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Huaning Road, Dalang Street, Longhua District, Shenzhen City, Guangdong Province

# 规格书

| 客户<br>Customer      | Youmi   | 规格型号<br>Specs         | A15 Tab  |
|---------------------|---|-----------------------|--|
| 安威料号<br>Part Number | AW006-A15TAB-021-A0<br>AW006-A15TAB-022-A0<br>AW006-A15TAB-023-A0 | 频 段<br>Frequency Band | BT&2.5G WIFI:2400~2483.5MHZ<br>5G WIFI:5100~5800MHZ<br>GSM850/900/1800/1900<br>WCDMA1/2/4/5/6/8/19<br>CDMA BC0 BC1 BC10<br>B1.2.3.4.5.7.8.12.13.17.18.19.20.25.26.28.66.34<br>.38.39.40.41 |
| 颜 色<br>Color        | black   | 版 本<br>Edition        | REV:A1   |
| 销 售<br>Salesperson  | Mr.Xie  | 设 计<br>Design         | WUXI   |
| 结 构<br>Structure    | QIN YUN LIN   | 确 认<br>Confirm        |  |
| 日 期<br>Date         | 2023.6.8  | 签字日期<br>Signing Date  |  |

客户确认 Customer confirmation:

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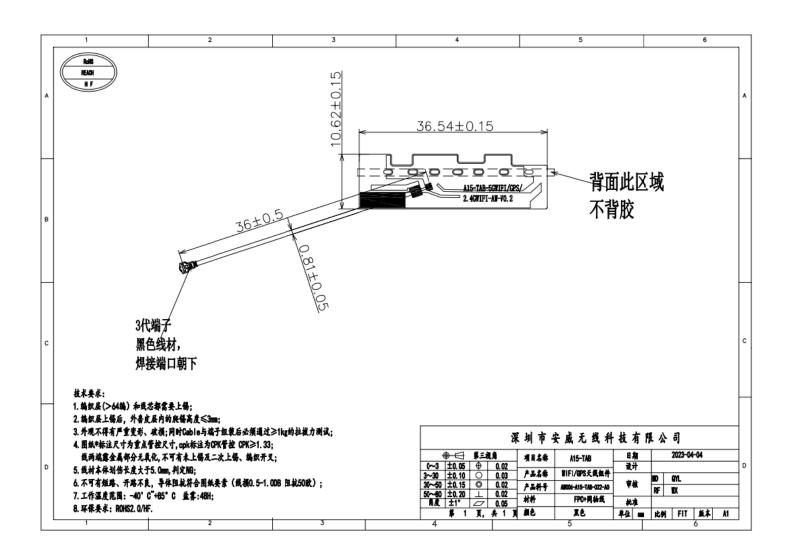
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一、产品规格(Product specification)

The report mainly provides the parameter test of A15 TAB antenna performance. The A13TAB

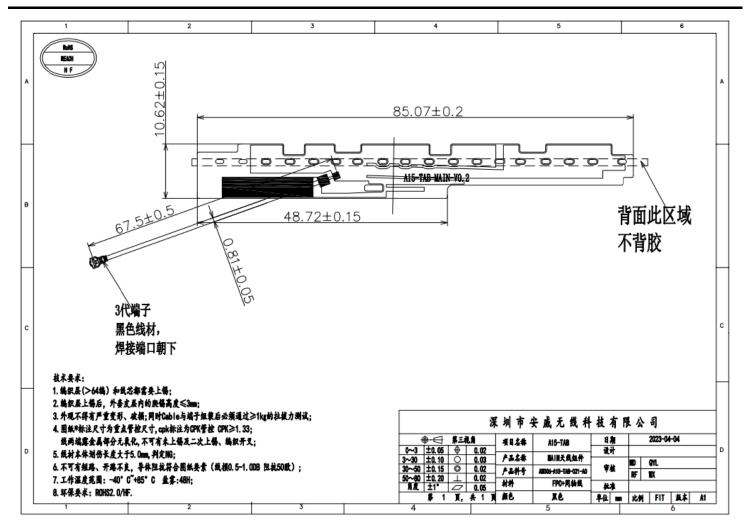


antenna is a 4G antenna. (As shown below)



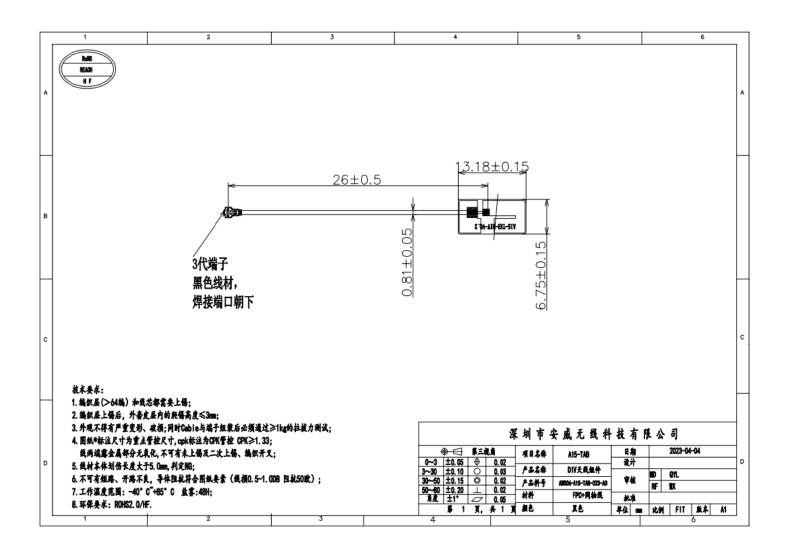
#### **BT&WIFI&GNSS ANT**





#### **Main ANT**





#### **DIV ANT**

- 二、电器性能(Electrical performance)
- 1.规格标准(Specification standard)

The working frequency band of A15 TAB antenna is 699~960MHZ, 1710~2700MHZ, and resonance occurs in this frequency band

The structure of the antenna: FPC



### 三、参数的测试(Parameter test)

#### 1.测试的设置(Test settings)

The connections of the VSWR test setup in turn are:

Handling of test fixtures:

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 the copper tube covered with the choke coil, and then connect to other devices in turn.

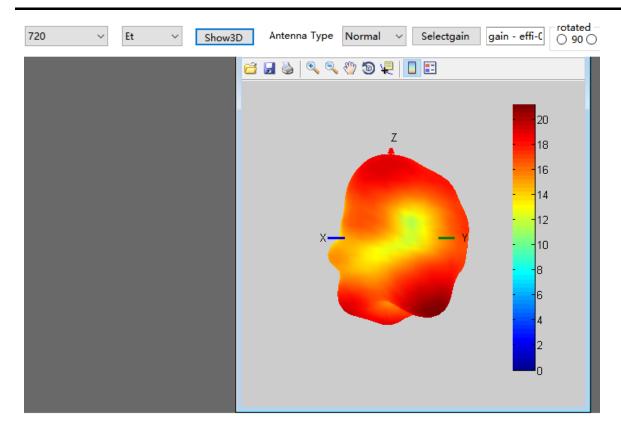
#### Main antenna passive parameters:

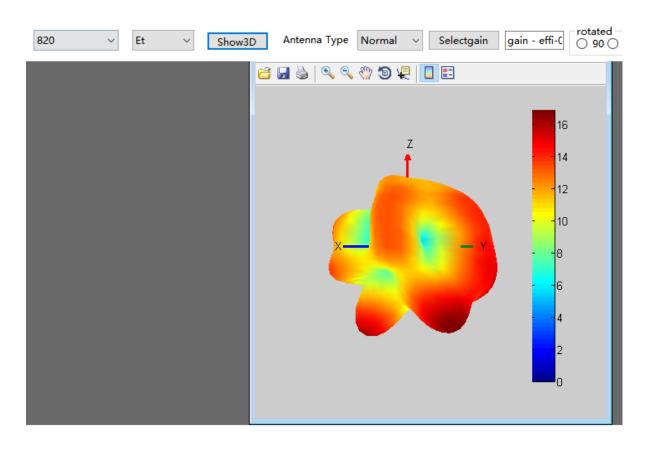
工作频段(Working frequency band): 699~960MHZ, 1710~2700MHZ

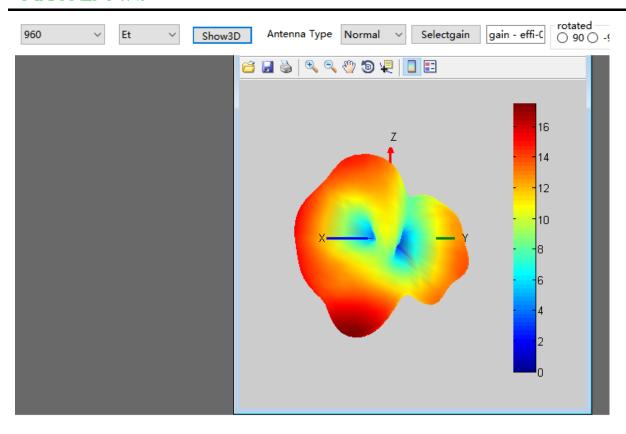
| 2G      | 2/3/5/8  |
|---------|--|
| 3G      | 1/2/4/5  |
| 4G      | B1/2/3/4/5/7/8/12/17/18/19/20/25/26/28/66/34/38/39/40/41 |
| BT/WIFI | 2. 4G+5G   |
| GPS     | 1575. 42MHz  |

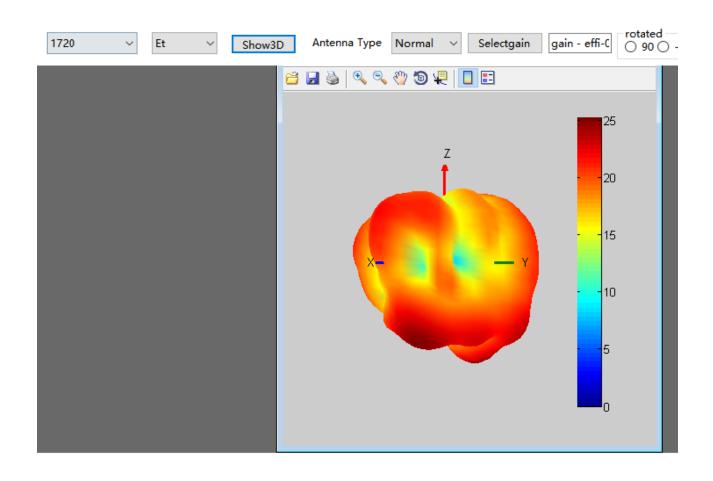


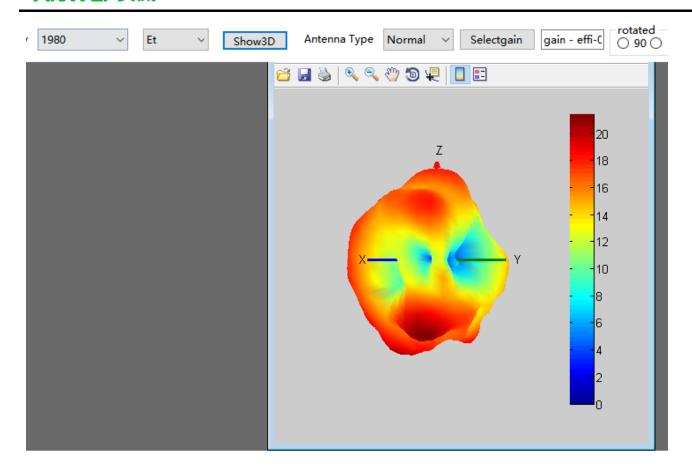
| 频段 Band  | gain 增益<br>(dBi) |         |
|--|------------------|---------|
| LTE-B12/B13/B17/B28                                    | -7.05            | 720MHZ  |
| BC0/BC10/GSM850,WCDMA-B5/B6/B19,LTE-B5/B18/B19/B20/B26 | -5.2             | 820MHZ  |
| GSM900,WCDMA-B8,LTE-B8                                 | -7.5             | 960MHZ  |
| DCS1800,LTE-B3,WCDMA-B4,LTE-B4/B66                     | -0.41            | 1720MHZ |
| BC1,PCS1900,WCDMA-B2,LTE-B2/B25/B39                    | 0.15             | 1980MHZ |
| WCDMA-B1,LTE-B1/B34                                    | 8.0              | 2180NHZ |
| LTE-B7/B38/B41,  | 2.47             | 2680MHZ |
| LTE-B40  | -0.16            | 2380MHZ |
| GPS  | 1.1              | 1575MHZ |
| 2.4G WIFI/BT   | 2.2              | 2450MHZ |
| 5G WIFI  | 0.75             | 5300MHZ |

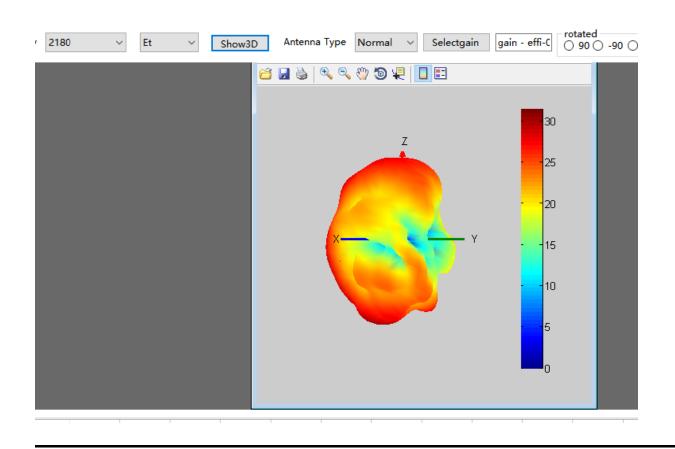


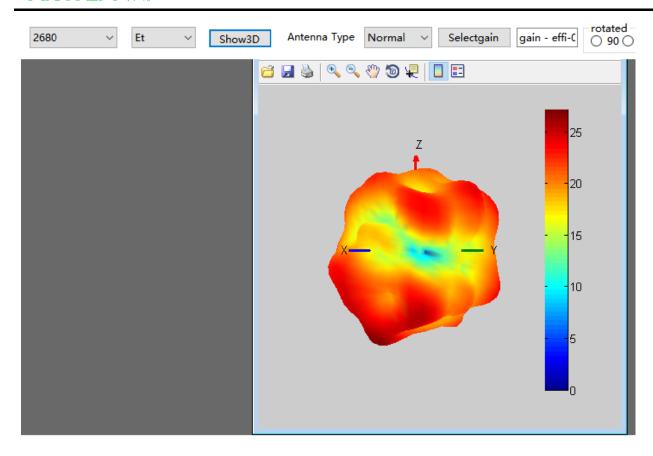


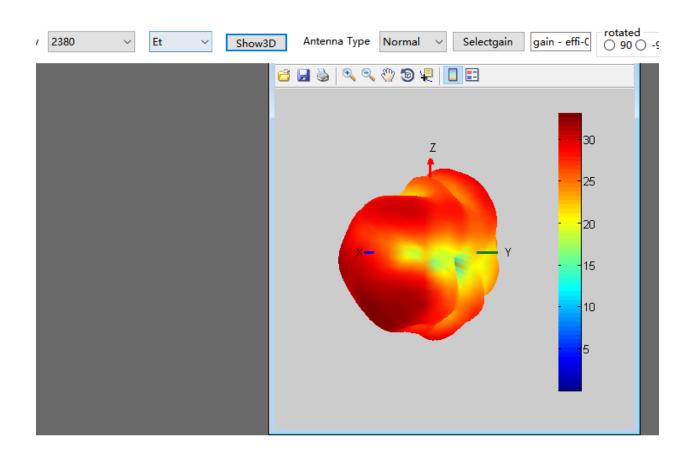








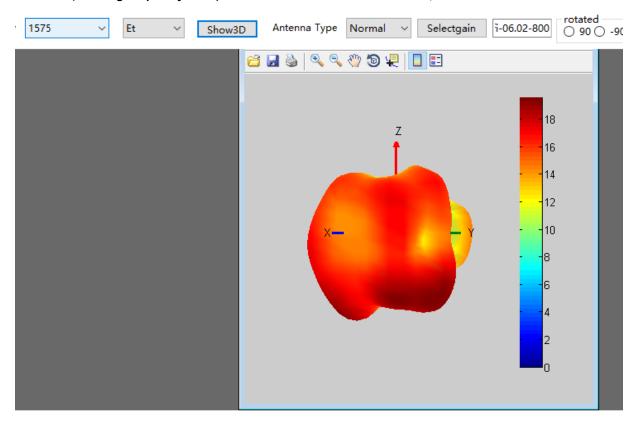


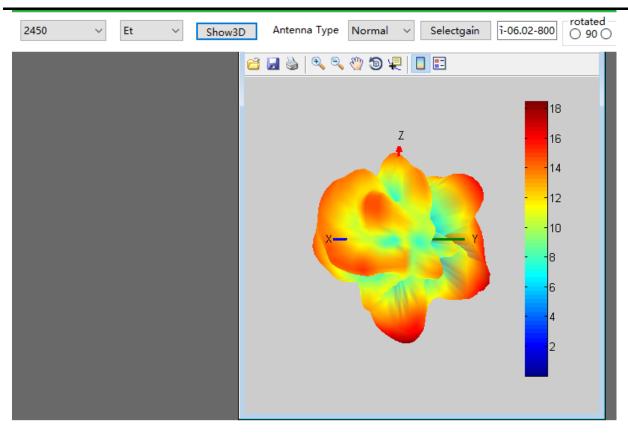


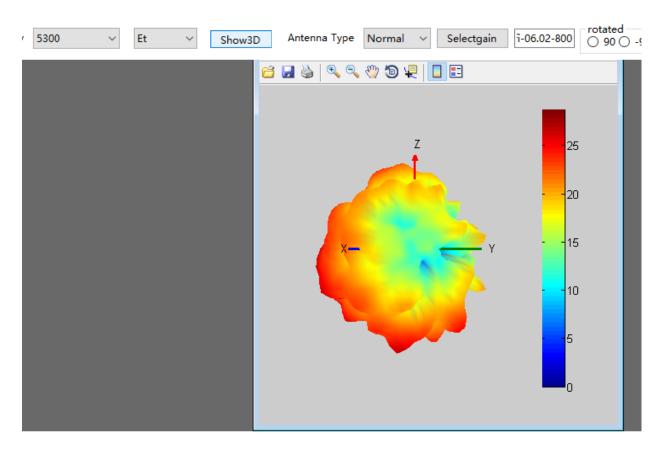


### GPS/WIFI/BT 天线无源参数:

工作频段(Working frequency band): 1560~1580MHZ, 2400~2500MHZ,5180~8525MHZ









#### 2.测试结果(Test result)

everything is normal.

#### 四、有源测试的设置(Active test setup)

The connections of the active test device in turn are:

#### 1.测试的场地(Test site)

AW microwave anechoic chamber: the test frequency range is 400MHz—6GHz, the quiet zone range is 40cm circumference, and the reflectivity is less than -90 dB.

#### 2.测试结果(Test result)

The maximum radiated power and maximum receiving sensitivity reflect the maximum power radiation value and the best receiving performance of the antenna in the entire radiation space. TRP and TIS reflect the average radiation power and average receiving sensitivity of the antenna, that is, reflect the overall receiving performance of the antenna.



The following are the active test results of the main antenna of the A15 Tab Smart Tablet Computer:

### 主天线暗室数据

|         | Channel | TRP (dBm) | TIS (dBm) |   |          |        |        |        |   |         | Channel | TRP (dBm) | TIS (dBm) | _ |
|---------|---------|-----------|-----------|---|----------|--------|--------|--------|---|---------|---------|-----------|-----------|---|
|         | LOW     | 17.38     |           | - |          | LOW    | 14.19  |        | - |         | TO#     | 17.13     |           |   |
| FDD B1  | medium  | 17.34     |           |   | FDD B17  | medium | 14.14  |        |   | FDD B66 | medium  | 17.11     |           |   |
|         | high    | 17.05     | -90.3     | - |          | high   | 14. 21 | -87.4  |   |         | high    | 17. 21    | -88. 5    |   |
|         | LO₩     | 17.12     |           | - |          | LO₩    | 15.46  |        |   |         |         |           |           |   |
| FDD B2  | medium  | 17.32     |           |   | FDD B18  | medium | 15.65  |        |   |         |         |           |           |   |
|         | high    | 17.01     | -90.5     |   |          | high   | 15.54  | -90.5  |   |         |         |           |           |   |
|         | TO#     | 16.16     |           |   |          | LO₩    | 15.64  |        |   |         |         |           |           |   |
| FDD B3  | medium  | 16.06     |           |   | FDD B19  | medium | 15.24  |        |   |         |         |           |           |   |
|         | high    | 16.03     | -90.4     |   |          | high   | 15.64  | -90.6  |   |         |         |           |           |   |
|         | TO#     | 17.35     |           |   |          | LOW    | 15.74  |        |   |         |         |           |           |   |
| FDD B4  | medium  | 17.07     |           |   | FDD B20  | medium | 15.52  |        |   |         |         |           |           |   |
|         | high    | 17.14     | -89.5     |   |          | high   | 15.43  | -89.5  |   |         |         |           |           |   |
|         | LO₩     | 15.54     |           |   |          | LOW    | 17.24  |        |   |         |         |           |           |   |
| FDD B5  | medium  | 15.56     |           |   | FDD B25  | medium | 17.64  |        |   |         |         |           |           |   |
|         | high    | 15.64     | -90.2     |   |          | high   | 17.86  | -87    |   |         |         |           |           |   |
|         | LOW     | 17.4      |           |   |          | LO₩    | 16.33  |        |   |         | TOA     | 17.35     |           |   |
| FDD B7  | medium  | 17.08     |           |   | FDD B26  | medium | 15.46  |        |   | TDD B38 | medium  | 17. 24    |           |   |
|         | high    | 17.03     | -89.2     |   |          | high   | 15.54  | -90.3  |   |         | high    | 17. 24    | -89.0     |   |
|         | TOA     | 14.64     |           |   |          | LO₩    | 13.54  |        |   |         | TO#     | 15. 22    |           | - |
| FDD B8  | medium  | 14.35     |           |   | FDD B28A | medium | 14.24  |        |   | TDD B40 | medium  | 16.4      |           | - |
|         | high    | 14.65     | -89       |   |          | high   | 15.18  | -87.1  |   | .22 210 | high    | 16.08     | -88. 2    |   |
|         | TOA     | 13.25     |           |   |          | LO₩    | 14. 25 |        |   | TDD B41 | LOW     |           |           |   |
| FDD B12 | medium  | 13.64     |           |   | FDD B28B | medium | 15. 43 |        |   |         | medium  | 16.05     | -88. 1    | - |
|         | high    | 13.54     | -87.5     |   |          | high   | 16.14  | -87. 2 |   |         | high    |           |           |   |

### 主天线暗室数据

| GSM 850  | 128 | 24. 02 |        |  |     | LOW    | 17. 35 |        |
|----------|-----|--------|--------|--|-----|--------|--------|--------|
|          | 190 | 23, 54 |        |  | ₩ 1 | medium | 17. 54 |        |
|          | 251 | 23. 56 | -102   |  |     | high   | 17. 34 | -104.5 |
|          | 1   | 22. 31 |        |  |     | LOW    | 16. 57 |        |
| GSM 900  | 62  | 22.50  |        |  | ₩ 2 | medium | 17. 24 |        |
|          | 124 | 22. 31 | -100.2 |  |     | high   | 17.62  | -102.2 |
| DCS 1800 | 512 | 25. 01 |        |  |     | LOW    | 16.3   |        |
|          | 698 | 24.12  |        |  | ₩ 4 | medium | 16. 45 |        |
|          | 885 | 25.1   | -103.1 |  |     | high   | 17. 12 | -103.3 |
|          | 512 | 25. 34 |        |  |     | LOW    | 15. 17 |        |
| PCS 1900 | 661 | 25. 15 |        |  | ₩ 5 | medium | 15. 78 |        |
|          | 810 | 24. 42 | -102.2 |  |     | high   | 15. 11 | -102.5 |
|          |     |        |        |  | ₩ 8 | LOW    | 14. 13 |        |
| Ī        |     |        |        |  |     | medium | 14. 01 |        |
|          |     |        |        |  |     | high   | 14.62  | -100.5 |

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### ← GPS天线实际测试效果:



### ℳWIFI测试效果:

| BAND      |                 | 2. 4GVIFI |         | 5CW1F1 |        |        |  |
|-----------|-----------------|-----------|---------|--------|--------|--------|--|
| CHANNEL.  | low medium high |           | high    | low    | nediun | high   |  |
| TRP(dBm)  | 12. 42          | 12.24     | 12. 1   | 10.54  | 9. 64  | 11. 35 |  |
| TIS (dBm) | -80. 3          | -80. 0    | -79. 86 | -71    | -70. 9 | -71    |  |



#### **Recommendations and Conclusions**

This report is based on the electrical performance of the antenna measured by the mobile phone provided by the customer, please review it carefully.

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