



# Antenna Approval Sheet

For

**CT702-Dual-Band** Project

|          |                  |         |                 |
|----------|------------------|---------|-----------------|
| Customer | HUAXINZHIYING    | Project | CT702-Dual-Band |
| Band     | WiFi 2.4GHZ/5GHZ |         |                 |
| ZC PN    | HA039-CA-93      |         |                 |
| Version  | R:A              | Data    | 2024-8-2        |

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



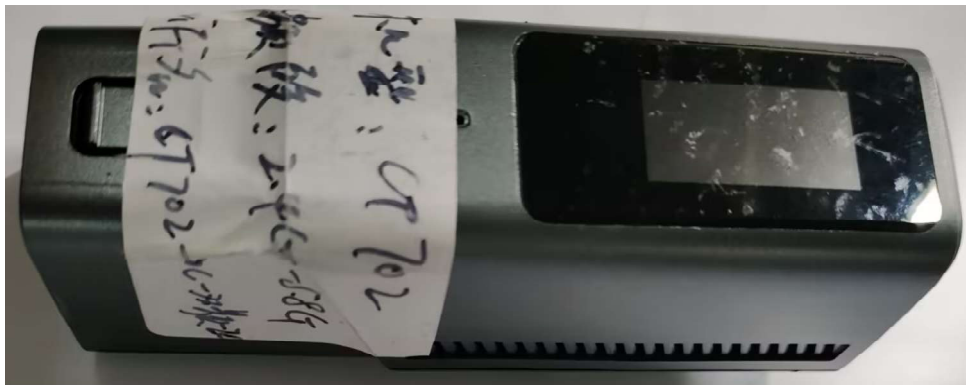
## 1.Manufacturer information

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

### CT702-Dual-Band Picture



### Antenna Picture



## 3. Electrical Specification:

|                  |                                                |
|------------------|------------------------------------------------|
| Antenna types    | Built-in WIFI Antenna                          |
| Frequency        | 2400-2500 MHz, 5150-5350MHZ, 5725-5850MHZ      |
| Impedance        | 50 $\Omega$                                    |
| VSWR             | < 2.0                                          |
| Gain             | 2.4GHZ 1.59dbi, 5.2GHZ 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 |      |      |

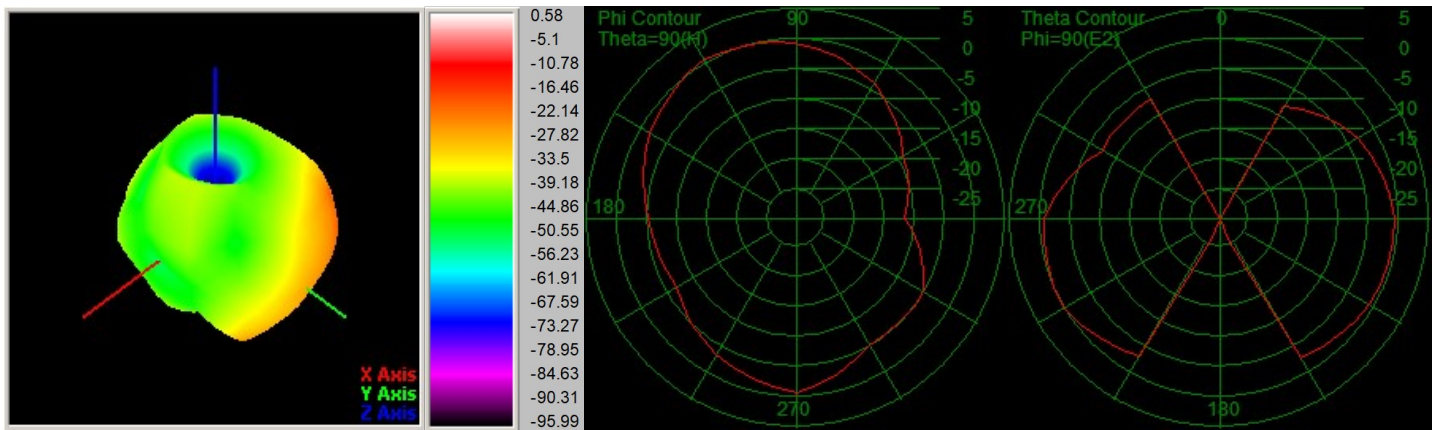
##### 5.2 S Parameter

|                  |        |        |        |
|------------------|--------|--------|--------|
| Frequency (MHz)  | 2400   | 2450   | 2480   |
| Return Loss (dB) | -20.58 | -22.74 | -15.39 |
| VSWR             | 1.63   | 1.28   | 1.81   |



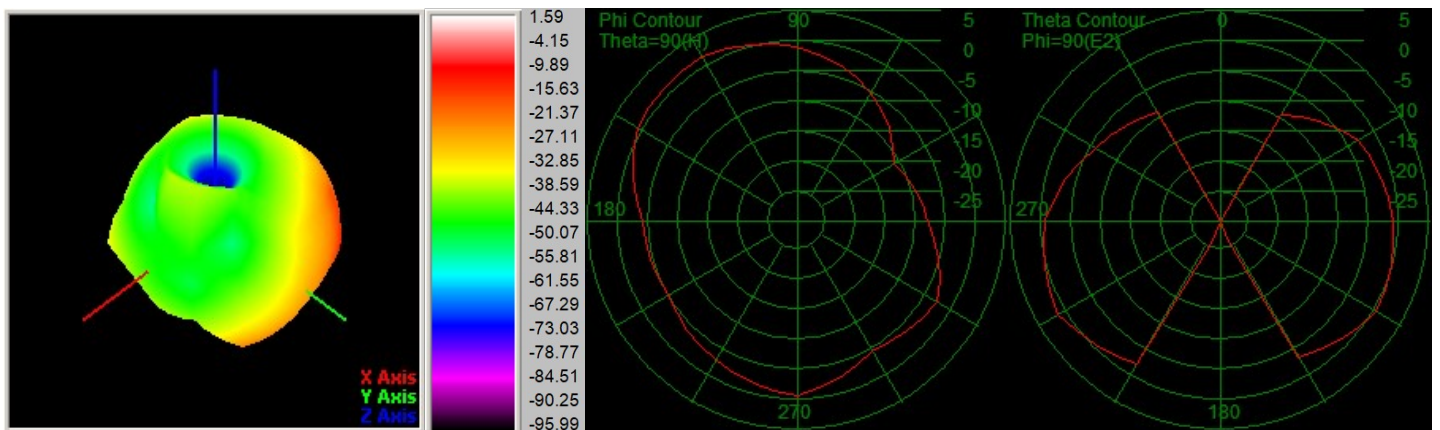


### 5.3 Radiation



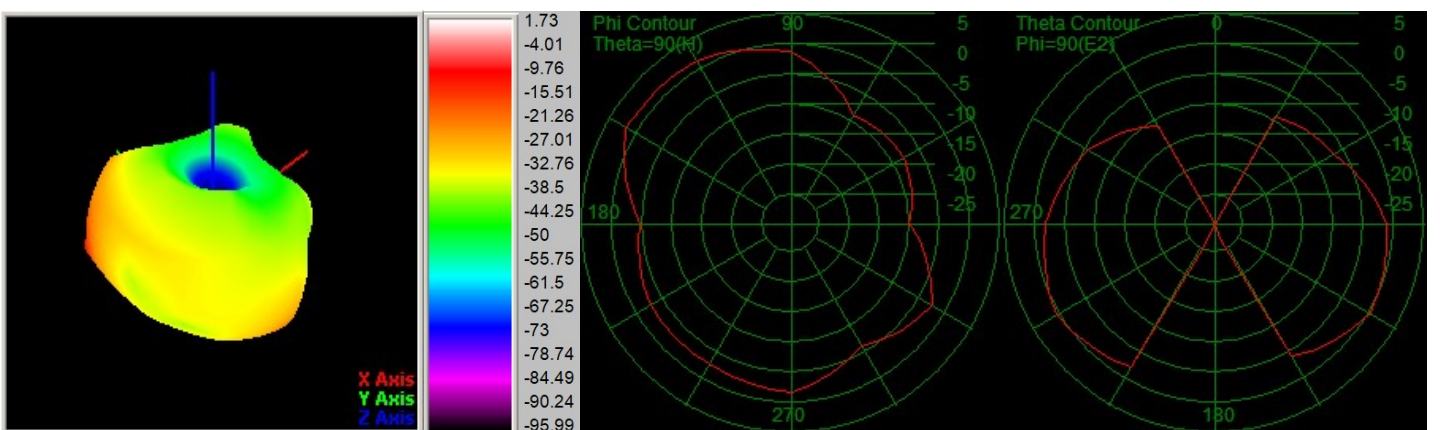
Passive -Freq2400.00MHZ

Gain:0.58(dBi)



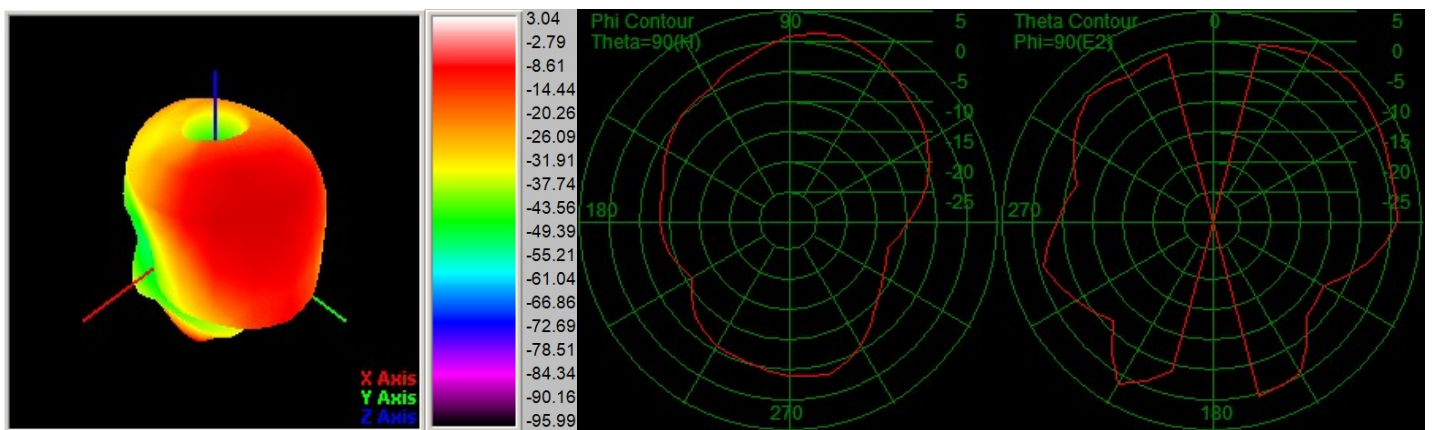
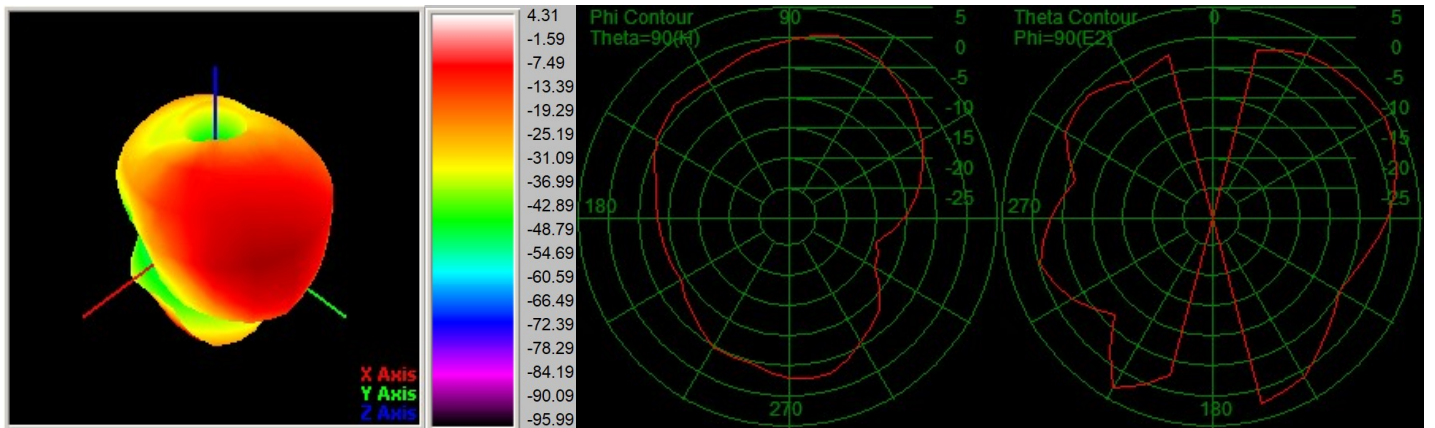
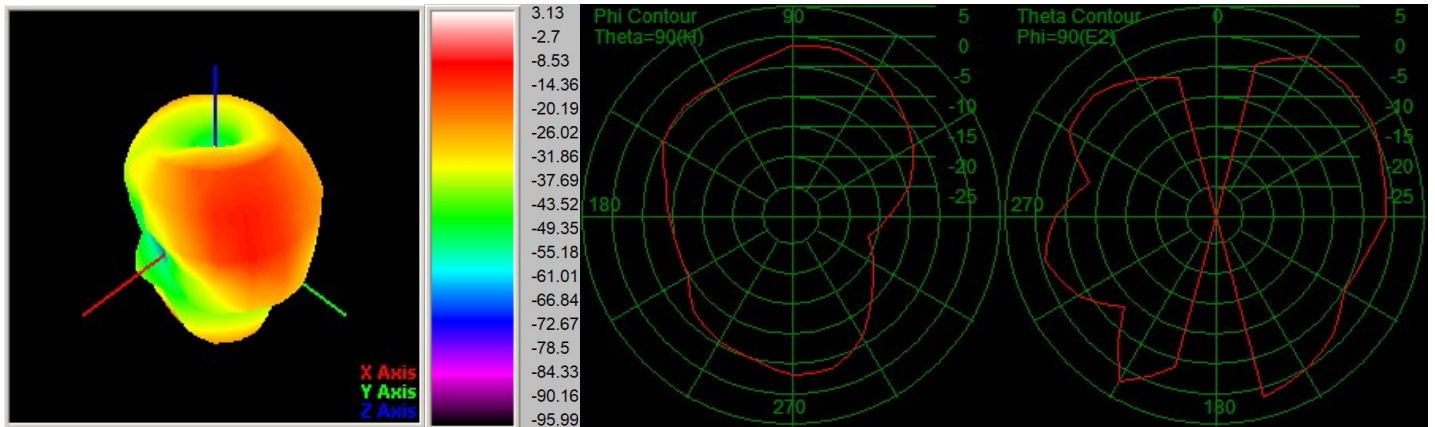
Passive -Freq2450.00MHZ

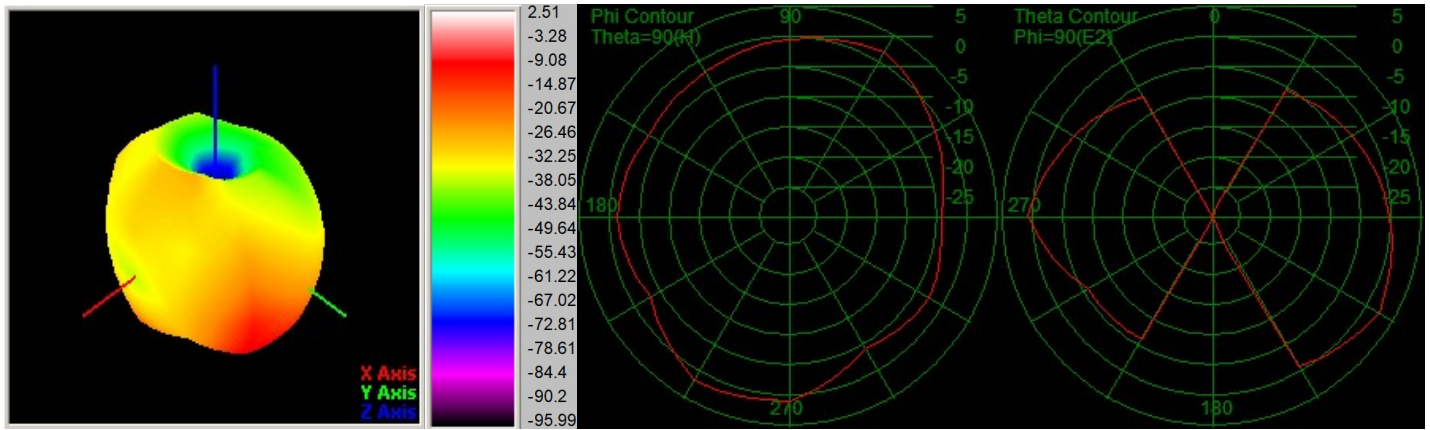
Gain: 1.59(dBi)



Passive -Freq2500.00MHZ

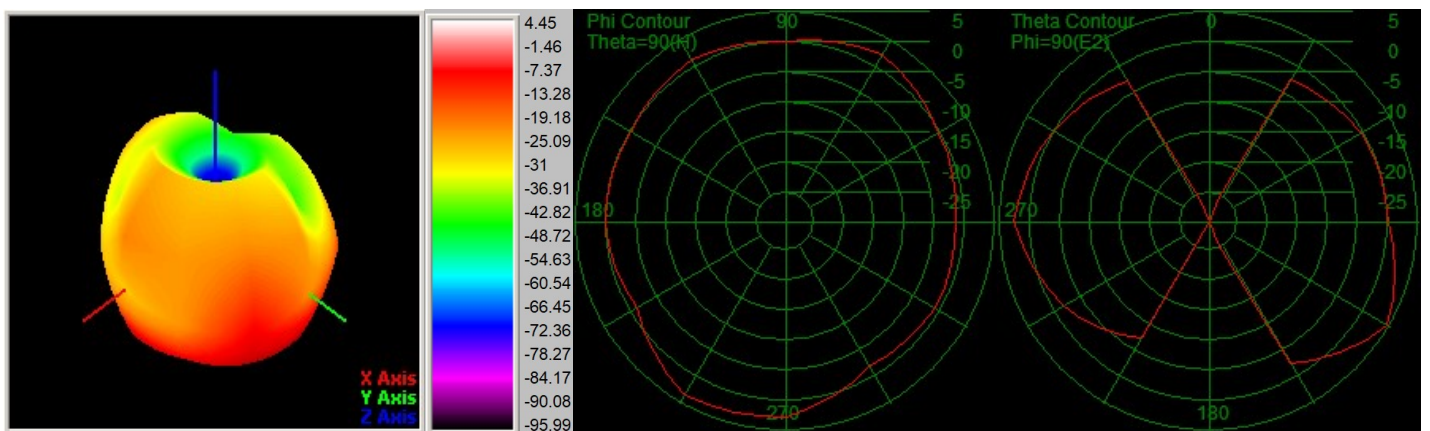
Gain: 1.73(dBi)





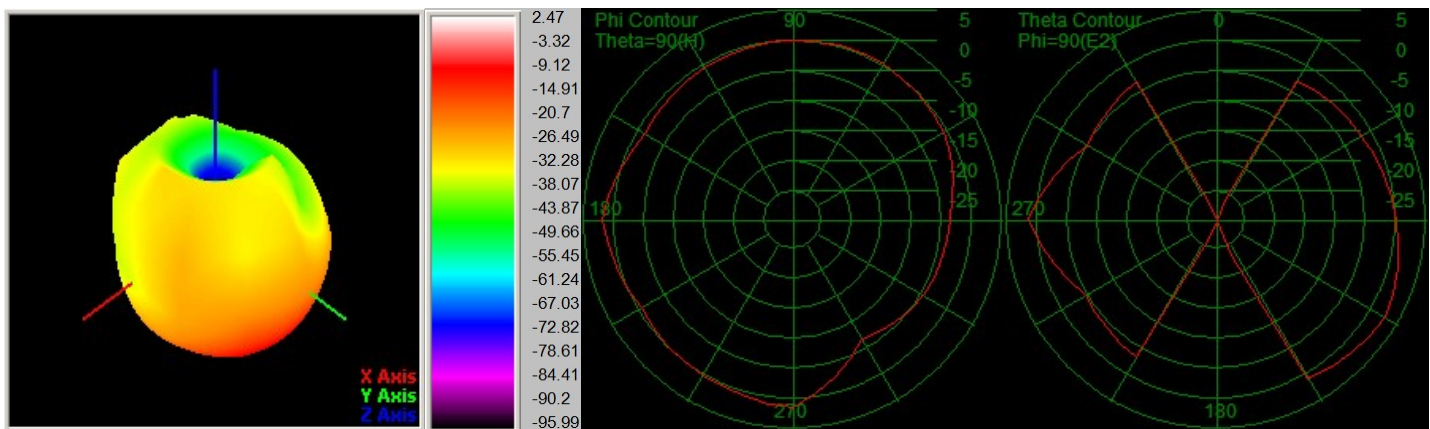
Passive -Freq5720.00MHZ

Gain:2.51(dBi)



Passive -Freq5740.00MHZ

Gain: 4.45(dBi)



Passive -Freq5860.00MHZ

Gain: 2.47(dBi)



6. ME Drawing for the antenna

