

KC.IA.00499

Antenna Specification

1. Application:

This application shall apply for antenna unit which shall be used such as automotive, conventional communications, smart home, etc..

2. Electrical Specification:

Those specifications were specially defined for customer's model, and all characteristics were measured under the model's handset testing jig .

2-1. Frequency Band:

| Frequency Band | MHz |
|----------------|--------------|
| WiFi | 2400~2500MHz |


2-2. Impedance

50 ohm nominal

2-3. VSWR

2-3-1.Measurement frequency points and VSWR value

| Frequency Band(MHz) | 2400 | 2500 |
|-----------------------|------|------|
| Typical Value: (VSWR) | 1.43 | 1.25 |

| | | |
|---|-----------------|--|
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2-3-4 Measuring Method

1. A 50Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR.
2. Keeping this jig away from metal at least 20 cm

2-3-5 Picture



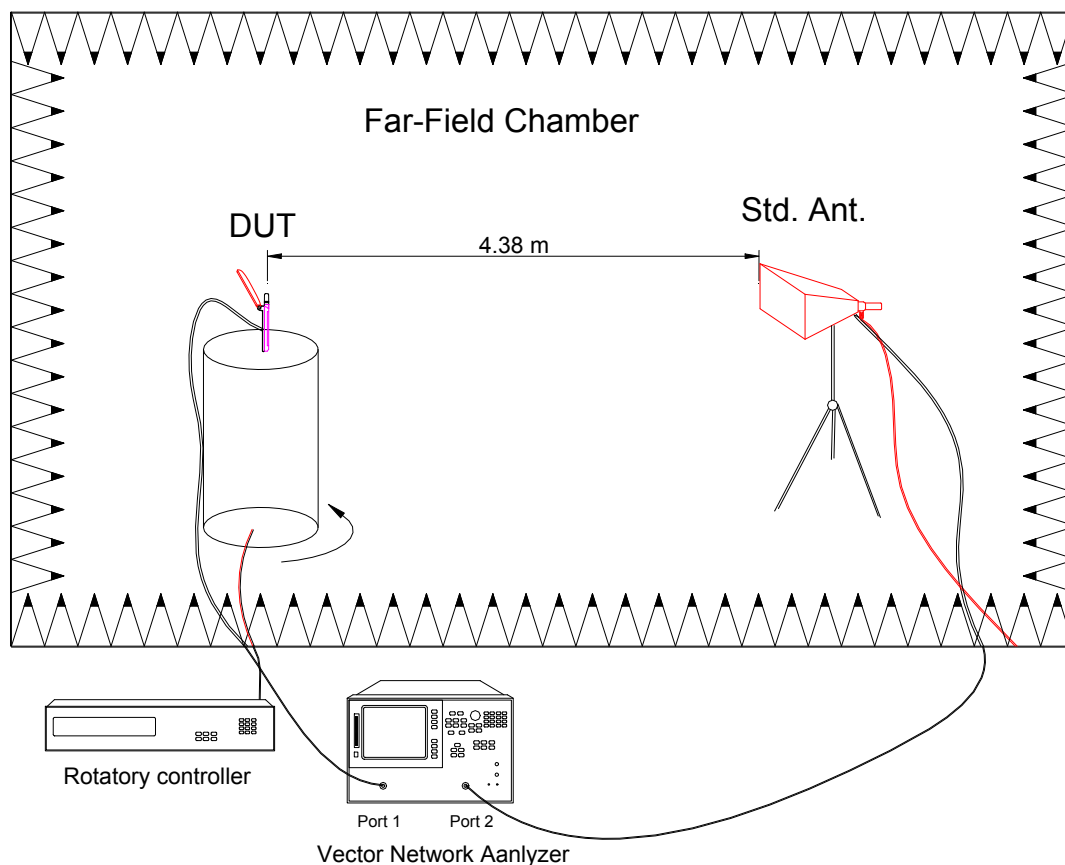
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2-4. Efficiency and Gain


4-5.1 Measure method

1. Using a low loss coaxial cable to link a standard handset jig
2. Fixed this handset jig on chamber's rotator plane
3. Linking jig into network analyzer port and using a probing horn antenna to collect data.
4. Using another standard gain horn antenna to calibrated those data

4-5.2 Chamber definition

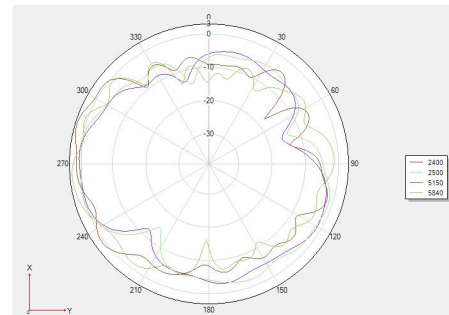
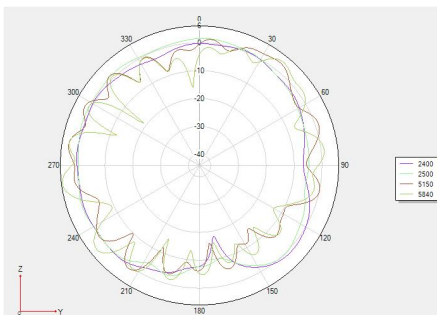
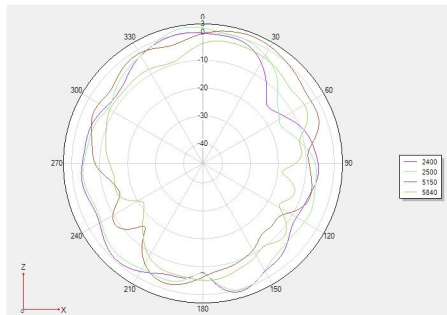
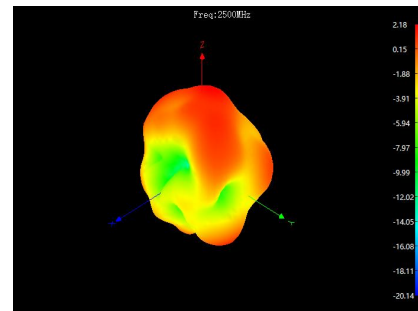
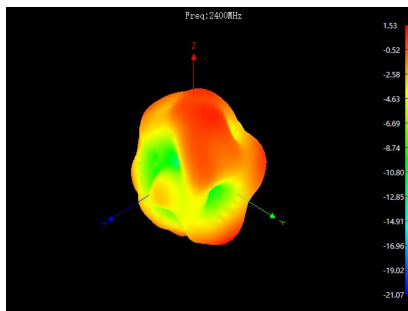


1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quite room region is 40cmx40cmx40cm at the center of rotator
3. The distance between DUT and standard antenna is 4.38 m
4. Probing antenna (9120D horn antenna) and standard gain horn antenna (BBHA9120 LPF 700MHz ~6GHz)

| | | | |
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2-4-1 Efficiency and Gain and 3D Date

| Frequency/Mhz | MaxGain/dBi | Efficiency / % |
|---------------|-------------|----------------|
| 2400 | 1.53 | 53.21 |
| 2410 | 2.6 | 57.81 |
| 2420 | 2.08 | 58.21 |
| 2430 | 2.34 | 56.1 |
| 2440 | 1.83 | 54.58 |
| 2450 | 1.68 | 54.08 |
| 2460 | 1.57 | 53.46 |
| 2470 | 1.89 | 54.33 |
| 2480 | 2.05 | 57.94 |
| 2490 | 2.22 | 59.16 |
| 2500 | 2.18 | 61.52 |



2-4-2 Active test:

| Band | Channel | Frequency | 参考标准 | 1# | 5# |
|------------------|---------|-----------|------|--------|--------|
| WIFI_B (11M) | 1 | 2412 | >14 | 16.4 | 17.15 |
| WIFI_B (11M) | 6 | 2437 | | 17.14 | 17.33 |
| WIFI_B (11M) | 11 | 2462 | | 16.59 | 17.18 |
| WIFI_B (11M) | 1 | 2412 | <-81 | -85.34 | -81.56 |
| WIFI_B (11M) | 6 | 2437 | | -85.41 | -84.05 |
| WIFI_B (11M) | 11 | 2462 | | -85.69 | -85.11 |
| WIFI_G (54M) | 1 | 2412 | >12 | 12.83 | 13.36 |
| WIFI_G (54M) | 6 | 2437 | | 13.26 | 13.69 |
| WIFI_G (54M) | 11 | 2462 | | 13.05 | 13.25 |
| WIFI_G (54M) | 1 | 2412 | <-71 | -71.32 | -70.02 |
| WIFI_G (54M) | 6 | 2437 | | -72.23 | -71.34 |
| WIFI_G (54M) | 11 | 2462 | | -72.71 | -71.73 |
| WIFI_N_ISM (65M) | 1 | 2412 | >11 | 12.79 | 13.45 |
| WIFI_N_ISM (65M) | 6 | 2437 | | 13.52 | 14.06 |
| WIFI_N_ISM (65M) | 11 | 2462 | | 13.01 | 13.43 |
| WIFI_N_ISM (65M) | 1 | 2412 | <-67 | -66.34 | -64.53 |
| WIFI_N_ISM (65M) | 6 | 2437 | | -67.06 | -66.2 |
| WIFI_N_ISM (65M) | 11 | 2462 | | -67.22 | -66.42 |

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X=± X.X=± X.XX=±

ANGLES=± HOLEDIA=±

SCALE :

UNIT : mm

DRAWN BY: LI

CHECKED BY: YS

DESIGNED BY: De wen

APPROVED BY: YS

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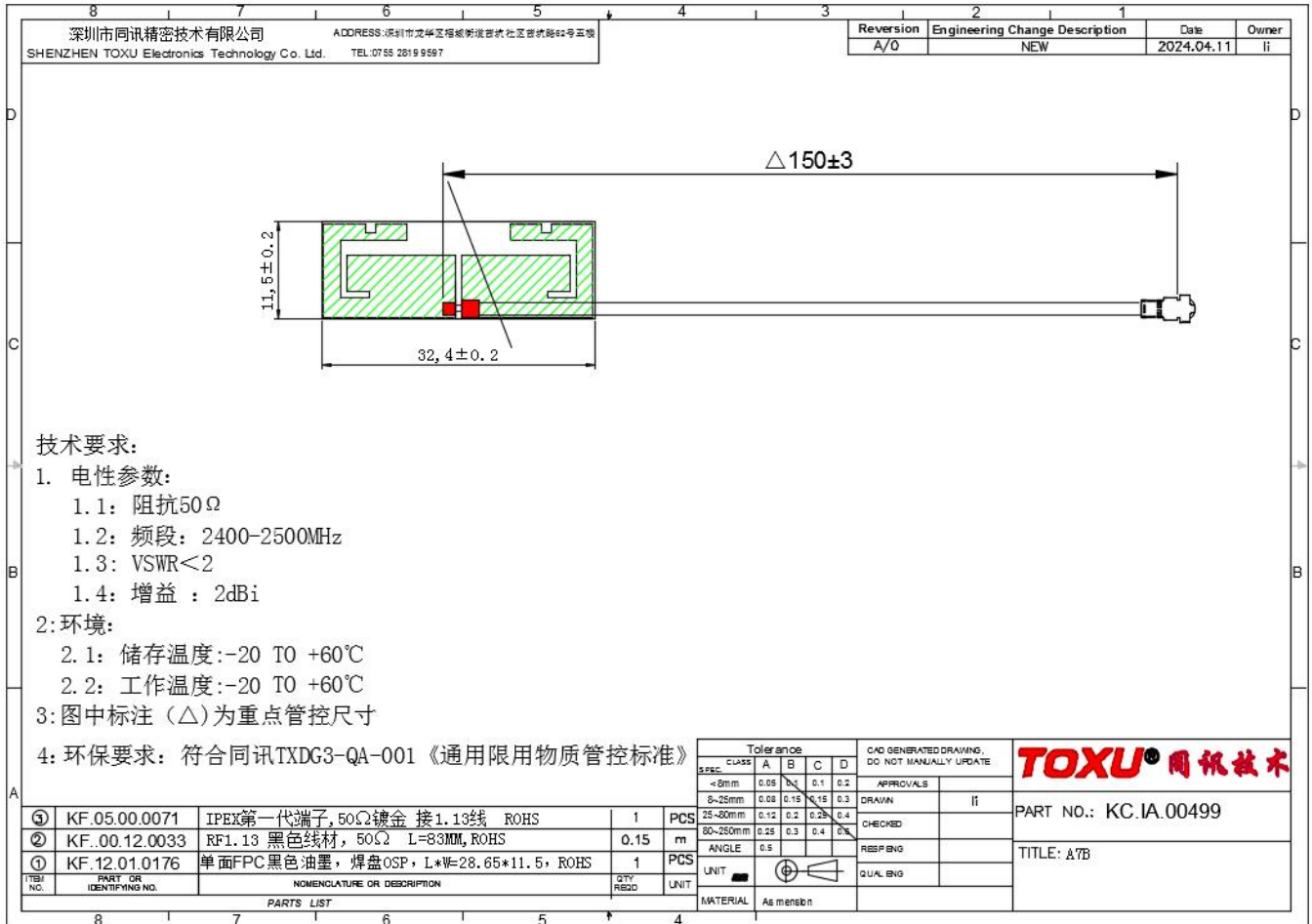
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3. Mechanical Specification:

3-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing



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4.Packaging specification:

Product number: xxxxx

Product model: xxxxx

一、Label requirements:

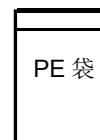
| | | | |
|-----------------|---------|--------------|-------|
| Customer | xxx | | |
| supplier | xxxxx | | |
| Material coding | xx | | |
| Product model | xx | | |
| Number | XXX PCS | Factory date | X X X |
| Remarks | | | |

二、Boxing:

Job description:

1. Inner packaging:

XXpcs A bag

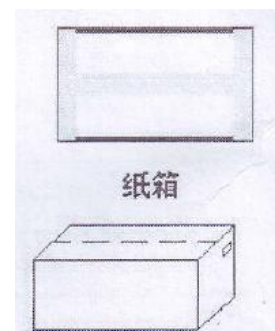


2. External packaging:

Xx PCS ;

3. Matters needing attention:

- Whether to add partition and pearl cotton;
- Label attachments, such as ROHS, etc.;



UNLESS OTHER SPECIFIED TOLERANCES ON :
 $X=\pm$ $X.X=\pm$ $X.XX=\pm$
 ANGLES $=\pm$ HOLEDIA $=\pm$

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