

|                      |                                  |
|----------------------|----------------------------------|
| <b>CUSTOMER NAME</b> | Shenzhen Aoni Electronic Co.,Ltd |
| <b>CUSTOMER P/N</b>  | B097JL                           |
| <b>PART NAME</b>     | Bluetooth Antenna                |
| <b>DWM NO.</b>       |                                  |
| <b>APPROVAL REV.</b> | R:A                              |

| <b>CONTRACTOR</b>     |                       |                       | <b>DATE : 2023-06-05</b>   |
|-----------------------|-----------------------|-----------------------|----------------------------|
| <b>QA<br/>CHECKED</b> | <b>ME<br/>CHECKED</b> | <b>RF<br/>CHECKED</b> | <b>MANAGER<br/>CHECKED</b> |
|                       |                       |                       |                            |

| <b>CUSTOMER</b>    |                   | <b>DATE :</b>      |
|--------------------|-------------------|--------------------|
| <b>Approved By</b> | <b>Checked By</b> | <b>Prepared By</b> |
|                    |                   |                    |

|      |                      |            |       |
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## 1. Product Application

Terminal of the antenna products can only be used for Bluetooth antenna.

## 2. The test environment, equipment

| Item | Description                                | Test Condition                                                                                                                                                                                                                     | Requirement               |
|------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 2.1  | Passive testing                            | The VSWR measurement devices are connected in sequence: Agilent 5071B Network Analyzer → measurement Cable → Customer-providing Devices.                                                                                           | VSWR:<br>2400-2500MHz ≤ 2 |
|      |                                            | Test equipment                                                                                                                                                                                                                     |                           |
|      |                                            |                                                                                                                                                |                           |
| Item | Description                                | Test Condition                                                                                                                                                                                                                     |                           |
| 2.2  | Active test                                | The antenna is tested within the cell mainboard provided by clients. Follow picture shows the measurement condition of the antenna been put on the measurement device, which is used for all measurement of electric performances. |                           |
| 2.3  | Microwave Anechoic chamber<br>(Satimo&ETS) | Test equipment                                                                                                                                                                                                                     |                           |

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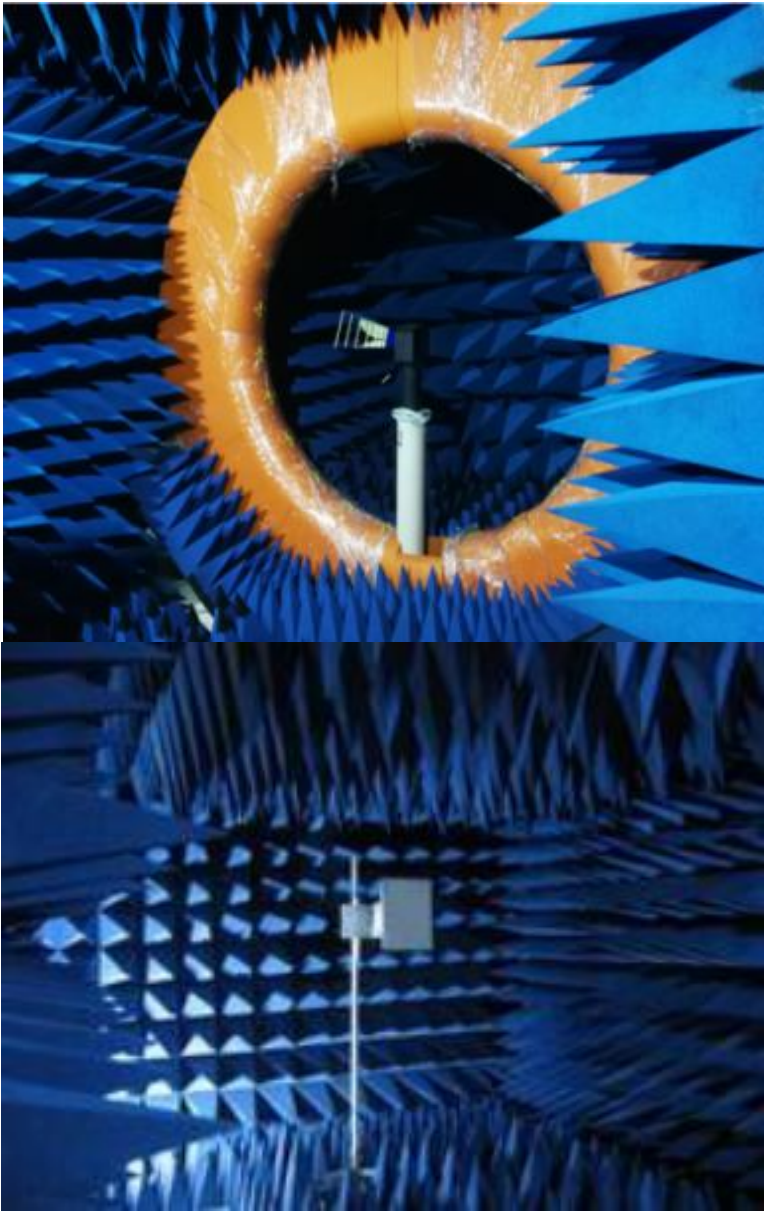
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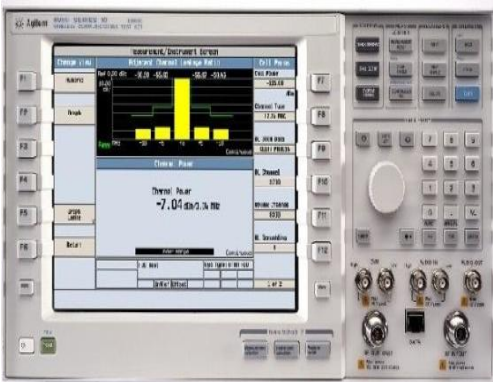
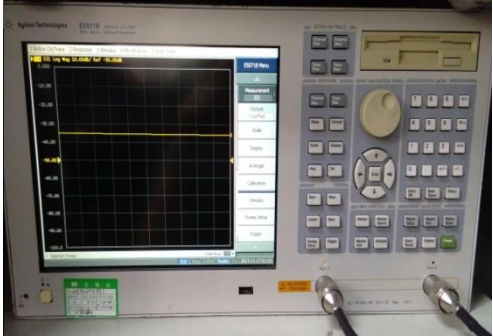
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CMW500

Agilent5071B  
AgilentE4405B

Agilent8960



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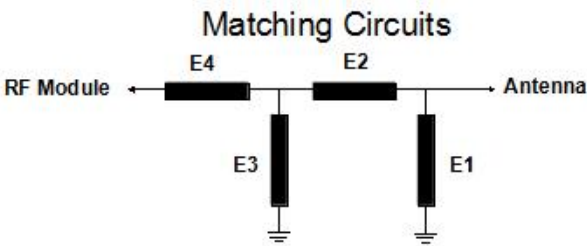
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## 3. Technology Parameters

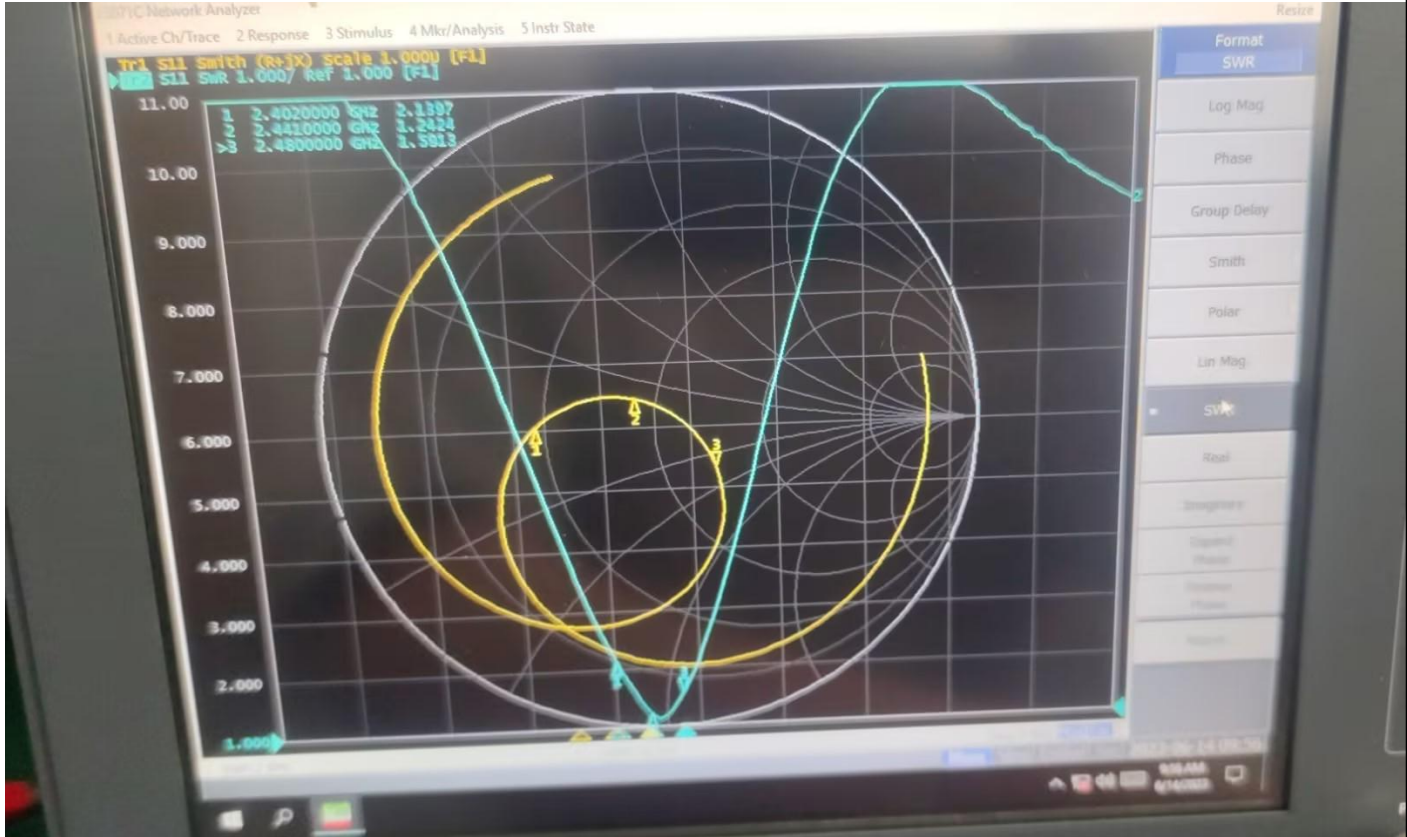
Frequency Range: 2400MHz-2500MHz  
Operating Humidity: 85%R.H.MAX  
Temperature Rating: -40℃ ~ +85℃

### 3.1 The matching test value

| Element  | Value |
|----------|-------|
| E1(0402) | N/A   |
| E2(0402) | 1.2nH |
| E3(0402) | 2.4pF |
| E4(0402) | 0Ω    |



### 3.2 VSWR:



|      |                             |            |       |
|------|-----------------------------|------------|-------|
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### 3.3 Efficiency And Gain:

| Fre  | Effi   | Effi . dB | Gain.dB |
|------|--------|-----------|---------|
| 2400 | 55.14% | -1.58     | 2.0     |
| 2410 | 56.12% | -1.51     | 1.91    |
| 2420 | 57.49% | -1.40     | 1.88    |
| 2430 | 58.79% | -1.31     | 1.84    |
| 2440 | 59.37% | -1.26     | 1.75    |
| 2450 | 60.15% | -1.21     | 1.69    |
| 2460 | 60.50% | -1.18     | 1.63    |
| 2470 | 60.30% | -1.20     | 1.59    |
| 2480 | 59.88% | -1.23     | 1.55    |
| 2490 | 59.11% | -1.28     | 1.45    |
| 2500 | 57.72% | -1.39     | 1.27    |