
SPECIFICATION FOR APPROVAL

Customer Name: wangyuan

Product Model: WYA00DG

Customer P/N :

XINHENGYANG P/N: TZX.01.0282-WYA00DG, ZJ.03.0282-WYA00DG

SPECIFICATIONS: 2.4G+5.8G

Production date: 2023.04.07

Sample Version: V1.0

| Number | Effective date | Change record |
|--------|----------------|-----------------|
| V1.0 | 2023.04.07 | Initial release |
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ONE、 The basic parameters

| A. Electrical Characteristics | |
|--|--|
| Frequency | 2400MHZ~2500MHZ 5150MHZ~5850MHZ |
| VSWR | < 2.2 |
| Avg Efficiency | >52% |
| Impedance | 50 ± 25 Ohm |
| Polarization | Linear |
| Peak Gain | 2.4G:2.75dBi 5.8G:4.85dBi |
| B. Material & Mechanical Characteristics | |
| Material of Radiator | FPC black |
| Cable Type | / |
| Connector Type | / |
| Dimension | / |
| C. Environmental | |
| Operation Temperature | - 20 °C ~ + 60 °C |
| Storage Temperature | - 30 °C ~ + 70 °C |

TWO、Electrical Specification

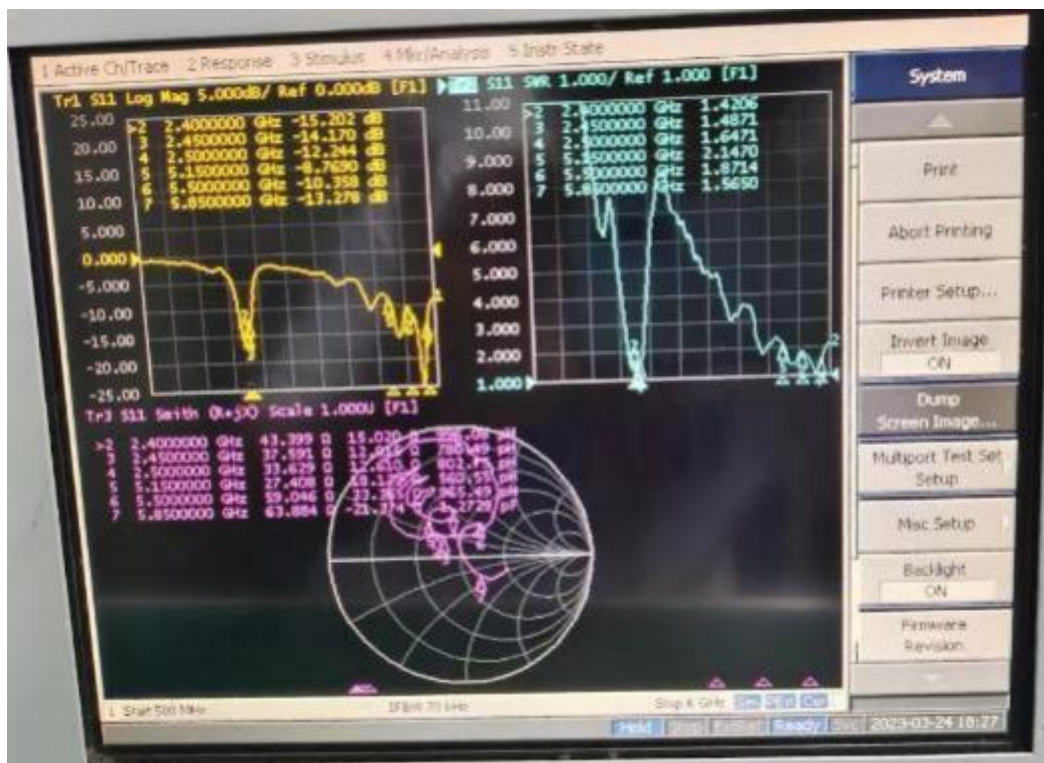
Those specifications were specially defined for 旺源 WYA00DG model.

three、VSWR

1 Measuring Method

- 1.A $50\ \Omega$ coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR
- 2.Keeping this jig away from metal at least 20cm

2 Measurement frequency points and VSWR value



four、 Anechoic chamber

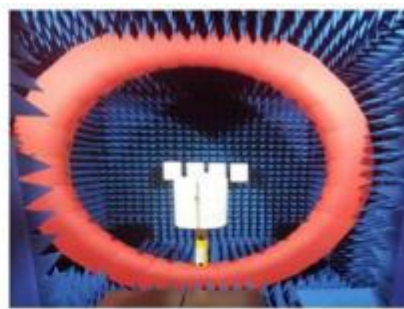
Introduction:

Microwave darkroom and no reflection chamber, absorbing short wave darkroom dark room. Microwave darkroom by electromagnetic shielding room, filtering and isolation, grounding device, the ventilation duct, indoor distribution system, monitoring system, ceiling wave material part. It is based on the wave absorbing material as the lining of the shield room, it can absorb the most of the electromagnetic energy into the six wall is a better simulation of the free space conditions.

The main working principle of microwave anechoic chamber is according to the electromagnetic wave in the medium from the low magnetic guide magnetic direction of propagation rules, absorbing materials to guide the electromagnetic wave using high permeability, through resonance, a substantial absorption of electromagnetic wave radiation energy, by coupling the electromagnetic energy into heat energy.

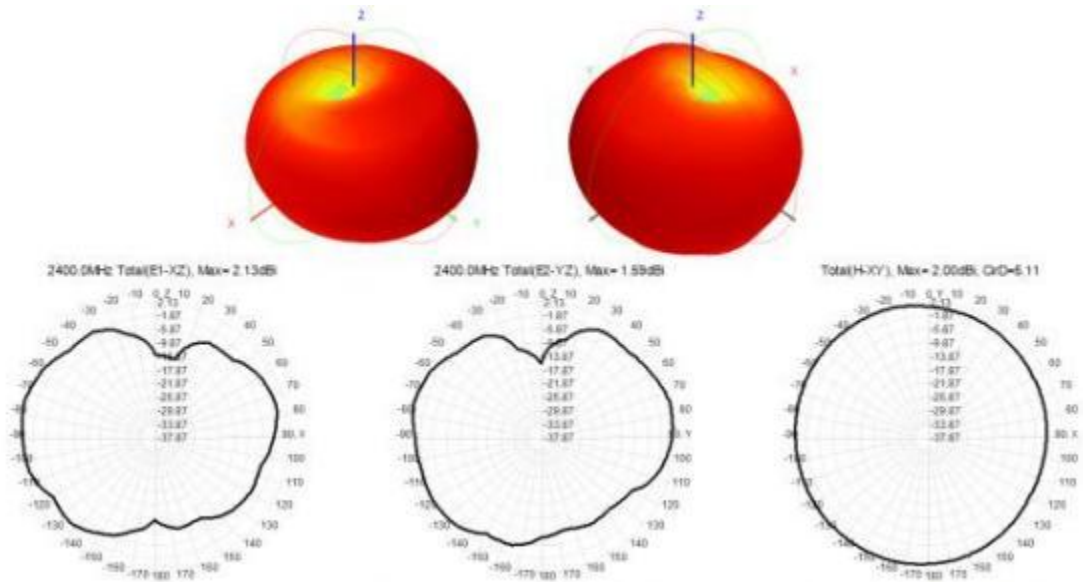
main performance :

Frequency range:400MHz ~ 6GHz ceiling reflected wave loss materials: 400MHz ~ 6 GHz is equal to or more than 15dB (microwave absorbing material by composite wave absorbing materials, namely tapered containing carbon sponge suction wave material paste in ferrite)

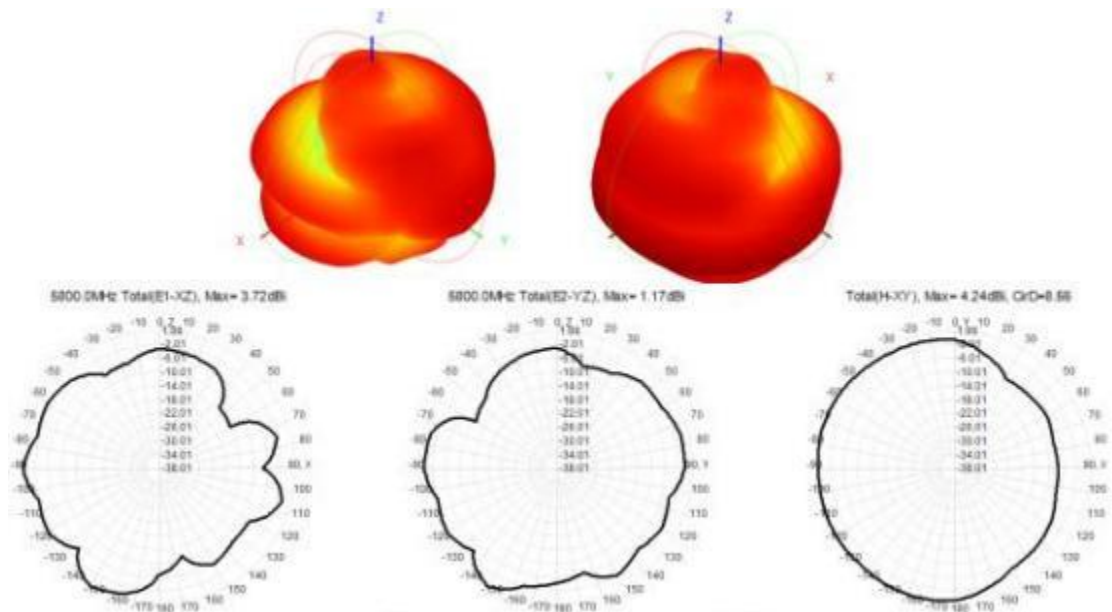


five、Gain table of Antenna

2. 4G



5. 8G



Passive efficiency gain

| Freq (MHz) | Effi (%) | Gain (dBi) | Freq (MHz) | Effi (%) | Gain (dBi) |
|-----------------------|-----------------|-------------------|-----------------------|-----------------|-------------------|
| 2400 | 59.13 | 2.13 | 5200 | 59.02 | 2.72 |
| 2410 | 64.86 | 2.58 | 5250 | 79.45 | 3.69 |
| 2420 | 68.87 | 2.67 | 5300 | 74.51 | 4.85 |
| 2430 | 73.17 | 2.75 | 5350 | 64.75 | 3.61 |
| 2440 | 73.54 | 2.53 | 5400 | 72.43 | 3.83 |
| 2450 | 74.99 | 2.50 | 5450 | 75.20 | 4.01 |
| 2460 | 73.49 | 2.47 | 5500 | 63.34 | 3.41 |
| 2470 | 75.44 | 2.52 | 5550 | 72.08 | 4.67 |
| 2480 | 74.07 | 2.42 | 5600 | 79.48 | 4.43 |
| 2490 | 73.17 | 2.43 | 5650 | 77.23 | 3.18 |
| 2500 | 69.26 | 2.23 | 5700 | 71.28 | 3.31 |
| 5100 | 54.67 | 1.99 | 5750 | 77.20 | 4.63 |
| 5150 | 53.43 | 2.06 | 5800 | 76.70 | 3.72 |

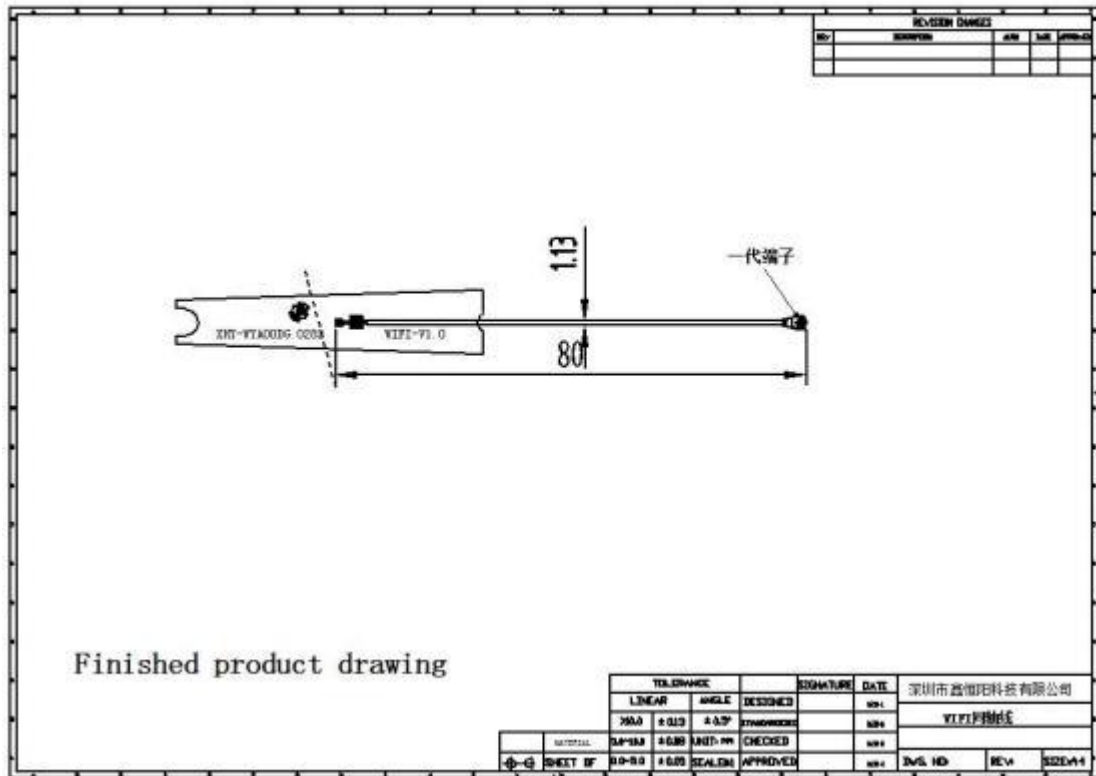
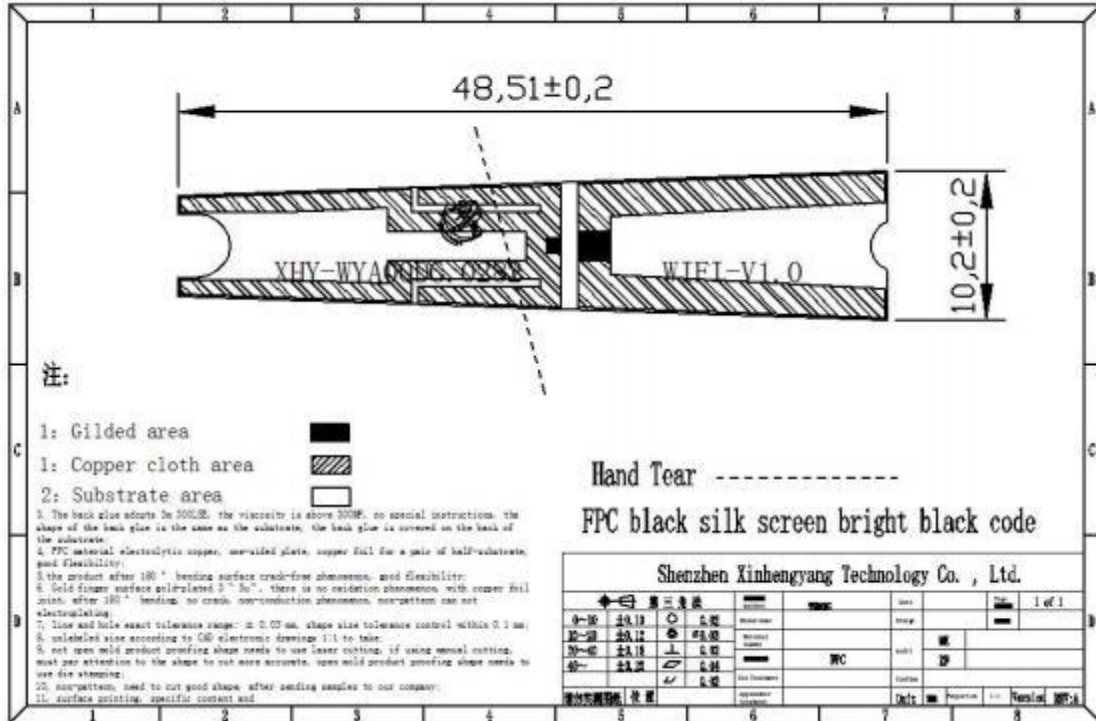
Six Machine Picture

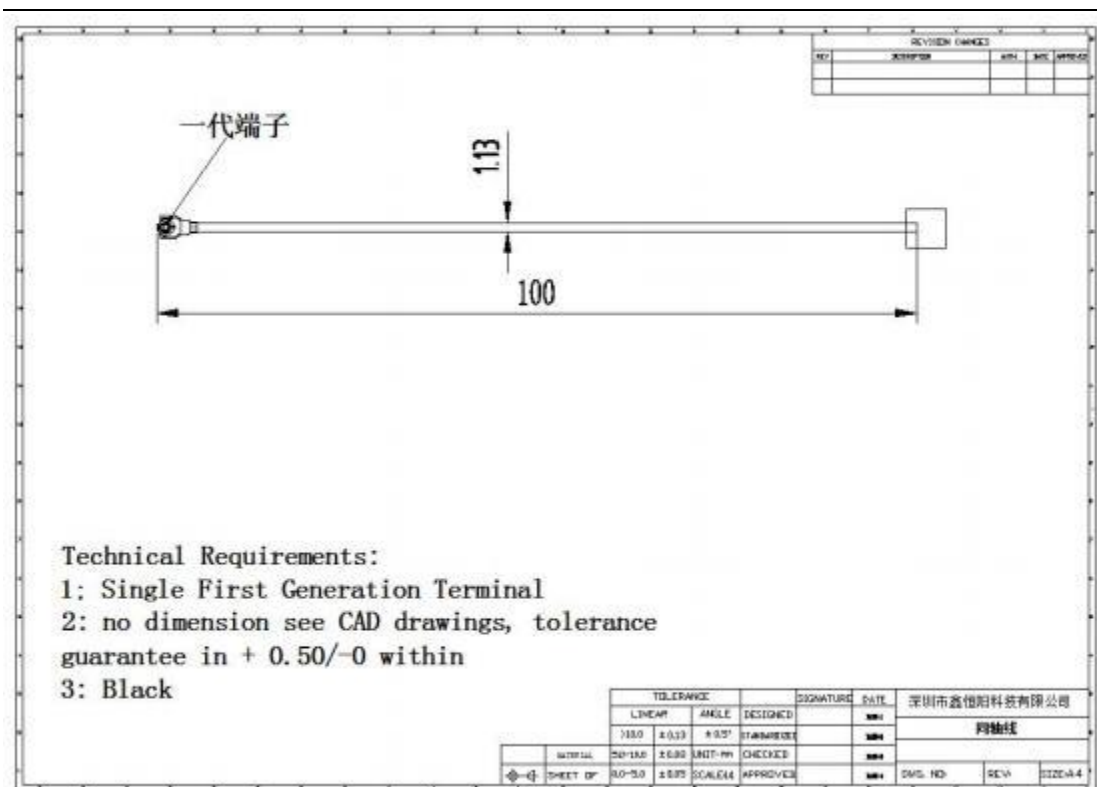


seven、 Antenna



eight、Antenna Dimensions





Technical Requirements:

- 1: Single First Generation Terminal
- 2: no dimension see CAD drawings, tolerance guarantee in $+ 0.50/-0$ within
- 3: Black

| TOLERANCE | | | | SIGNATURE | DATE | 深圳市鑫恒阳科技有限公司 | | |
|------------|-----------------|----------|------------|-----------|----------|--------------|------|---------|
| LINEAR | ANGLE | DESIGNED | | | | 网络线 | | |
| ± 0.13 | $\pm 0.5^\circ$ | DRAWN | | | | | | |
| DWG-180 | ± 0.02 | UNIT-PM | CHECKED | | | DWG. NO. | REV. | SIZE:A4 |
| ◆-◆ | SHEET 01 | 3.0-3.0 | ± 0.05 | SCALE:1:1 | APPROVED | | | |

nine、 ROHS

Antenna TZX.01.0282-WYA00DG , ZJ.03.0282-WYA00DG meets
RoHS requirements.

Ten、 Product packaging instructions

A. packing should meet the moistureproof, vibration, pressure and
mildew proof, etc.

B. the smallest packing unit logo must have the manufacturer
trademarks, product model, name, code and quantity.

C. in the attached packing list, certificate of approval, and the factory
inspection report.

*****END*****