



# 规格承认书

## Approval Sheet

客户名称 麦孚瑞

(Customer Name)

产品名称 ME61-WIFI/BT Antenna

(Specification)

客户料号 \_\_\_\_\_

(Customer P/N)

产品料号 \_\_\_\_\_

(O/I)

送样日期 2023-08-30

(Date)

|                       |           |         |  |
|-----------------------|-----------|---------|--|
| Frequency band        | WIFI / BT |         |  |
| Version               | A         |         |  |
| RF                    | 彭巍        | Confirm |  |
| Structural Engineer   | 杨学忠       |         |  |
| Customer confirmation |           |         |  |
| Date                  |           |         |  |

# Catalogue

1. Project image

2. Test fixture

3. Matching circuit

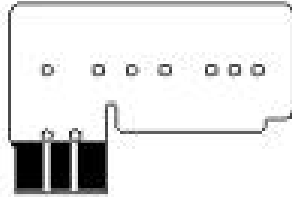
4. S11 Test electrical performance

4.1 S11 Test Method Description Specification Standards

4.2 S11 Parameter image

5. Structural drawings

## 1. Project image (for reference only)

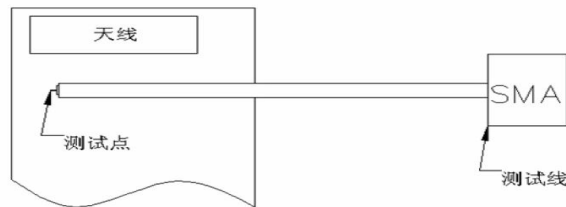


WIFI/BT Antenna

## 2. 无源测试

Purpose: To test the passive parameters of the antenna as accurately as possible.

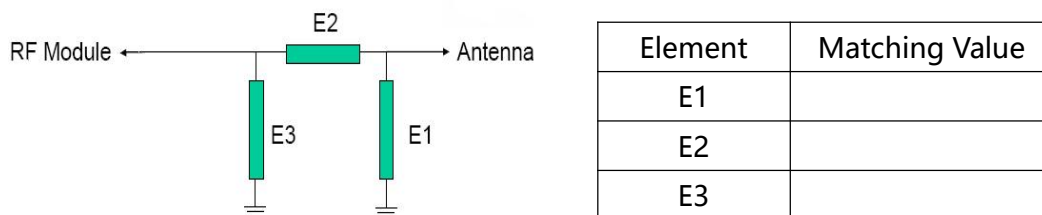
Method: This fixture uses a 50 ohm coaxial cable, with one end connected to the test point at the back end of the matching circuit (RF test hole front section) of the mobile phone motherboard, and the other end connected to the SMA connector. As shown in the following figure:



The following table shows the performance test indicators for ME61 mass-produced antennas:

| ME61WIFI / BT Antenna |                  |            |                 |            |
|-----------------------|------------------|------------|-----------------|------------|
|                       | Frequency (MHz)  | VSWR       | Frequency (MHz) | VSWR       |
| Frequency band        | Transmitting end |            | Receiving end   |            |
| 2.4G WIFI             | 2400-2500        | $\leq 1.4$ | 2400-2500       | $\leq 1.6$ |
| BT                    | 2400-2500        | $\leq 1.4$ | 2400-2500       | $\leq 1.6$ |
| 5G WIFI               | 5150-5850        | $\leq 1.8$ | 5150-5850       | $\leq 1.4$ |

### 3. Matching circuit

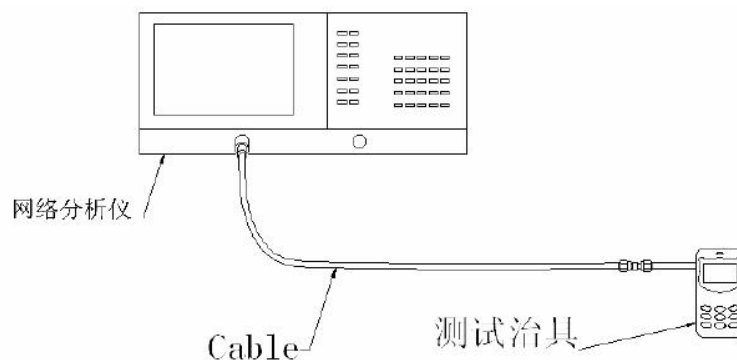


### 4. S11Test

#### 4.1 S11Test Method Description Specification Standards

VSWR The testing devices are sequentially connected as follows :  
 E5071B Network analyzer → 50Ω Coaxial line → 120mm Copper tube → Test fixture.

Treatment of testing fixture: Use a hard cable to lead out the SMA-J connector from the 50 ohm test point of the antenna on the mobile phone PCB, connect it to a copper pipe with a choke ring, and then connect other devices in sequence.



Test diagram



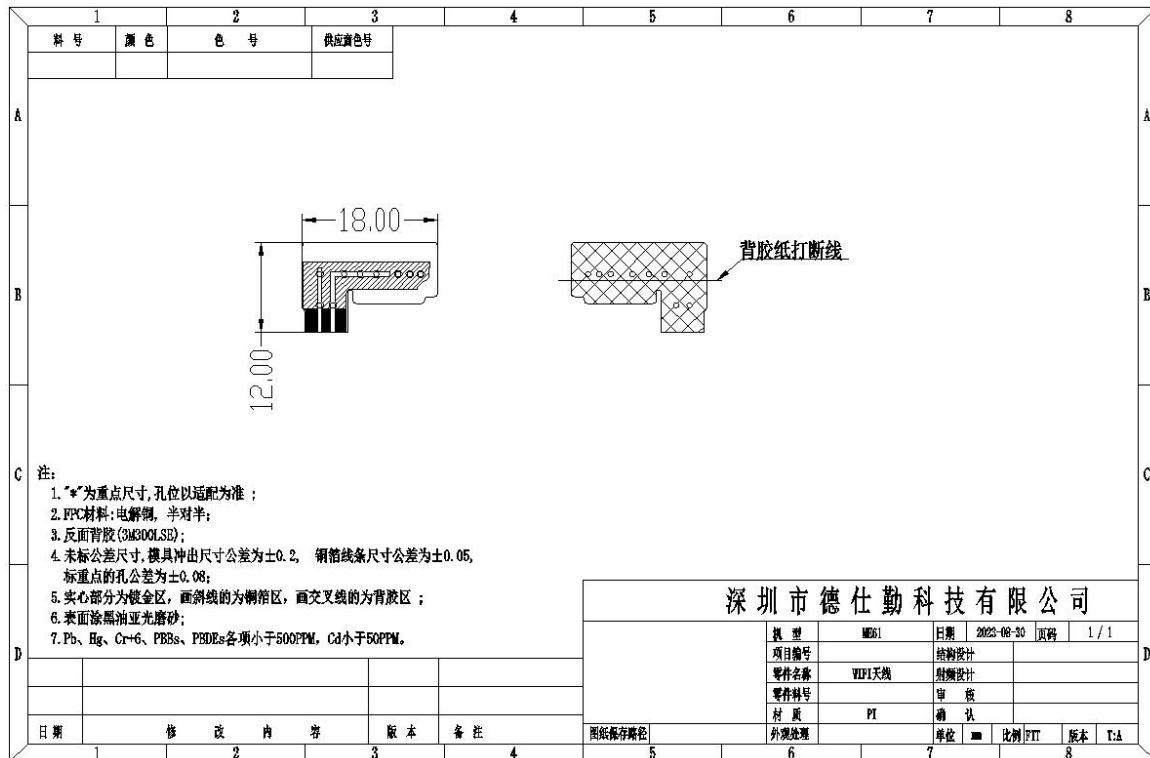
#### 4: Antenna Test

| Chan<br>nel | 11B     |        |        | 11G     |        |        |
|-------------|---------|--------|--------|---------|--------|--------|
|             | CH1     | CH7    | CH13   | CH1     | CH7    | CH13   |
| TRP         | 12.11   | 12.18  | 12.07  | 10.78   | 10.97  | 10.69  |
| TIS         | -85.48  | -84.57 | -84.51 | -69.82  | -69.36 | -68.34 |
| Gain        | +0.6dBi |        |        | +0.6dBi |        |        |
| Chan<br>nel | 11N     |        |        | 11A     |        |        |
|             | CH1     | CH7    | CH13   | CH36    | CH60   | CH165  |
| TRP         | 10.97   | 11.0   | 10.68  | 10.70   | 10.14  | 11.65  |
| TIS         | -66.07  | -66.33 | -65.82 | -69.74  | -70.17 | -70.22 |
| Gain        | +0.6dBi |        |        | +1.1dBi |        |        |

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|      |                                 |                                            |
|------|---------------------------------|--------------------------------------------|
| WIFI | Normal internet distance<br>(m) | Smooth distance for online<br>browsing (m) |
|      | 12-15                           | 10-12                                      |
| BT   | Clear call distance (m)         |                                            |
|      | 10-12                           |                                            |

## 5: Structural drawings



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