

Number: A20251108-002

# ANT REPORT

EUT NUMBER: 10008948

NAME: 391-WIFI/GPS/BT

SPECIFICATION: FPCB L\*W\*T=58.4\*25.2\*0.25mm, 1.13

L=123mm

SERIAL: KC. IA. 00687

MODEL: 391-WIFI/GPS/BT

4. 产品相片(Product photos):



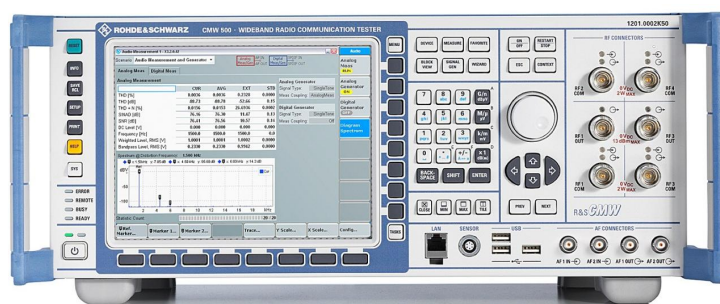
5. 机械及电气性能(Mechanics and Electrical Specification)

|                                       |                                |                             |                       |
|---------------------------------------|--------------------------------|-----------------------------|-----------------------|
| 产品名称(Name)                            | 391-GPS/WIFI                   | 产品型号(Model Type)            | KC. IA. 00687         |
| 电 性 能 指 标 (Electrical Specifications) |                                |                             |                       |
| 频率范围 (Frenquency Range)               | 2400-2500/5150-5850/1575.42MHZ | 极化方式 (Polarization)         | 线极化                   |
| 输入阻抗(Impedance)                       | 50 Ω                           | 辐射方向 (Radiation direction)  | 全向<br>omnidirectional |
| 驻波比 (VSWR)                            | ≤2                             | 功率容量(Power)                 | 10W                   |
| 增益(Gain)                              | 4.64 dBi (MAX)                 | 带宽 (Bandwidth)              | 5/100/700MHZ          |
| 机 械 指 标 (Mechanical Specifications)   |                                |                             |                       |
| 尺寸 (Dimensions)                       | L*W*T=58.4*25.2*0.25MMMM       | 颜色(colour)                  | 黑色black               |
| 连接器型号 (Connector)                     | IPEX-1                         | 引线长度(Cable Length)          | 123MM(RF1.13)         |
| 材料 Radome Material                    | FPC                            | 防水 (waterproof)             | /                     |
| 工作温度<br>(Working Temperature)         | -40℃~+85℃                      | 存放温度<br>(Limit Temperature) | -40℃~+85℃             |
| 天线类型 (Antenna type)                   | monopole                       |                             |                       |

## 6 性能报告 (Performance report)

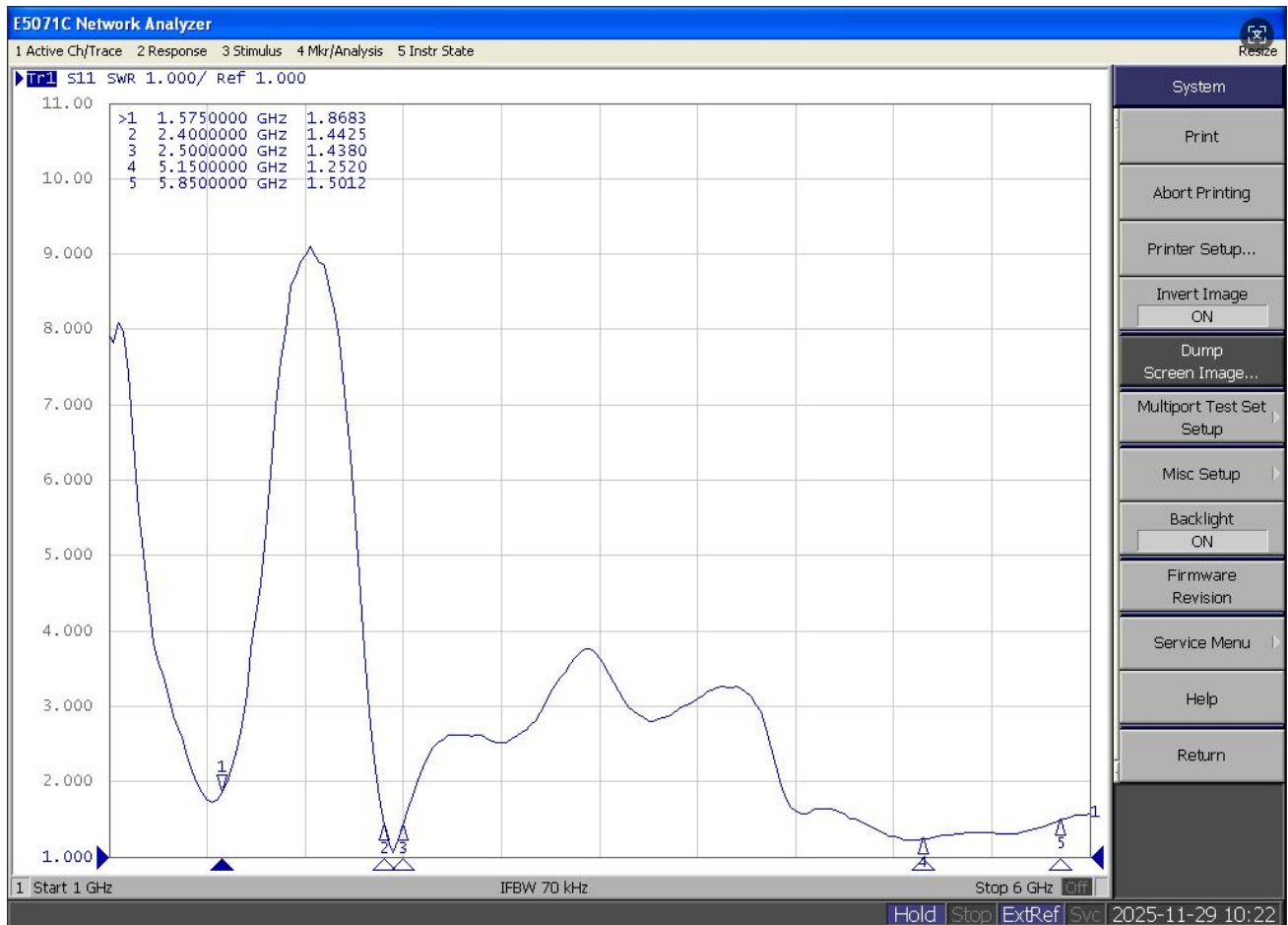
### 6.1 测试项目及设备 Test Items and Equipment

|                                         | 测试项目 Test Items                                                   | 测试设备 Test Equipment                                                                                |
|-----------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| S Parameter                             | 1. Return loss<br>2. VSWR                                         | Network analyzar<br>(Aglient E5071C )                                                              |
| The whole machine of Passive parameters | 1. Frequency<br>2. Gain<br>3. Radiation Patten                    | 1. 3D microwarve darkroom<br>(4M*3M*3M)<br>2. Network analyzer                                     |
| The whole machine of Active parameters  | 1. TRP<br>2. TIS                                                  | 1. 3D microwave darkroom<br>(4M*3M*3M)<br>3. Comprehensive test instrument<br>4. (CMW500) (E7515E) |
| Instrument calibration                  | Once a year, Last calibration: 2024.10.22, Valid until:2025.10.21 |                                                                                                    |



## 6.2 性能报告(Performance report)

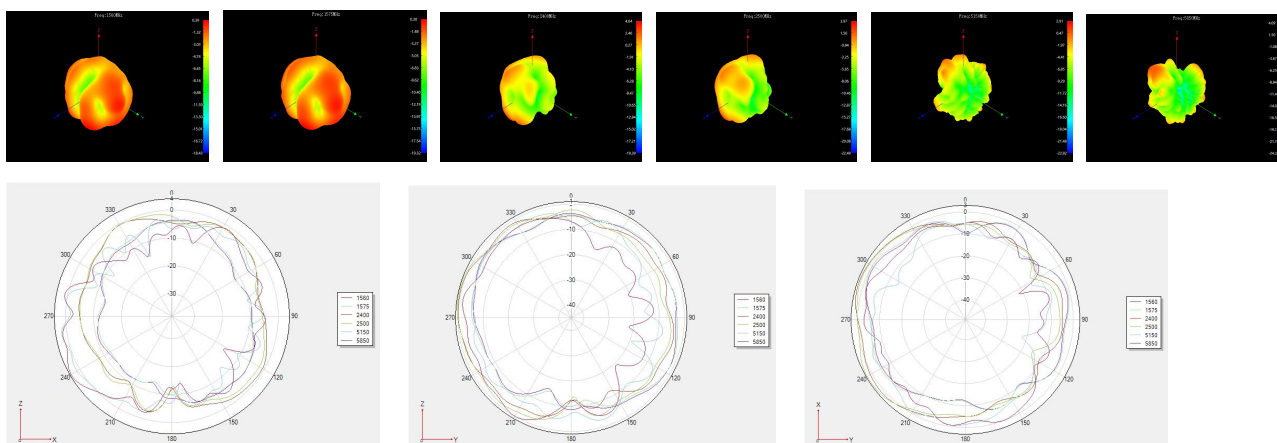
### 6.2.1 电压驻波比 (VSWR) :



### 6.2.2 效率@增益 (Efficiency and Gain) :

| Frequency/Mhz | MaxGain/dBi | Efficiency / % | Frequency/Mhz | MaxGain/dBi | Efficiency / % |
|---------------|-------------|----------------|---------------|-------------|----------------|
| 1560          | 0.39        | 43.42          | 5150          | 2.91        | 61.61          |
| 1565          | 0.27        | 46.48          | 5200          | 2.5         | 59.34          |
| 1570          | 0.3         | 42.66          | 5250          | 2.68        | 58.71          |
| 1575          | 0.3         | 40.62          | 5300          | 2.34        | 56.37          |
| 1580          | 0.38        | 43.51          | 5350          | 2.8         | 59.18          |
|               |             |                | 5400          | 2.8         | 56.21          |
| 2400          | 4.64        | 71.94          | 5450          | 2.53        | 56.98          |
| 2410          | 4.45        | 67.14          | 5500          | 2.99        | 57.07          |
| 2420          | 3.91        | 66.07          | 5550          | 2.62        | 55.24          |
| 2430          | 4.35        | 70.31          | 5600          | 2.16        | 53.81          |
| 2440          | 3.75        | 67.14          | 5650          | 2.52        | 56.64          |
| 2450          | 3.78        | 65.01          | 5700          | 2.96        | 57.93          |
| 2460          | 3.57        | 65.31          | 5750          | 3.15        | 51.21          |
| 2470          | 3.45        | 65.31          | 5800          | 2.95        | 51.3           |
| 2480          | 3.92        | 68.08          | 5850          | 4.09        | 53.15          |
| 2490          | 3.79        | 71.45          |               |             |                |
| 2500          | 3.97        | 71.45          |               |             |                |

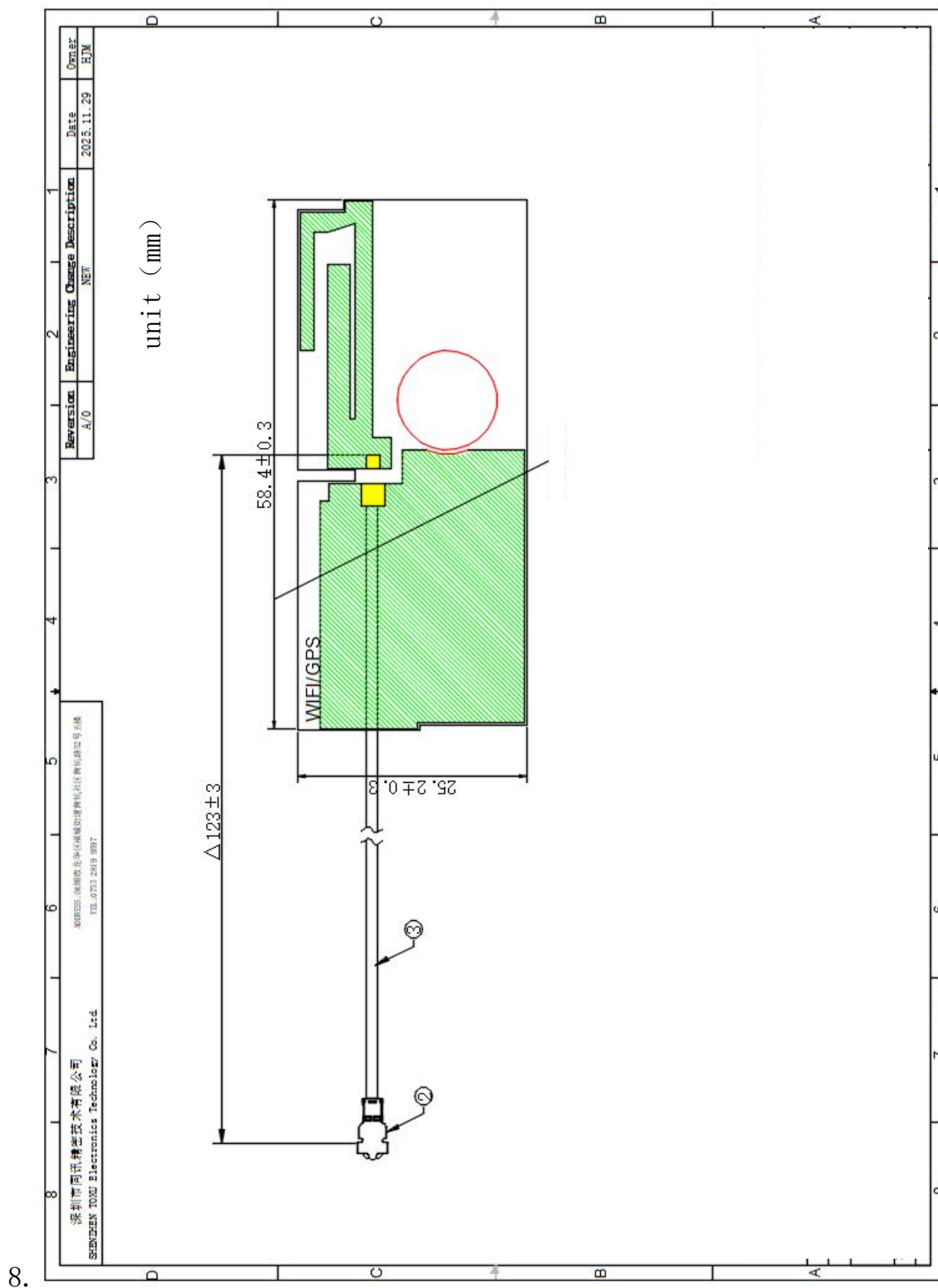
### 6.2.3 3D@2D辐射方向 (3D & 2D Radiation Pattern) :



## 6.2.4有源OTA测试（OTA testing）：

| Band             | Channel | Frequency | Max    | Min    | Total  |
|------------------|---------|-----------|--------|--------|--------|
| WIFI_B (11M)     | 1       | 2412      | 18.3   | 1.63   | 14.11  |
| WIFI_B (11M)     | 11      | 2462      | 19.78  | 2.44   | 14.33  |
| WIFI_B (11M)     | 11      | 2462      | -73.37 | -90.73 | -85.18 |
| WIFI_G (54M)     | 1       | 2412      | 15.69  | -0.95  | 11.54  |
| WIFI_G (54M)     | 11      | 2462      | 17.55  | -0.22  | 12.14  |
| WIFI_G (54M)     | 11      | 2462      | -61.79 | -79.29 | -73.55 |
| WIFI_N_ISM (65M) | 1       | 2412      | 16.22  | -0.23  | 11.13  |
| WIFI_N_ISM (65M) | 11      | 2462      | 18     | 0.35   | 12.22  |
| WIFI_N_ISM (65M) | 11      | 2462      | -57.13 | -74.82 | -69.1  |

## 7. 成品图 (Customer Drawing)



包装方式 (Packaging) :

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |              |       |          |     |  |  |          |       |  |  |                 |    |  |  |               |    |  |  |        |         |              |       |         |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|-------|----------|-----|--|--|----------|-------|--|--|-----------------|----|--|--|---------------|----|--|--|--------|---------|--------------|-------|---------|--|--|--|
| Product number:   xxxxx                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |              |       |          |     |  |  |          |       |  |  |                 |    |  |  |               |    |  |  |        |         |              |       |         |  |  |  |
| Product model:   xxxxx                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |              |       |          |     |  |  |          |       |  |  |                 |    |  |  |               |    |  |  |        |         |              |       |         |  |  |  |
| <p>一、Label requirements:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Customer</td> <td colspan="3">xxx</td> </tr> <tr> <td>supplier</td> <td colspan="3">xxxxx</td> </tr> <tr> <td>Material coding</td> <td colspan="3">xx</td> </tr> <tr> <td>Product model</td> <td colspan="3">xx</td> </tr> <tr> <td>Number</td> <td>XXX PCS</td> <td>Factory date</td> <td>X X X</td> </tr> <tr> <td>Remarks</td> <td colspan="3"></td> </tr> </table> |         |              |       | Customer | xxx |  |  | supplier | xxxxx |  |  | Material coding | xx |  |  | Product model | xx |  |  | Number | XXX PCS | Factory date | X X X | Remarks |  |  |  |
| Customer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | xxx     |              |       |          |     |  |  |          |       |  |  |                 |    |  |  |               |    |  |  |        |         |              |       |         |  |  |  |
| supplier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | xxxxx   |              |       |          |     |  |  |          |       |  |  |                 |    |  |  |               |    |  |  |        |         |              |       |         |  |  |  |
| Material coding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | xx      |              |       |          |     |  |  |          |       |  |  |                 |    |  |  |               |    |  |  |        |         |              |       |         |  |  |  |
| Product model                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | xx      |              |       |          |     |  |  |          |       |  |  |                 |    |  |  |               |    |  |  |        |         |              |       |         |  |  |  |
| Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | XXX PCS | Factory date | X X X |          |     |  |  |          |       |  |  |                 |    |  |  |               |    |  |  |        |         |              |       |         |  |  |  |
| Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |              |       |          |     |  |  |          |       |  |  |                 |    |  |  |               |    |  |  |        |         |              |       |         |  |  |  |
| <p>二、Boxing:</p> <p>Job description:</p> <p>1. Inner packaging:</p> <p>XXpcs A bag</p> <p>2. External packaging:</p> <p>Xx PCS ;</p> <p>3. Matters needing attention:</p> <p>a. Whether to add partition and pearl cotton;</p> <p>b. Label attachments, such as ROHS, etc.;</p>                                                                                                                                                                                                                     |         |              |       |          |     |  |  |          |       |  |  |                 |    |  |  |               |    |  |  |        |         |              |       |         |  |  |  |

