

Product Specification Acknowledgment

Antenna Laboratory

Shenzhen R&D Center

Mobile communication terminal antenna

Customer Name: Room 1305, Building N2, Alibaba Building
No.3331, Keyuan Road, Weilan Coast Community, Yuehai Subdistrict
Nanshan District, Shenzhen, Guangdong

Product Name: Automatic Litter Box

Material Code: D210-0012-0001

Manufacturer			date: 2026.4.27
RF Engineer	Structural Engineer	Review	Quality
Yueyue Chen	Weiping Luo	Haiping Liu	Qingzhou Luo

Client side		date:
Conclusion	Confirmer	Reviewer

Address: Room 410, Maker Mansion, No.1018 Chaguang Road, Xili Community, Xili Subdistrict, Nanshan District, Shenzhen City, Guangdong Province, P.R.Chin

1. Purpose

Standardize the specifications and testing methods for mobile communication terminal antennas produced by Company Name: Shenzhen Zhigao IoT Technology Co., Ltd. to avoid errors caused by differences in testing conditions and methods.

2. Overview of Product Categories and Product Models

2.1 Category

The WIFI antenna type for this communication terminal is: single-stage antenna.

2.2 Product Model Overview

This report primarily outlines the electrical performance of the antenna designed for the Automatic Litter Box project.

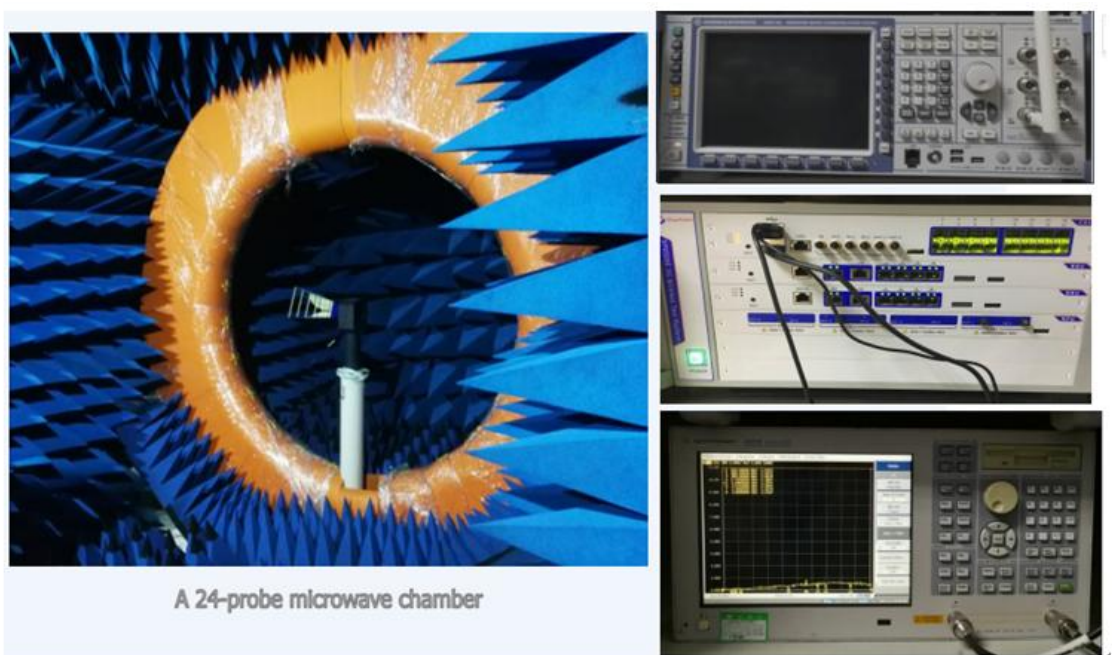
The operating frequency range of this antenna is 2400MHz-2500 MHz.

3. Technical Specifications and Instrumentation

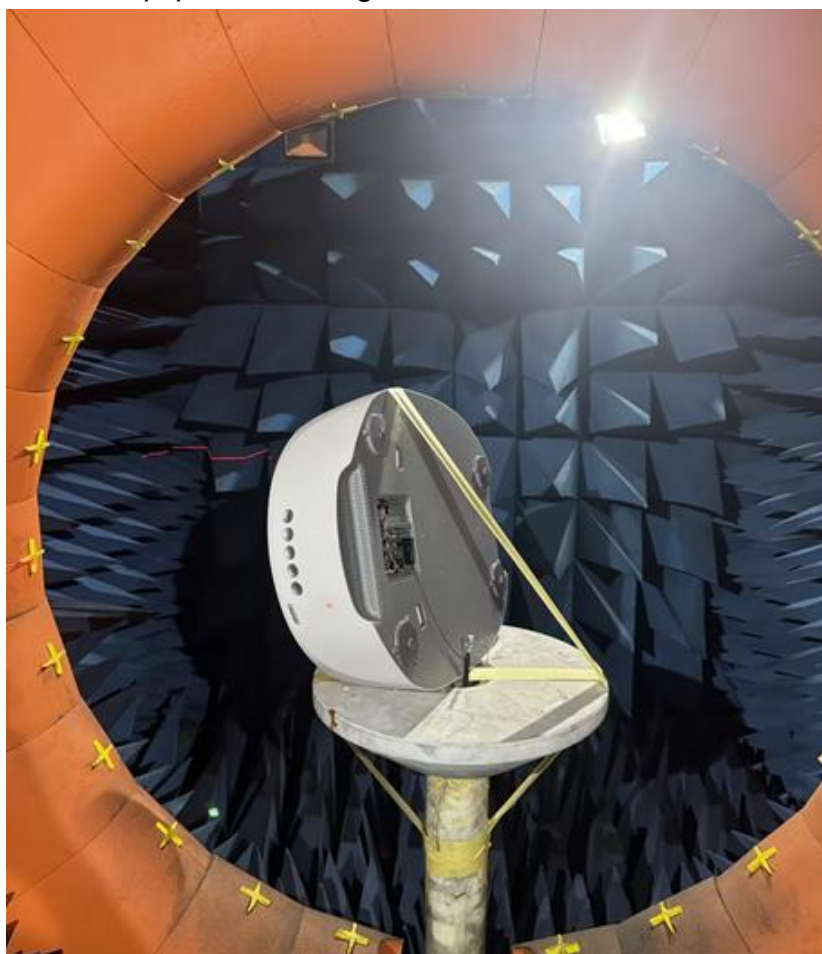
3.1 Technical Specifications

Product Electrical Performance Specifications	
Operating Frequency Range	2400~ 2500MHz
Antenna Gain	2400MHZ (4.28dbi)~ 2500MHZ(3.92dbi)
Maximum Radiation Gain	4.53dBi
Radiation Efficiency	46%-52%
Impedance	50 Ω
Product Environmental Specifications	
Operating Temperature	- 30°C ~ + 85 °C
Storage Temperature	- 30°C ~ + 85 °C
Note: Please refer to the actual test results when the product is installed.	

3.2 Instruments and Equipment

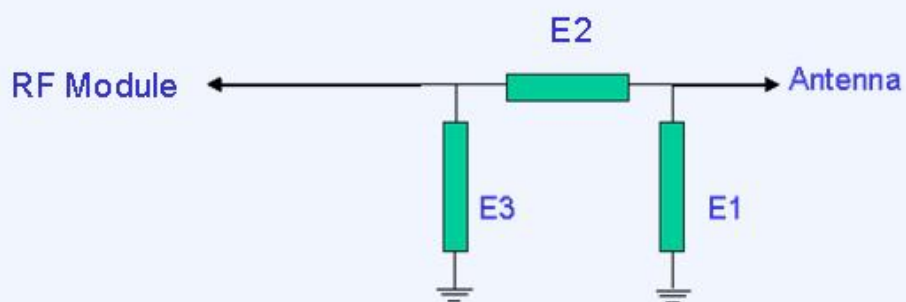


3.3 Instrumentation and Equipment Testing Environment



4. Matching circuit description

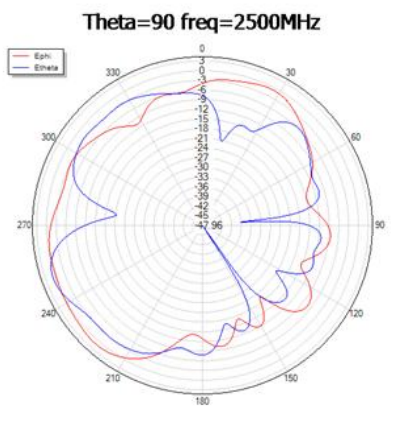
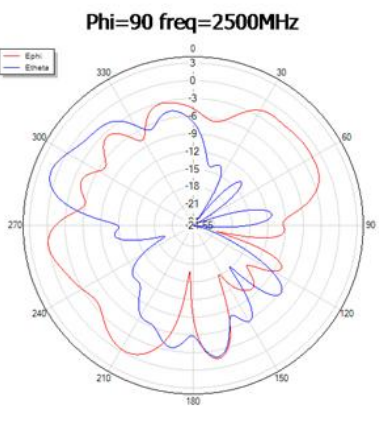
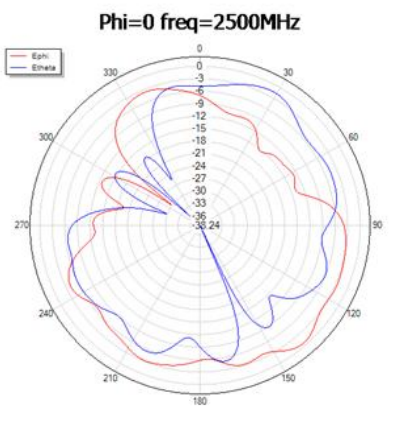
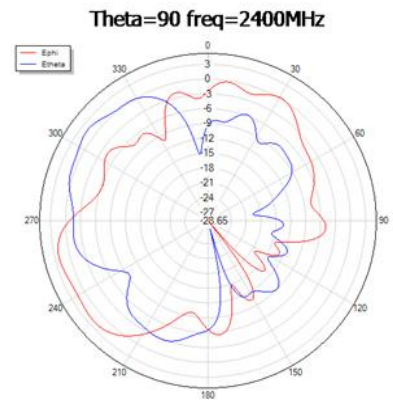
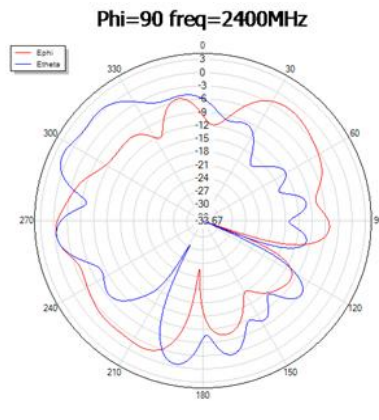
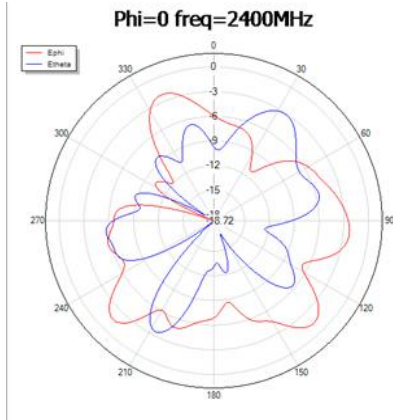
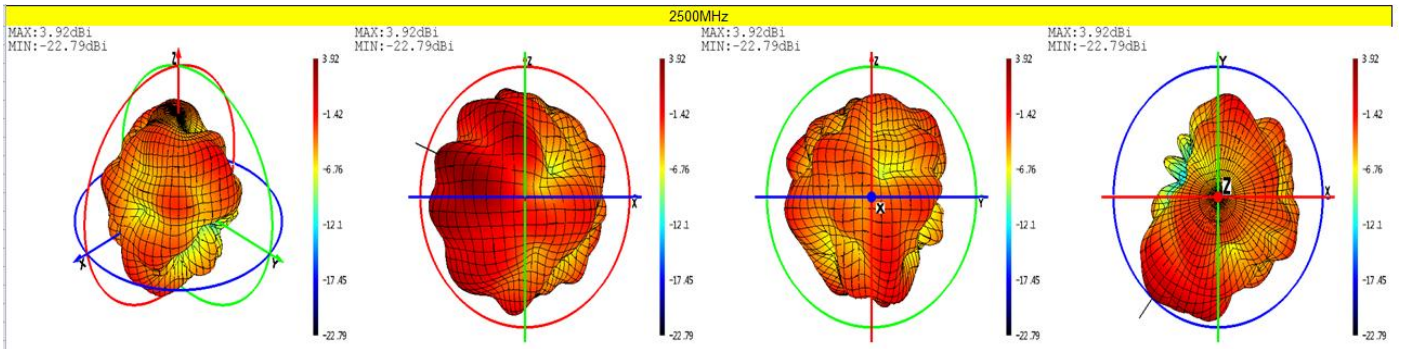
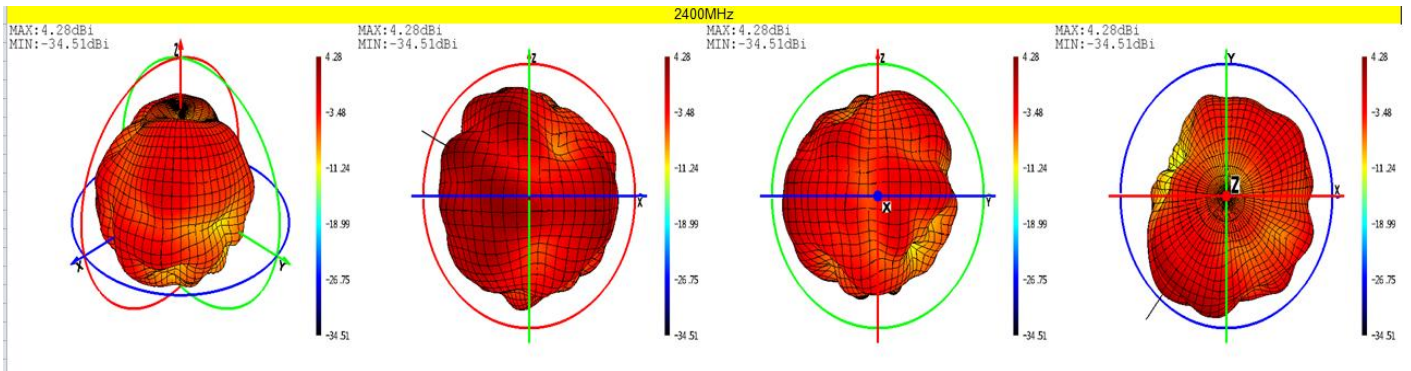
主板原匹配未变更



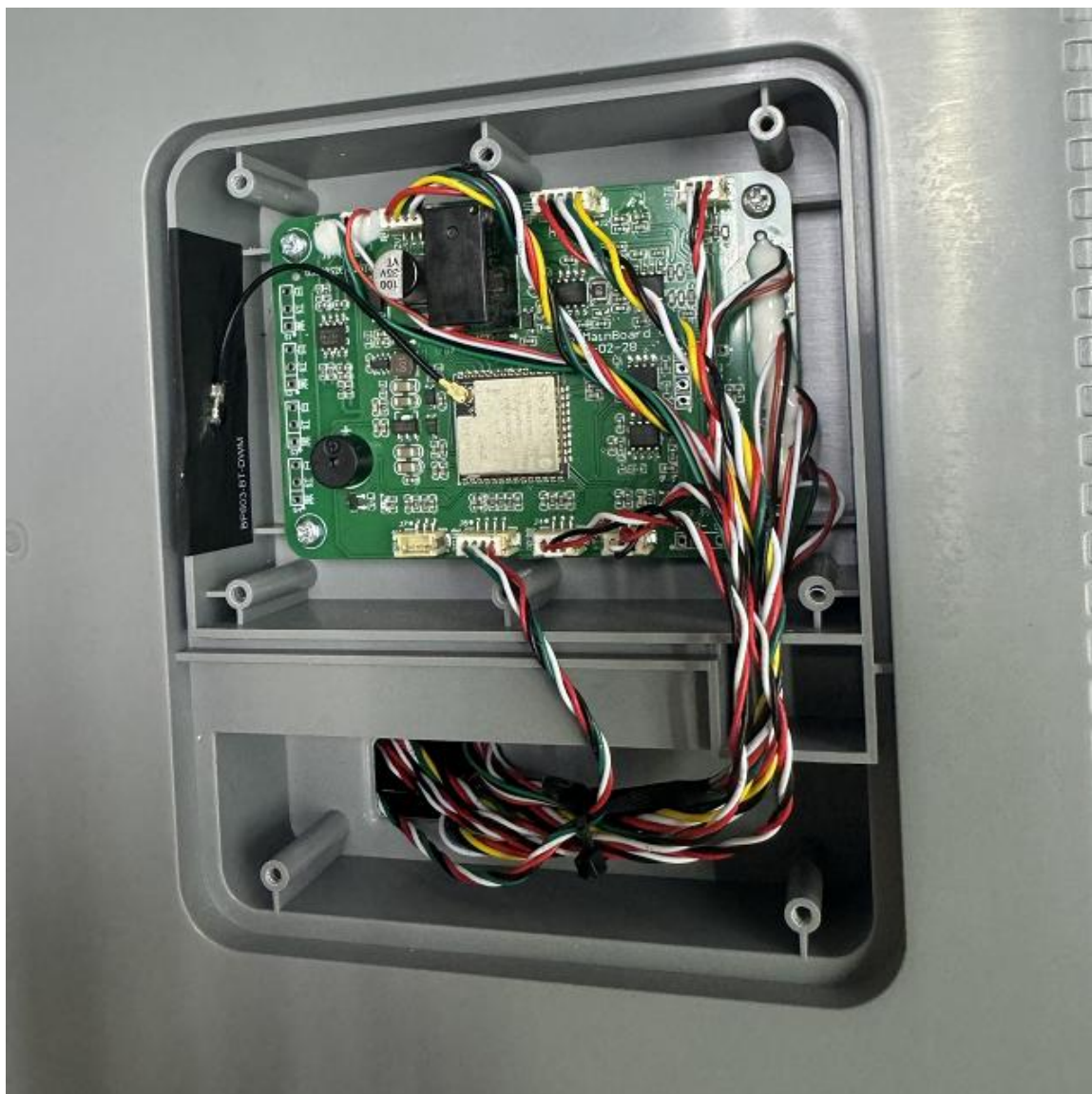
5. Antenna Electrical Performance Parameters (Gain, Efficiency)

Antenna Test Data Provided by Our Company			
(Gain, efficiency)		Frequency 频率(MHz)	Gain 增益(dBi)
		Efficiency 效率(%)	
		2400.00	4.28
		2405.00	4.53
		2410.00	4.38
		2415.00	4.32
		2420.00	4.17
		2425.00	4.03
		2430.00	3.97
		2435.00	3.93
		2440.00	3.94
		2445.00	3.87
		2450.00	3.79
		2455.00	3.73
		2460.00	3.65
		2465.00	3.63
		2470.00	3.61
		2475.00	3.70
		2480.00	3.87
		2485.00	3.97
		2490.00	3.94
		2495.00	3.93
		2500.00	3.92

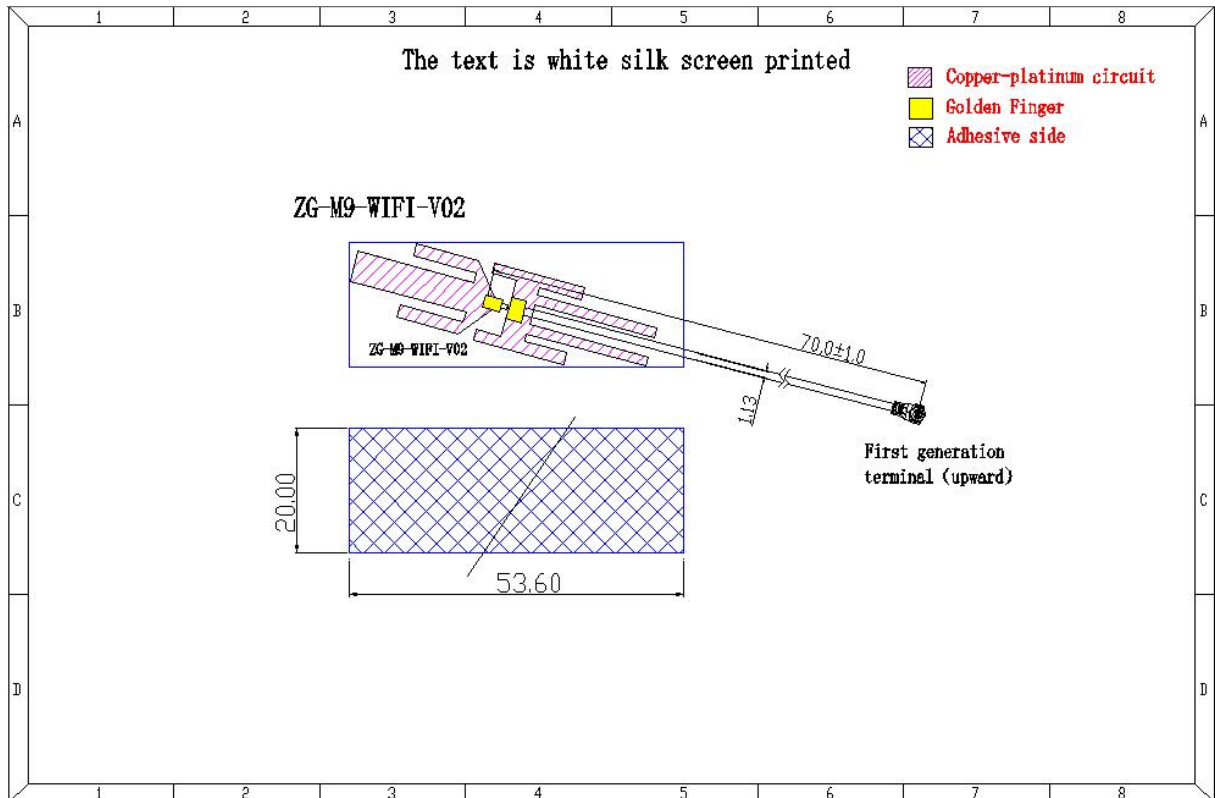
5.1. Antenna Passive 3D_Graphs/PolarGraphs:



6. Antenna Location Area:



7. Product structural diagram:



8. Packaging method

Packed in bags, 100 pcs/bag