



SHENZHEN YINGJIACHUANG TECHNOLOGY ELECTRONIC CO., LTD.

<http://www.szsyjc.com>

APPROVAL SHEET

承认书

| | | |
|-------------------|---------------------------------|-------------|
| CUSTOMER NAME | poor handwriting | |
| CUSTOMER P/N | | |
| PART NAME | 2.4G black FPC built-in antenna | |
| P/ N | YJC-6N050-B128 | |
| APPROVAL REV. | A0 | |
| DELIVERY DATE | April 11, 2025 | |
| PREPARED BY | Huang Teng | |
| CHECKED BY | Peng Huang | |
| APPROVED BY | (Xiao Han) | |
| Customer Approved | | |
| Prepared By | Checked By | Approved By |
| | | |

(Company address: building C, guangming valley, hongyu guangming valley, no. 11, jiangyou magang, shiwei community, matantian office, guangming district, shenzhen)

(Dongguan Branch: No.2 Xinja Industrial Park, No.3, Yinhe Road, Qiaotou Town, Dongguan City)

(Hangzhou Office: Room 509, Building 1, Binrun Science and Technology Innovation Park, No.5, Ren Street, Puyan Street, Binjiang District, Hangzhou)

(Mianyang Office: No.4F-34, Wanxiang High-tech International, No.35, Mianxing East Road, High-tech Zone, Mianyang City, Sichuan Province)

Phone + 86-0755-27810060/23192199; Fax: 0755-27810057

Company website: <http://szsyjc.com> E-mail: yjc@szsyjc.com



Directory

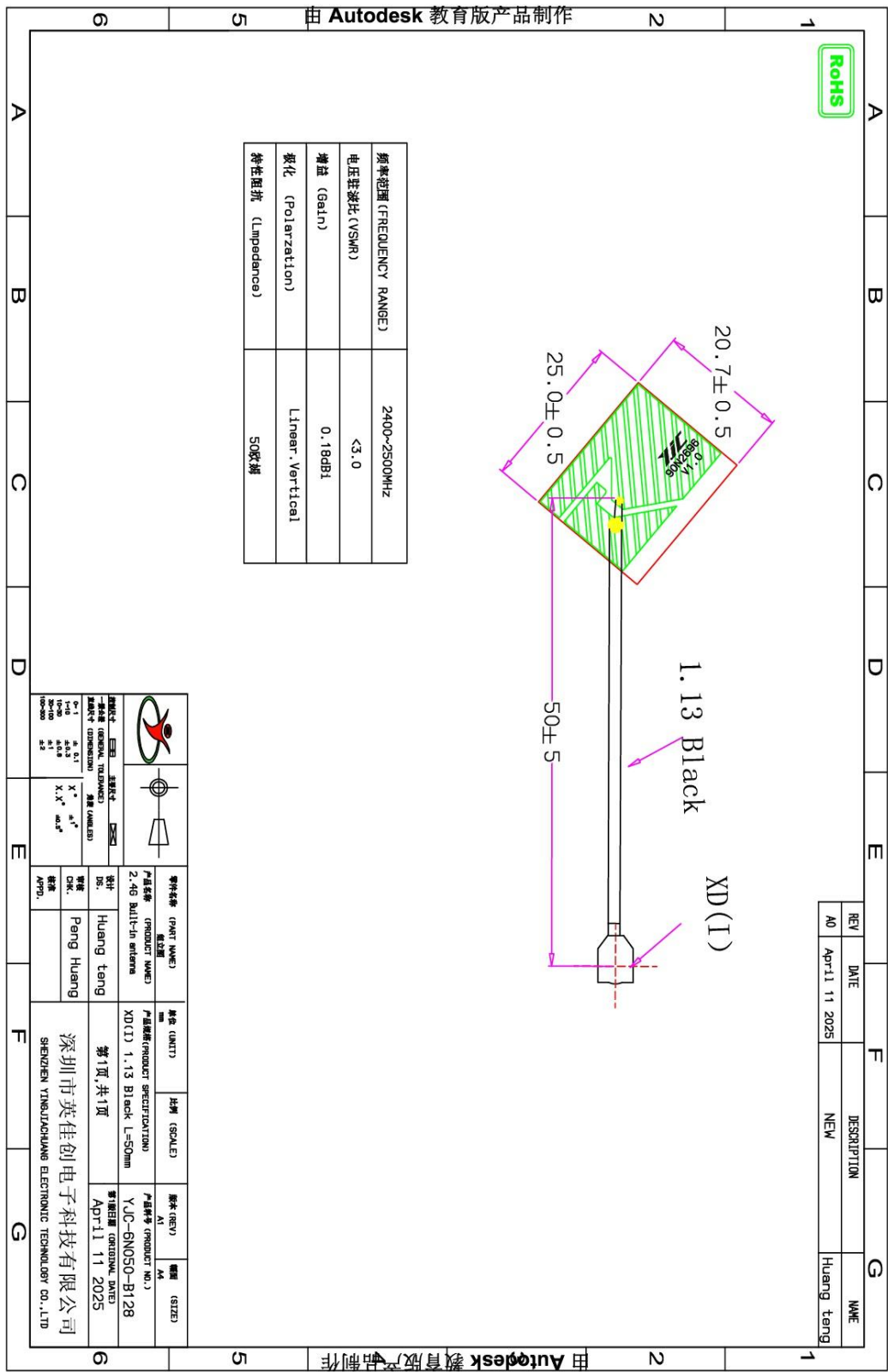
| | | |
|----|--|-----|
| 1、 | The cover····· | 1 |
| 2、 | Directory····· | 2 |
| 3、 | Revised resume····· | 3 |
| 4、 | The antenna's floor plan····· | 4 |
| 5、 | Instrumentation····· | 5 |
| 6、 | Antenna technical parameters and environmental test····· | 6 |
| 7、 | Location diagram of the antenna attachment····· | 6 |
| 8、 | OTA active test data····· | 7 |
| 9、 | 2D\3D test data····· | 7-8 |



Revised resume:

| version | Change contents and reasons | date | Sell wholesale |
|---------|-----------------------------|----------------|----------------|
| A0 | NEW | April 11, 2025 | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

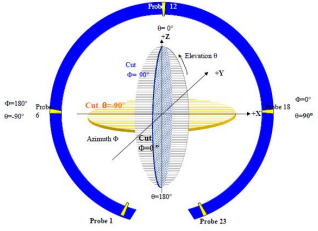


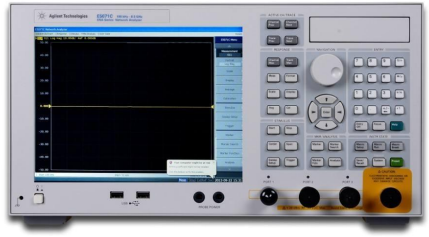
Antenna plan:



Instrumentation:

| | Test items | Test equipment |
|--------------|---|---|
| S Parameter | 1. Return Loss 2.VSWR | Network analyzer (Agilent E5071B) (Calibration date:November21,2024-November 20,2025) |
| Passive test | 1. Frequency 2. Gain 3. Radiation Pattern | 1.3Dmicrowave darkroom (5m*4m*4m) 2.Network analyzer (Agilent E5071B) (Calibration date:December18,2024-December 17,2025) |
| Active test | 1. TRP 2. TIS | 1.3Dmicrowave darkroom (5m*4m*4m) 2.Comprehensive test instrument (CMW500) (Calibration date: December16,2024-December 15,2025) |

Passive is to collect DUT spherical near-field data through multi-probe, and then the direction map of DUT is calculated by the near-far-field conversion formula. Finally, the gain and efficiency are calculated by the directionality coefficient on the direction map

| Dark room coordinates | test mode |
|---|--|
|  |  |
| CMW500 | Agilent E5071B |
|  |  |

Antenna technical parameters and environmental test:

| Electrical technical parameters | | | |
|---------------------------------|-----------------|---------------------------|-----------|
| Electrical Specifications | | Mechanical Specifications | |
| Frequency Range | 2400-2500MHz | Antenna Color | Black |
| VSWR | <3.0 | Working Temperature | -20℃~+70℃ |
| Input Impedance | 50 Ω | Working Humidity | 20%~80% |
| Direction | Omnidirectional | Gain | 0.18dBi |
| Interface form | XD-1 | Antenna type | dipole |

Location diagram of the antenna attachment:



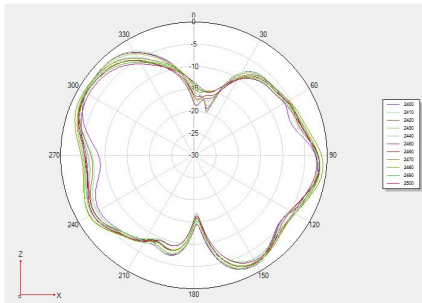
OTA active test data:

| Item | Measurement | Standard | Band | Channel | Frequency | Total |
|------|-------------|-----------|--------------|---------|-----------|--------|
| 1 | TRP | WIFI (AP) | WIFI_B (11M) | 1 | 2412 | 14.92 |
| 2 | TRP | WIFI (AP) | WIFI_B (11M) | 6 | 2437 | 15.37 |
| 3 | TRP | WIFI (AP) | WIFI_B (11M) | 11 | 2462 | 14.93 |
| 4 | TIS(EIRP) | WIFI (AP) | WIFI_B (11M) | 1 | 2412 | -82.31 |
| 5 | TIS(EIRP) | WIFI (AP) | WIFI_B (11M) | 6 | 2437 | -85.4 |
| 6 | TIS(EIRP) | WIFI (AP) | WIFI_B (11M) | 11 | 2462 | -84.24 |

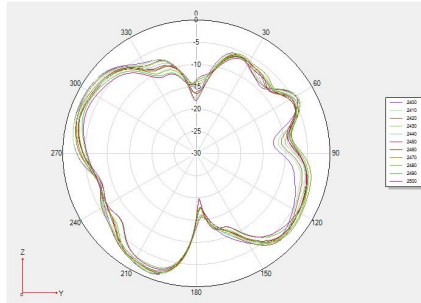
2D,3D test data:

| Frequency | Efficiency (%) | Gain. (dBi) |
|-----------|----------------|-------------|
| 2400MHz | 40.15 | 0.18 |
| 2410MHz | 41.02 | -0.07 |
| 2420MHz | 43.71 | 0.13 |
| 2430MHz | 44.67 | -0.33 |
| 2440MHz | 44.03 | 0.07 |
| 2450MHz | 43.50 | -0.59 |
| 2460MHz | 45.10 | -0.28 |
| 2470MHz | 44.34 | 0.18 |
| 2480MHz | 45.19 | -0.09 |
| 2490MHz | 43.60 | -0.28 |
| 2500MHz | 43.71 | -0.50 |

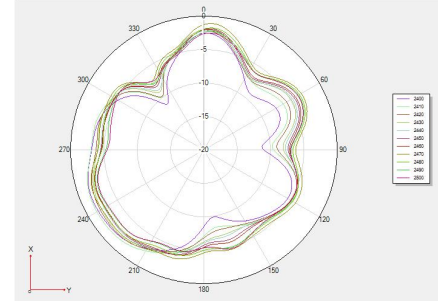
Phi 0 2D



Phi 90 2D

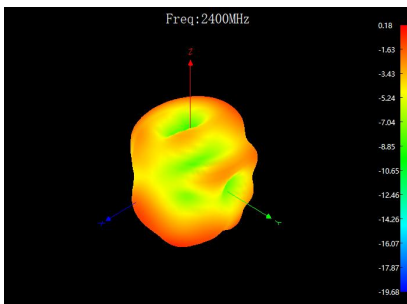


Theta 90 2D

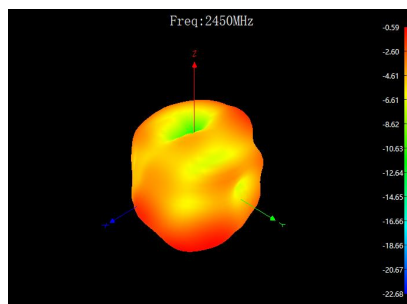


3D test data:

3D 2400MHz



3D 2450MHz



3D 2500MHz

