Antenna Specifications

Frequency range of operation:

Antenna 1:

- BLE: 2.4 to 2.48 GHz

Antenna type: PCB Antenna

Antenna gain:

Frequency(MHz)	Peak Gain(dBi)
2402	**4.3**
2440	**4.4**
2480	**4.8**

Testing engineer: wenlong.yao

Testing date: 2026.05.20

Lab name: Goertek WF antenna lab

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

Measurement test method:

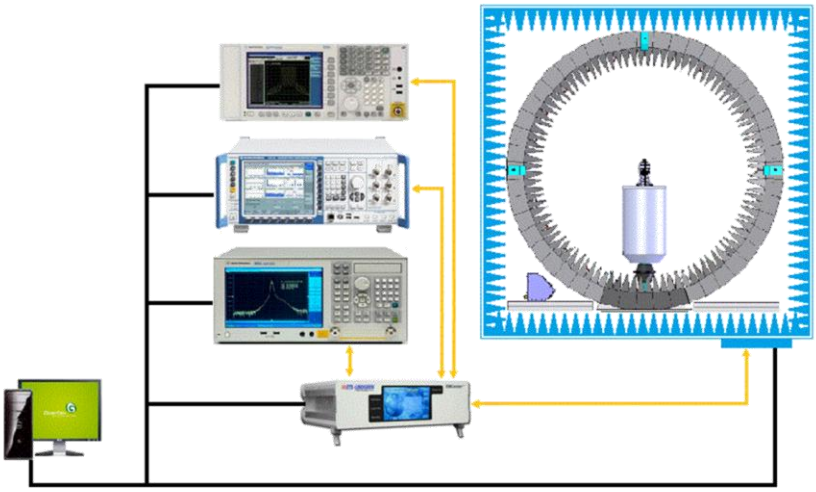
Solder pigtails on feeding point of antenna and measure passive antenna performance by VNA and OTA chamber system.

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
CMW500	ROHDE&SCHWARZ	1201.0002K50	M-WI-0118	Jan 2026	1 year
MAX signal analyzer	Keysight	N9020A	MY55338109	Jan 2026	1 year
EMCCenter	ETS	2090	SN0012547	Jan 2026	1 year

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 pigtails to the RF cable.

Software used: EMQUEST Version1.10

Test Standard: CTIA Test Plan

Test set-up:
Test Procedure (Passive Antenna Measurement):

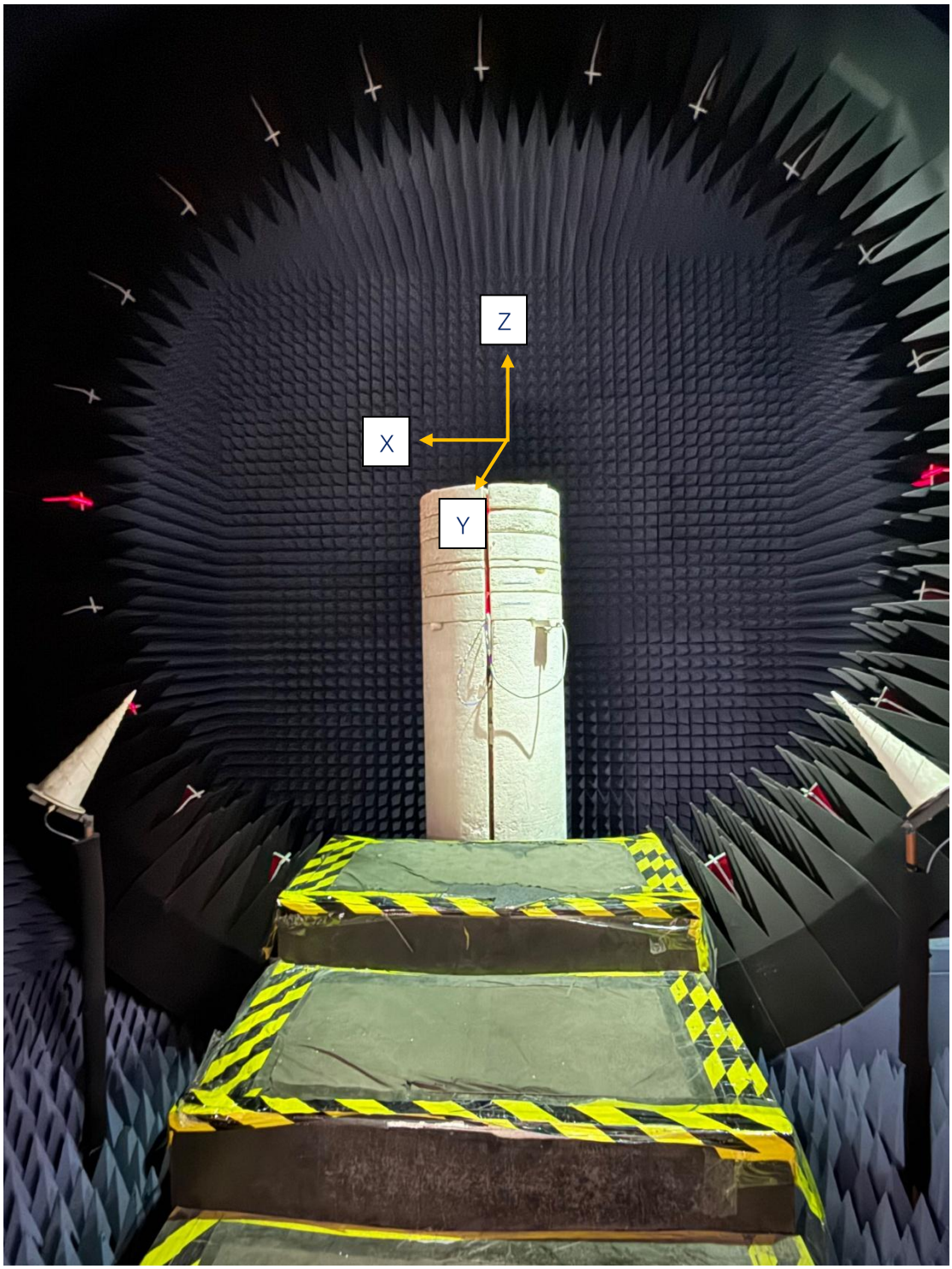
1.Mount the Device Under Test (DUT) on the supporting pole at the center of the anechoic chamber.

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.

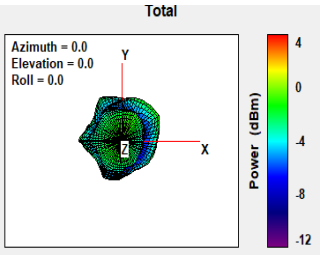
4.Launch the antenna measurement system, configure the required test parameters (e.g., frequency points or rotation angles), and import the frequency list for testing.

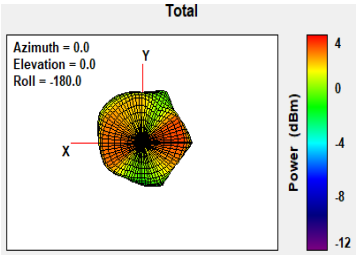
5.After completing the measurement, process the recorded data and perform far-field data conversion as required.
Antenna radiated pattern orientation:

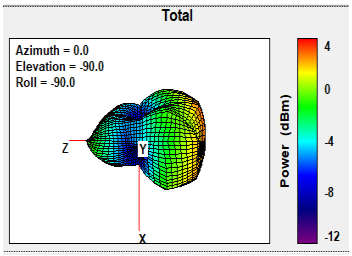


Antenna radiation pattern:

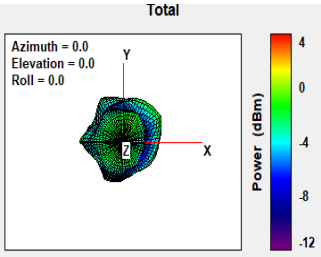
2402MHz

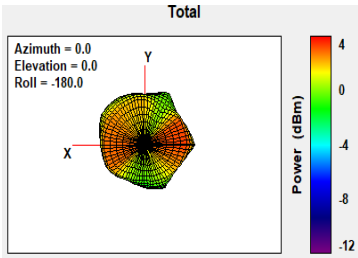


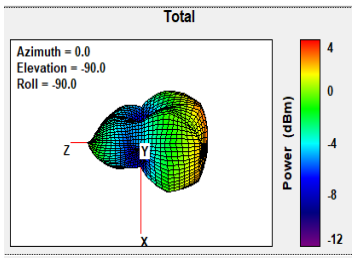
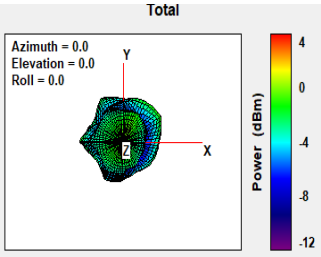
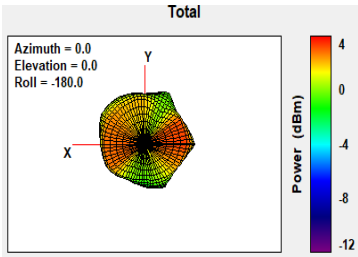
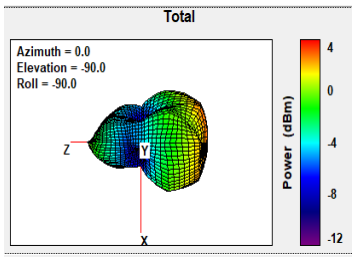




2440MHz







2480MHz