



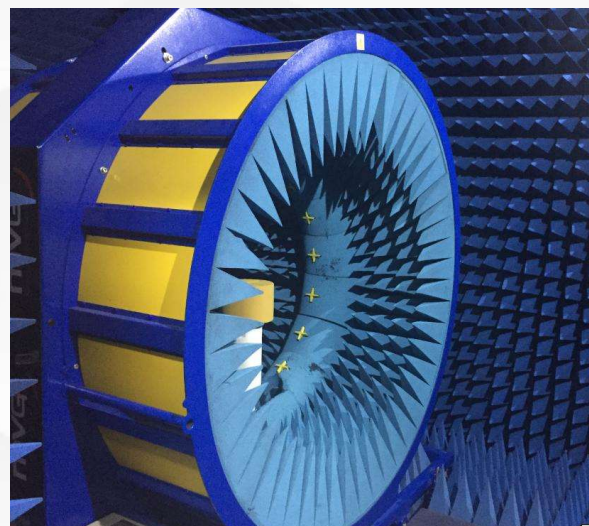
**Shenzhen cape deep communication technology co., LTD**

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## **test report**



## Laboratory test environment and equipment



| Test item                               | Test equipment  |
|---|---|
| S11、S12、VSWR、LOSS                       | Network analyzer 5071B、E5062A   |
| Efficiency、Gain<br>3D Radiation Pattern | Satimo SG16 darkroom、<br>GP7*4*3 darkroom、E5071B                          |
| TRP、TIS                                 | Satimo SG16 darkroom、<br>GP7*4*3 darkroom、8960、<br>CMW500、MT8820C、E4438C、 |

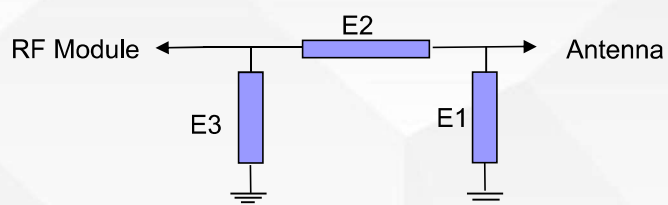


## Brief description of the project

|  |                                   |              |  |
|--|-----------------------------------|--------------|--|
| <b>Machine type</b>                                | watch                             |              |  |
|  | <b>Frequency band information</b> |              |  |
| <b>Antenna type and frequency band information</b> | antenna<br>BLE/BT                 | 2400-2480MHZ |  |
| <b>Antenna material</b>                            | lead                              |              |  |



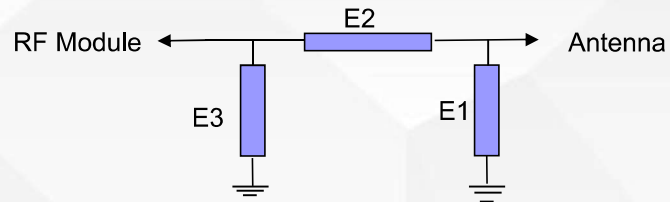
## BT cable distribution circuit



|    | Element  | Value |  |
|----|----------|-------|--|
| 手表 | E1(0201) |       |  |
|    | E2(0201) | 1PF   |  |
|    | E3(0201) | 2PF   |  |



## BLE antenna matching distribution circuit

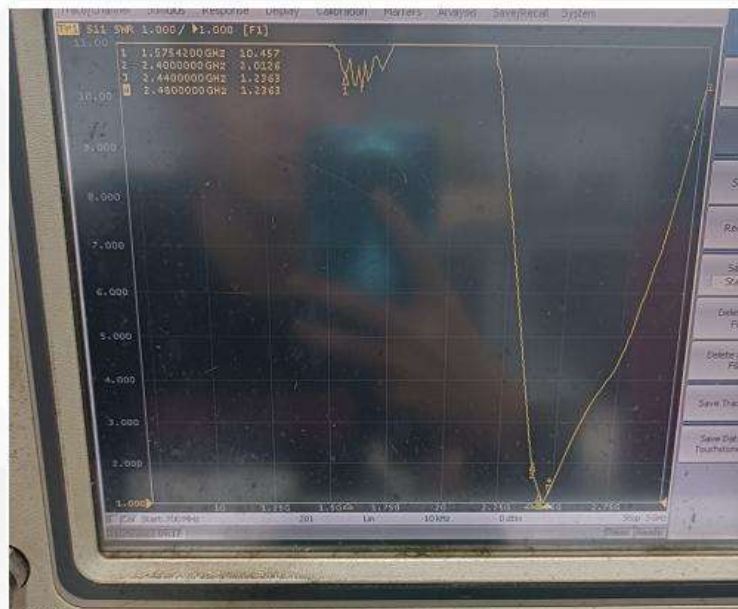


|       | Element  | Value |  |
|-------|----------|-------|--|
| watch | E1(0201) | 0.8NH |  |
|       | E2(0201) | 1.5PF |  |
|       | E3(0201) |       |  |



# Antenna passive standing wave diagram

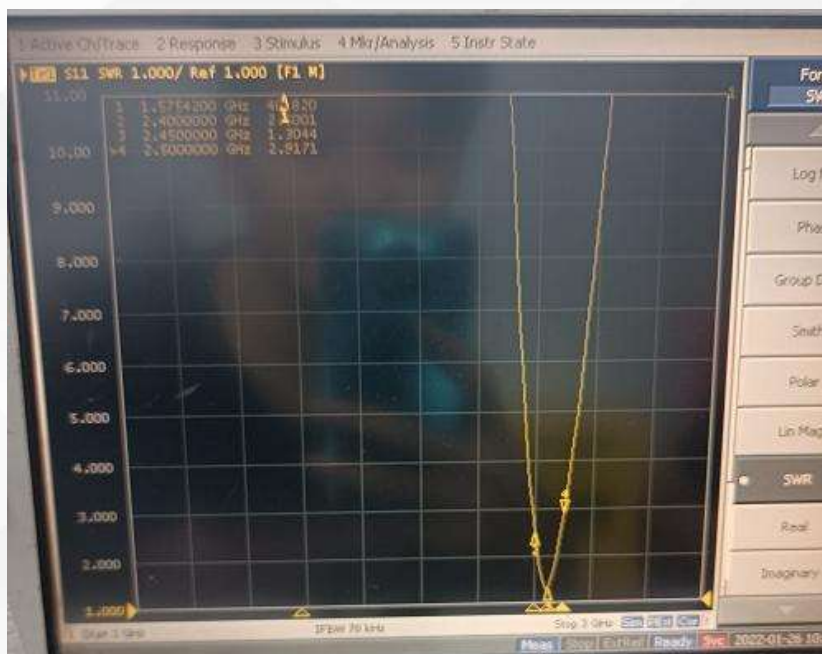
BLE





# Antenna passive standing wave diagram

BT





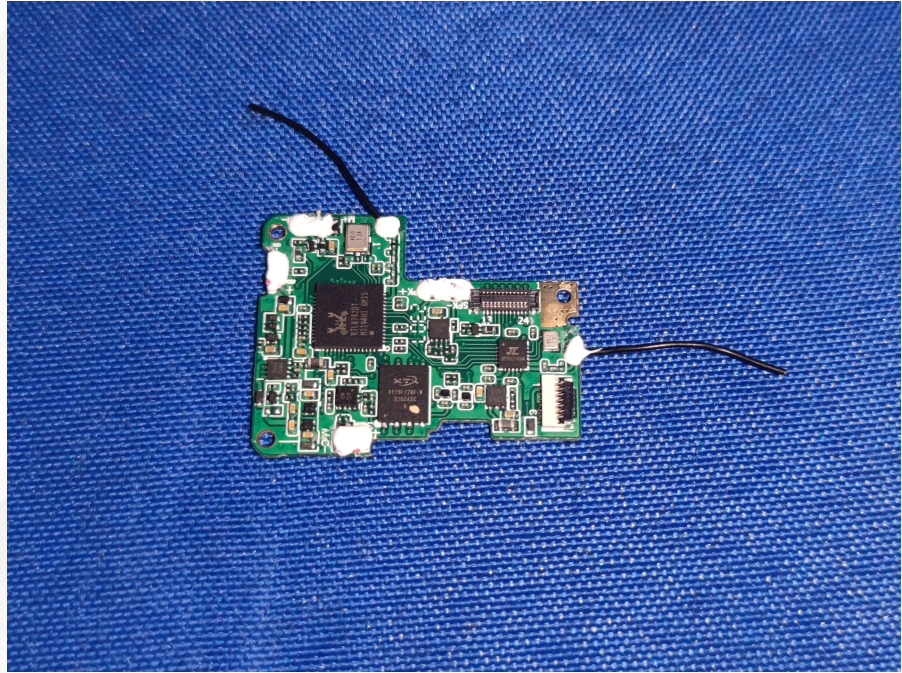
# Passive efficiency data graph

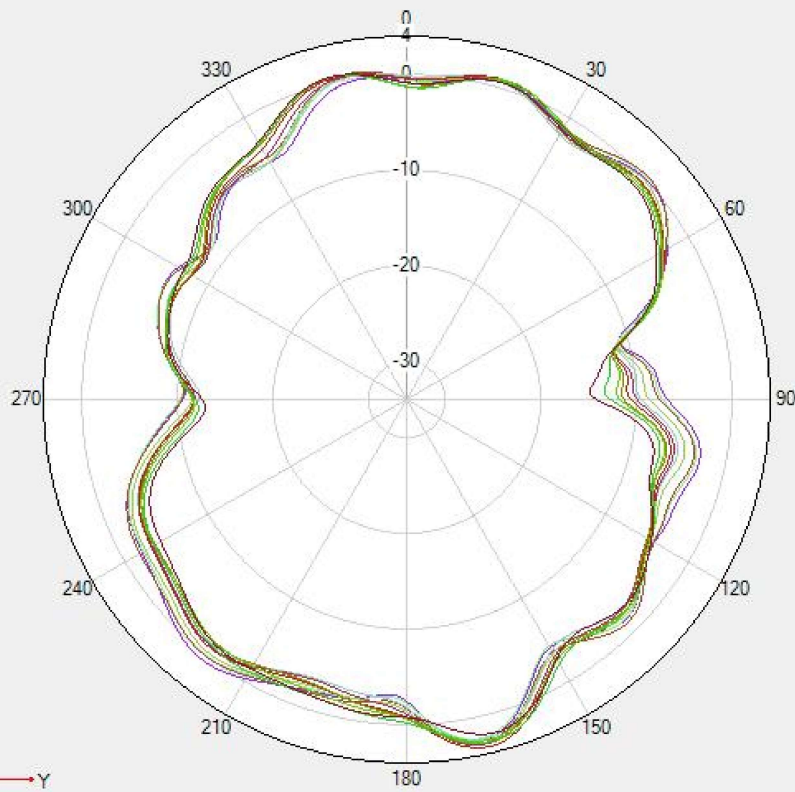
| Freq (MHz) | Effi (%) | Effi (dB) | Gain (dBi) |
|------------|----------|-----------|------------|
| 2400       | 4.88     | -13.11    | -9.8       |
| 2410       | 7.48     | -11.26    | -8         |
| 2420       | 11.03    | -9.58     | -6.34      |
| 2430       | 15.41    | -8.12     | -5         |
| 2440       | 19.76    | -7.04     | -3.93      |
| 2450       | 23.84    | -6.23     | -3.26      |
| 2460       | 25.85    | -5.87     | -2.99      |
| 2470       | 27.48    | -5.61     | -2.87      |
| 2480       | 29.99    | -5.23     | -2.57      |
| 2490       | 33.41    | -4.76     | -1.91      |
| 2500       | 34.21    | -4.66     | -1.76      |



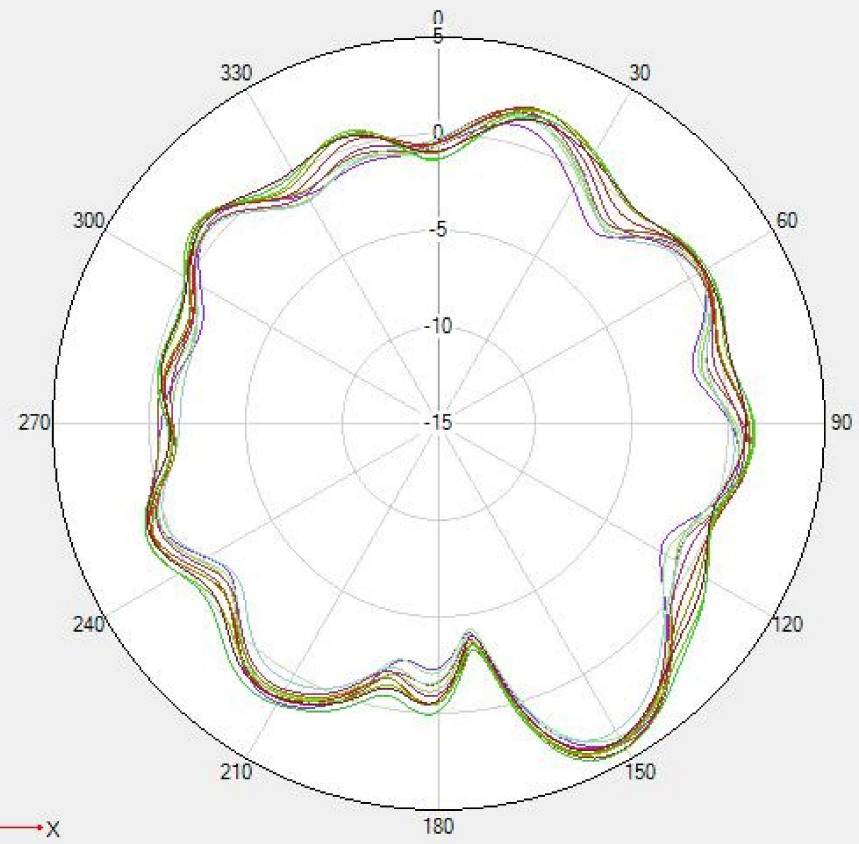


# Antenna placement

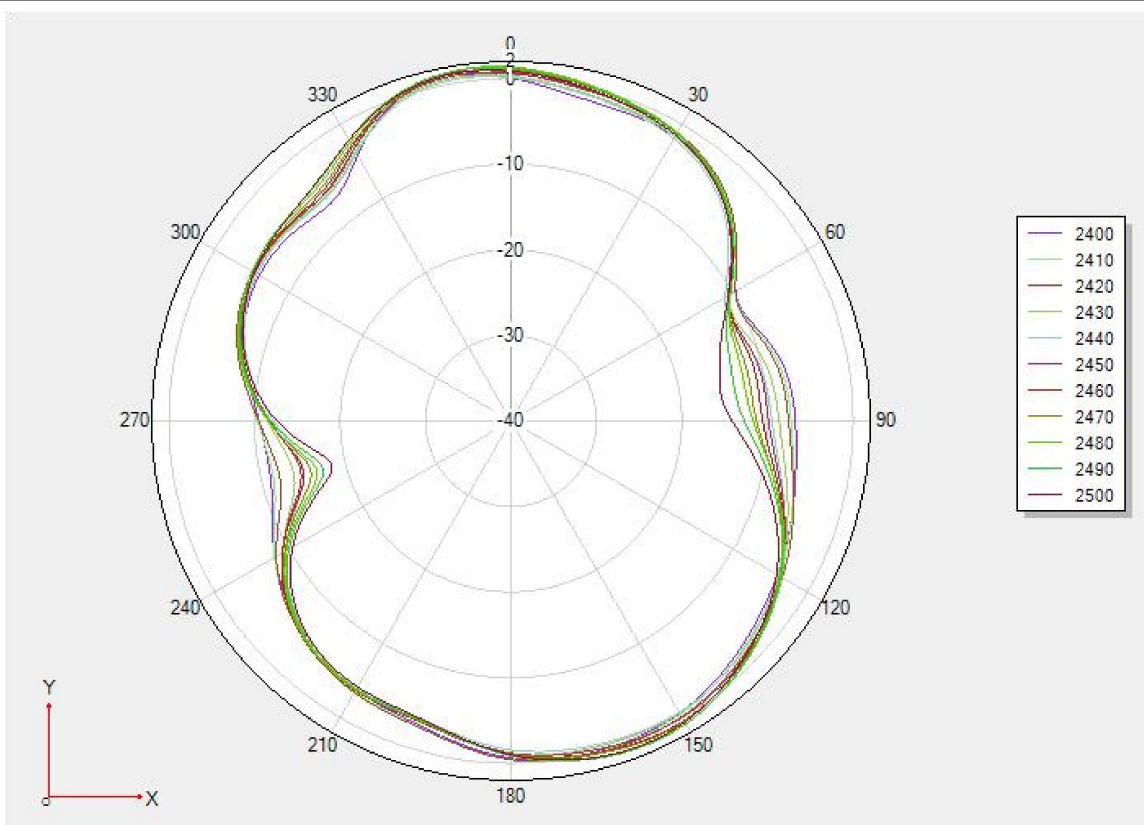




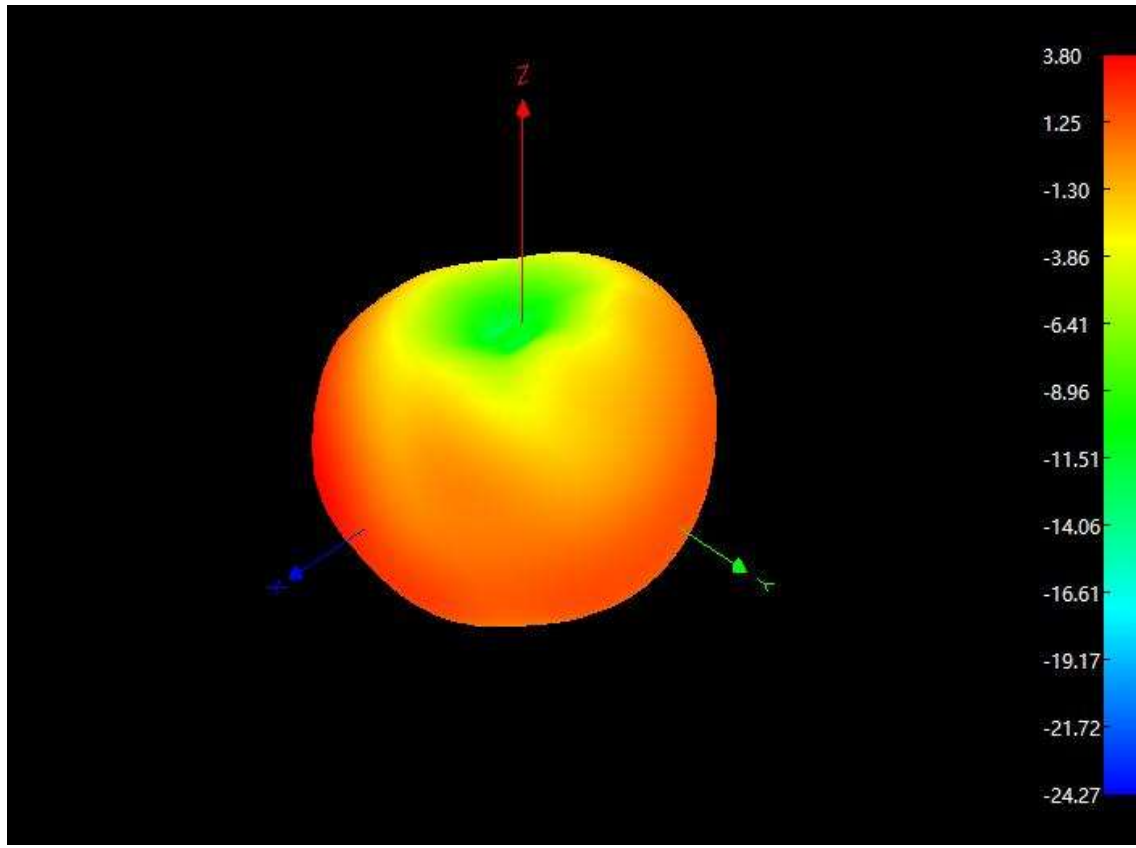
- 2400
- 2410
- 2420
- 2430
- 2440
- 2450
- 2460
- 2470
- 2480
- 2490
- 2500



- 2400
- 2410
- 2420
- 2430
- 2440
- 2450
- 2460
- 2470
- 2480
- 2490
- 2500



(3D  
Pattern)





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**THE END**