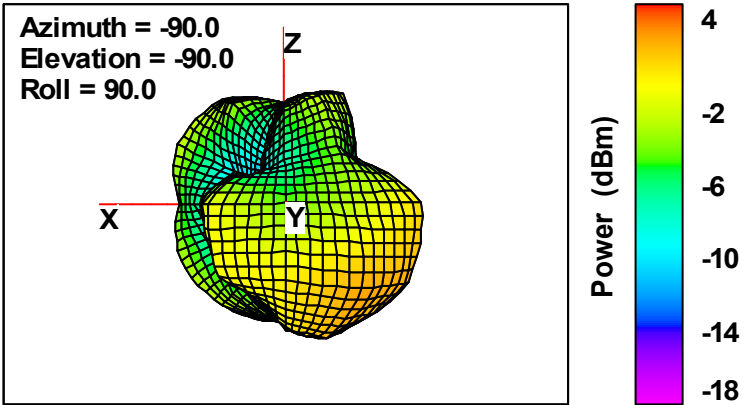


Wifi 2G Antenna

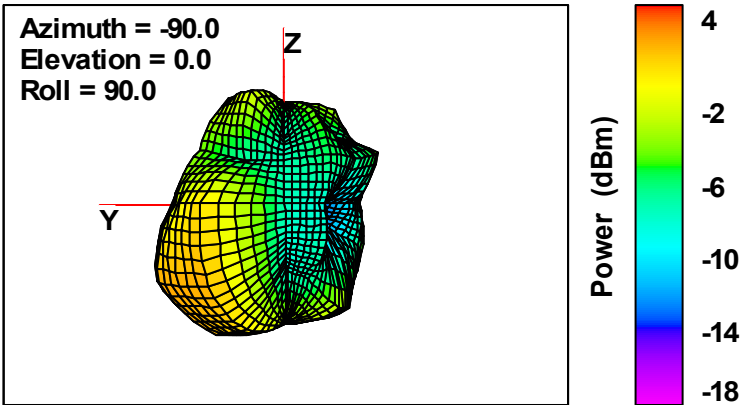
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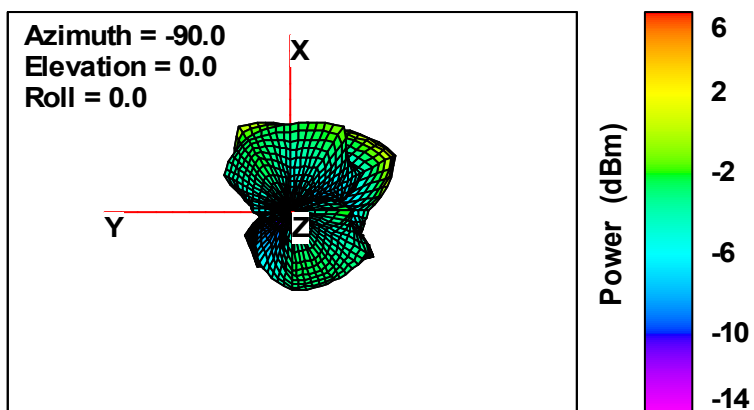


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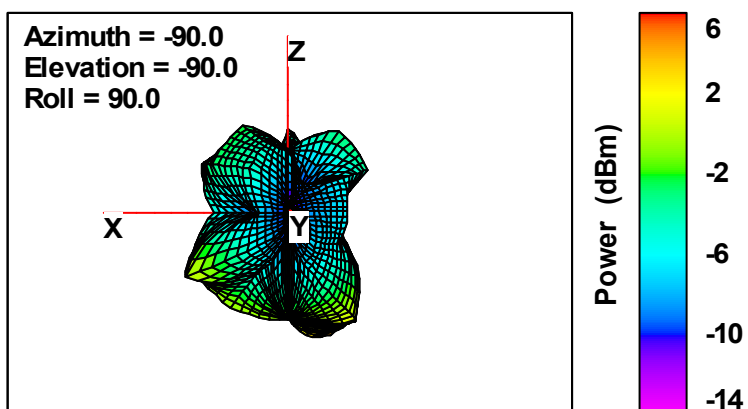


Wifi 5G Antenna

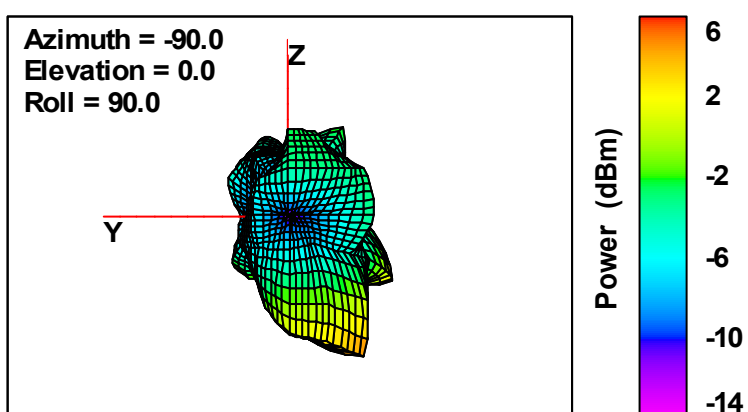
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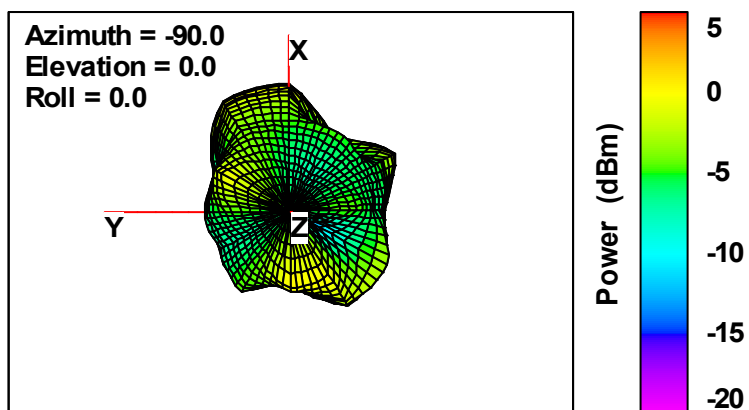


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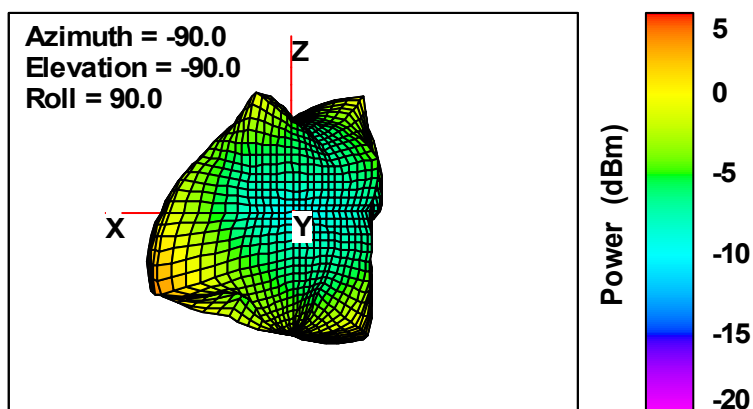


Wifi 6G Antenna

Total



Total



Total

