# Antenna Approval Sheet

## For
## B60 Project

| | | | |
|---|---|---|---|
| Customer | HUAXINZHIYING | Project | B60 |
| Band | WiFi 2.4GHZ/5GHZ | | |
| ZC PN | YC016-CA-93 | | |
| Version | R:A | Data | 2024-9-19 |

| | | | |
|---|---|---|---|
| RF | | ME | |
| Checked By | | | |
| Confirmed By | | | |
| Cust Confirm | | | |

## 1.Manufacturer information

Company name: Shenzhen Zhongcheng communication products Co., Ltd

Address: 5th floor, building C, Huafeng Industrial Zone, Liuxian Road, 71 District, Bao'an, Shenzhen

## 2. Summary of the DUT

B60 **Picture**

**Antenna Picture**

## 3. Electrical Specification:

| | |
|---|---|
| Antenna types | Built-in WIFI Antenna |
| Frequency | 2400-2500 MHz,5150-5350MHZ, 5725-5850MHz |
| Impedance | 50 Ω |
| VSWR | < 2.0 |
| Gain | 2.4GHZ 1.73dbi, 5.1GHZ 4.31dbi, 5.8GHZ 4.45dbi |
| Antenna Material | FPCB+Coaxial Cable |
| Connector Type | 1.13 MHF-1-Plug |

## 4. Test Condition

| 4.1 | TEST ITEM | TESTING INSTRUMENT | REMARKS |
|---|---|---|---|
| PASSIVE TEST | 1.Radiation Pattern<br>2.Antenna Gain<br>3. Return Loss<br>4. S.W.R | 1.Satimo SG24(3D)<br>2. Agilent 8960 E5515C<br>3. R&S ZVL6 | |

### 4.2Antenna installation diagram:

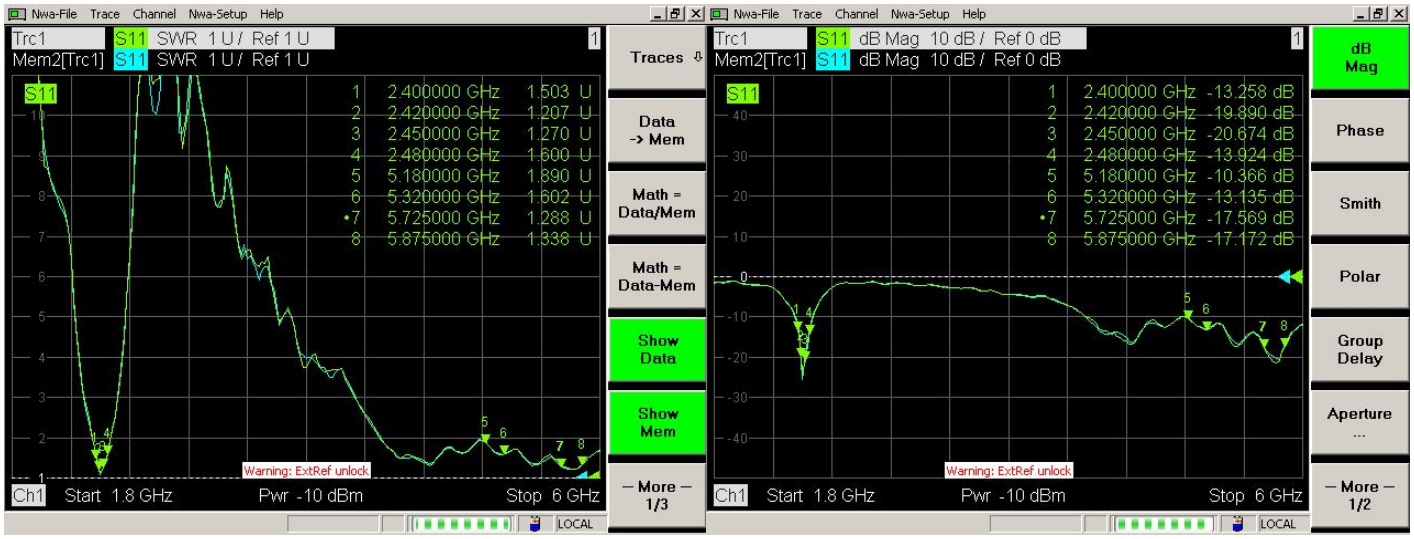
## 5. RF Performance

### 5.1 Passive parameters

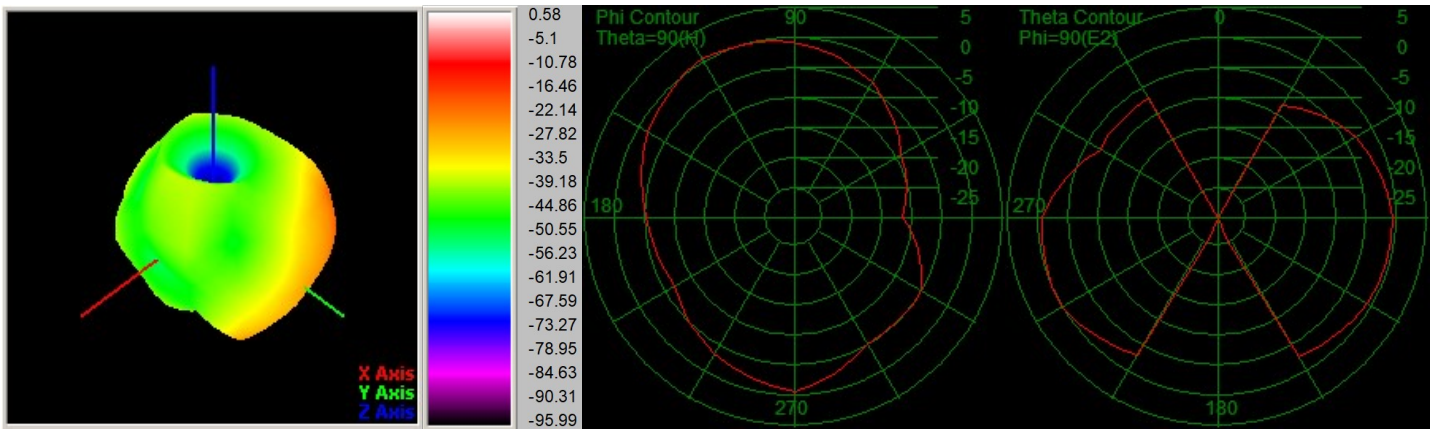
| Freq. (MHz) | 2400 | 2410 | 2420 | 2430 | 2440 | 2450 | 2460 | 2470 | 2480 | 2490 | 2500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gain (dBi) | 0.58 | 0.66 | 1.1 | 1.02 | 1.17 | 1.59 | 0.72 | 0.08 | 0.72 | 1.19 | 1.73 |
| Freq. (MHz) | 5150 | 5170 | 5190 | 5210 | 5230 | 5250 | 5270 | 5290 | 5310 | 5330 | 5350 |
| Gain (dBi) | 3.13 | 3.45 | 3.56 | 4.11 | 4.31 | 4.21 | 4.1 | 3.82 | 3.28 | 3.19 | 3.04 |
| Freq. (MHz) | 5720 | 5740 | 5760 | 5780 | 5800 | 5820 | 5840 | 5860 | 5880 | | |
| Gain (dBi) | 2.51 | 4.45 | 3.32 | 4.18 | 2.54 | 4.01 | 1.41 | 2.47 | 1.09 | | |

### 5.2 S Parameter

| Frequency (MHz) | 2400 | 2450 | 2480 | 5725 | 5875 |
|---|---|---|---|---|---|
| Return Loss(dB) | -20.58 | -22.74 | -15.39 | -17.56 | -17.17 |
| VSWR | 1.63 | 1.28 | 1.81 | 1.28 | 1.33 |

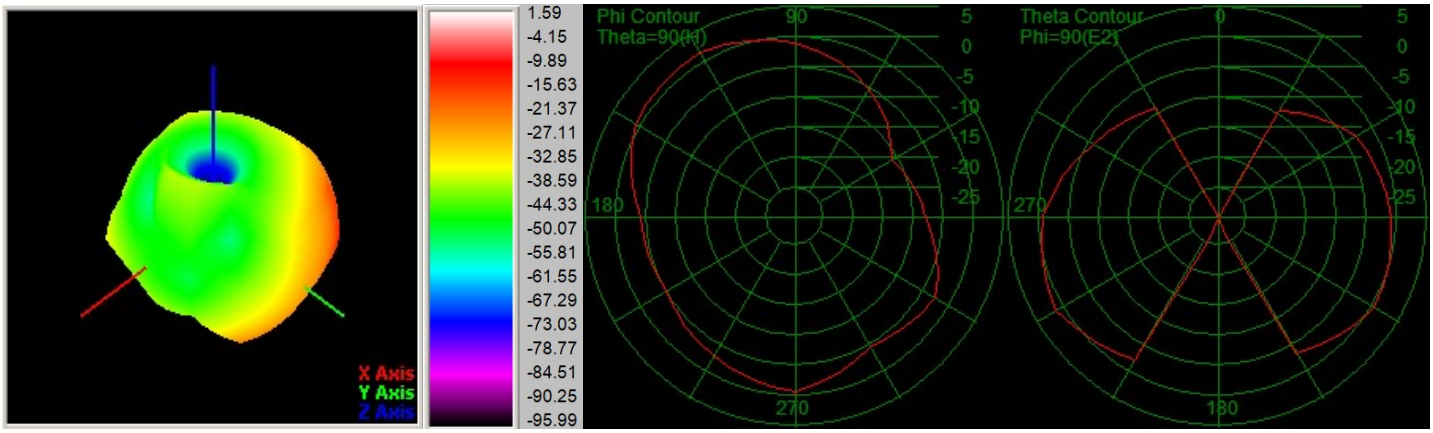


## 5.3 Radiation



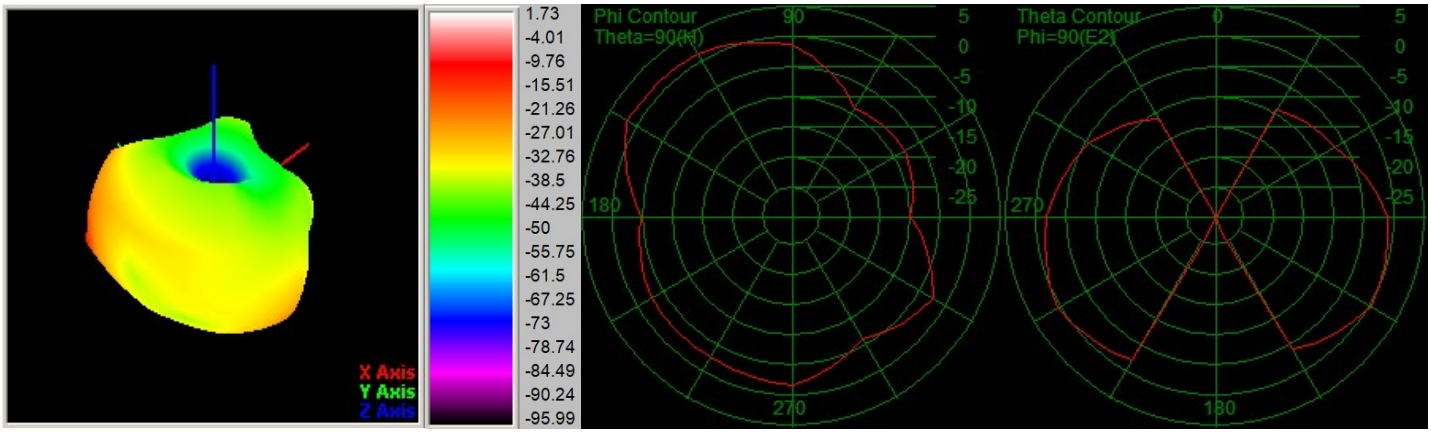

Passive -Freq2400.00MHZ

**Gain:0.58(dBi)**



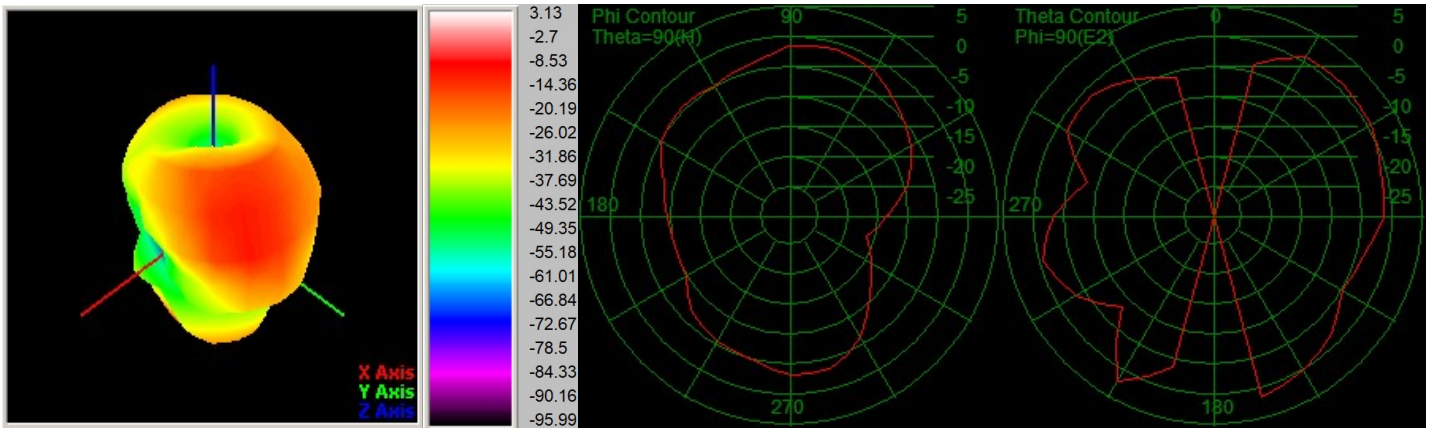

Passive -Freq2450.00MHZ

**Gain: 1.59(dBi)**

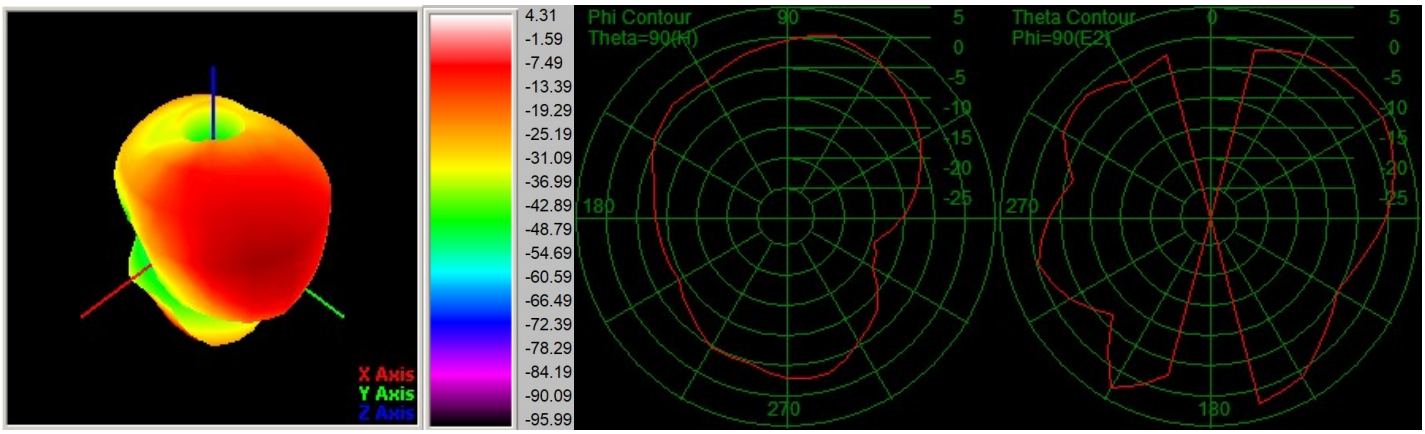



Passive -Freq2500.00MHZ

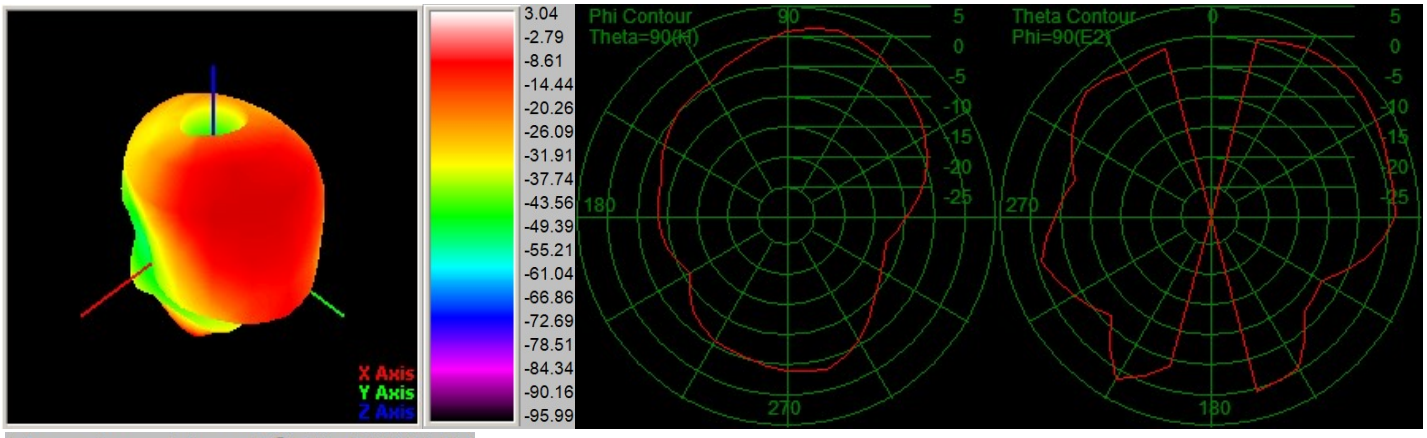
**Gain: 1.73(dBi)**



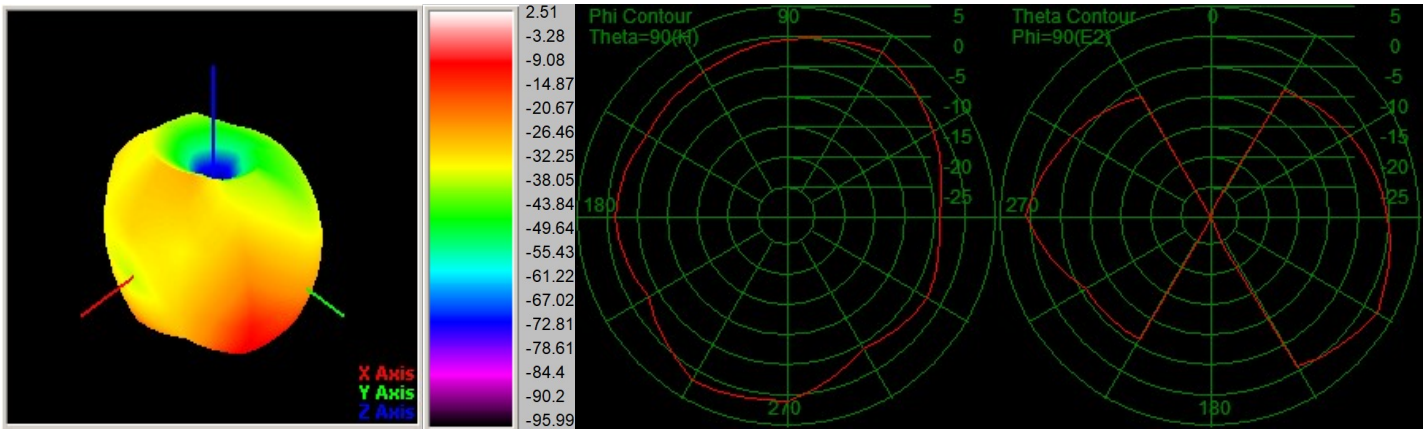

Passive -Freq5150.00MHZ **Gain: 3.13(dBi)**




Passive -Freq5230.00MHZ **Gain: 4.31(dBi)**

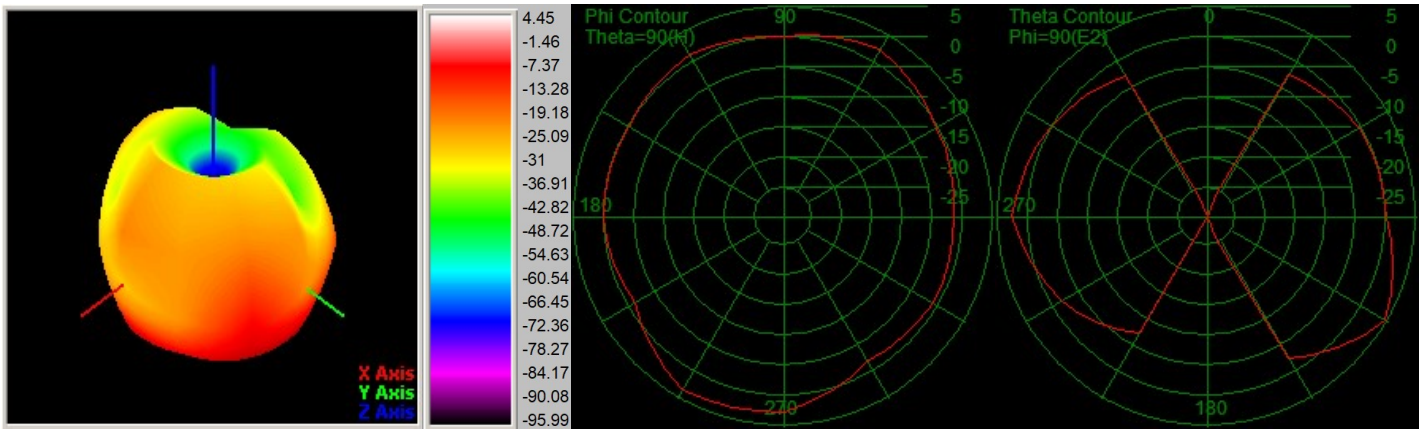



Passive -Freq5350.00MHZ **Gain: 3.04(dBi)**



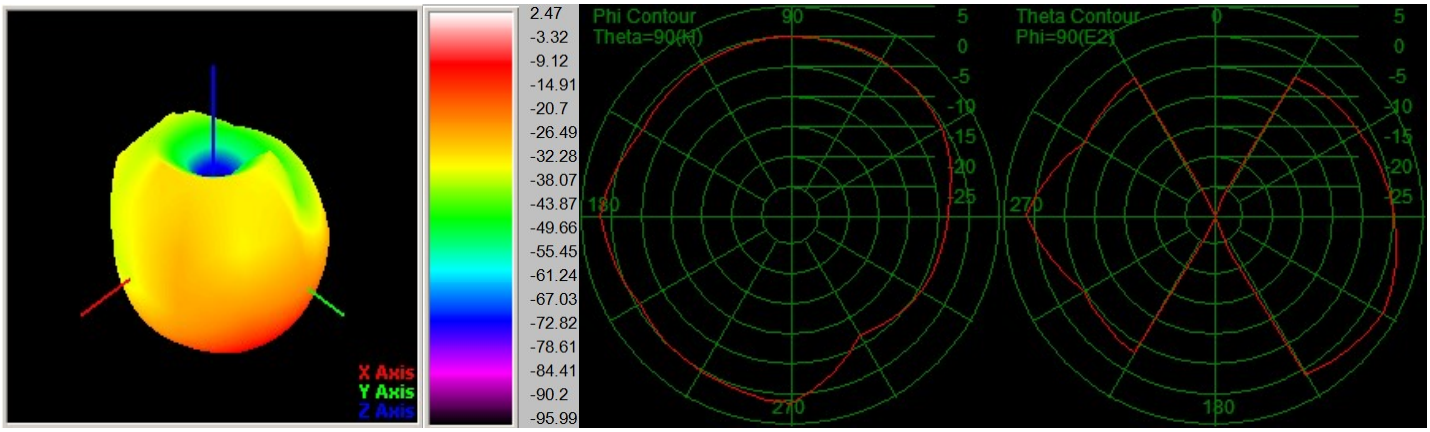

Passive -Freq5720.00MHZ

**Gain:2.51(dBi)**

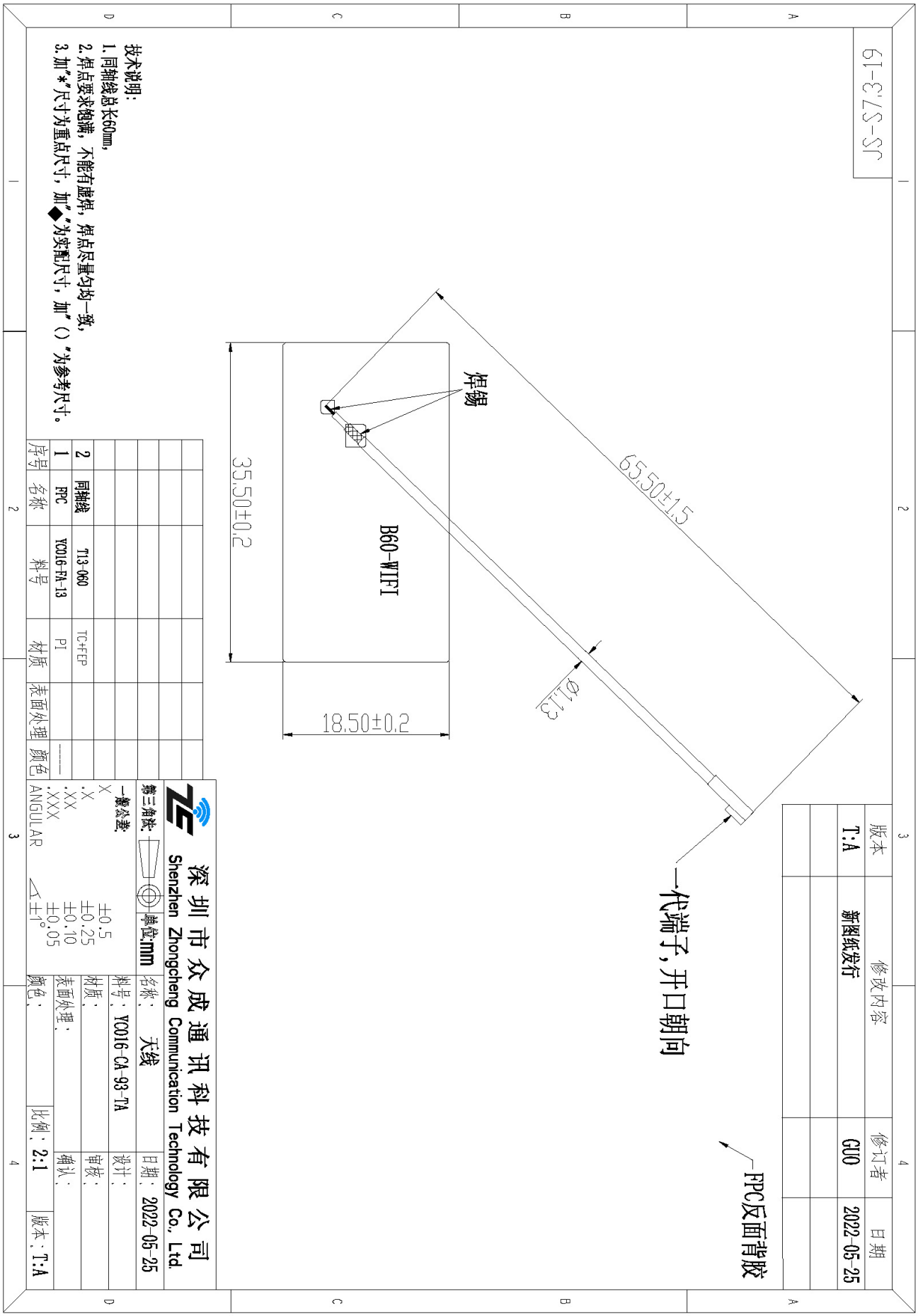



Passive -Freq5740.00MHZ

**Gain: 4.45(dBi)**




Passive -Freq5860.00MHZ

**Gain: 2.47(dBi)**

## 6. ME Drawing for the antenna