

# KC.GA.00083 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:

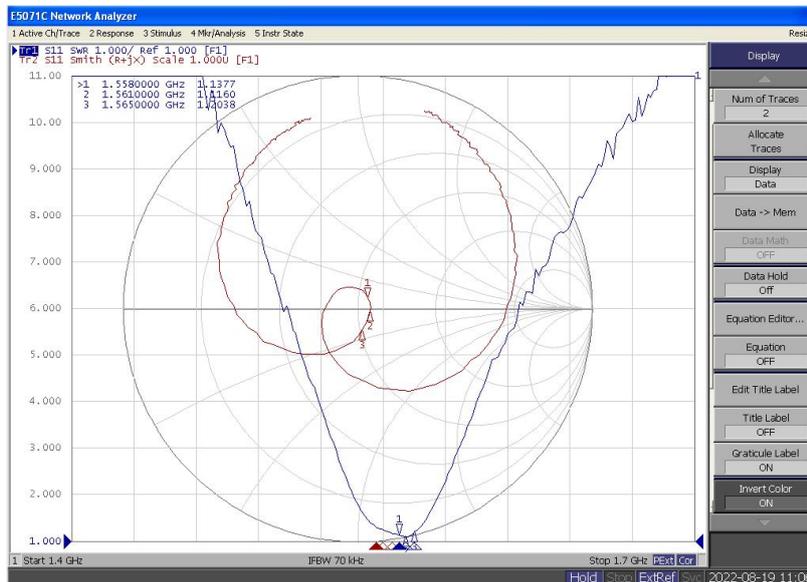
| Frequency Band | MHz            |
|----------------|----------------|
| B1+L+S         | 1561/1614/2491 |

### 2-2. Impedance

50 ohm nominal

### 2-4. VSWR---B1

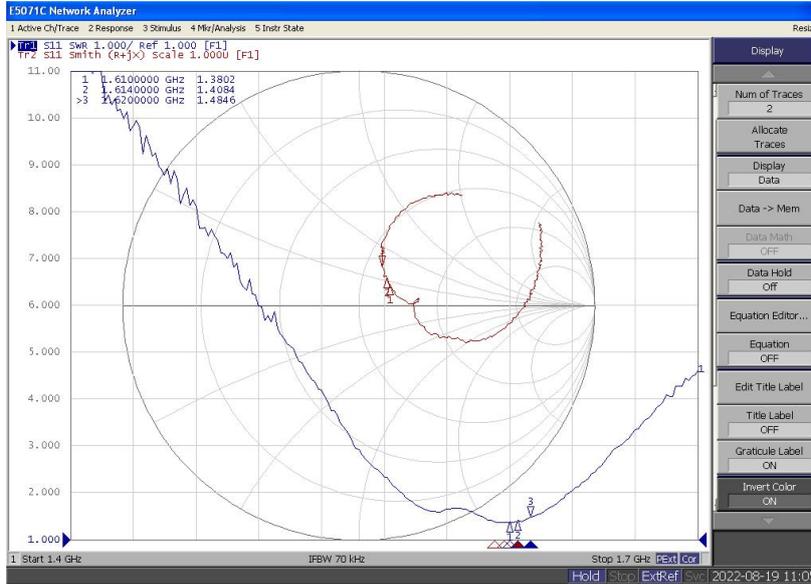
| Frequency Band(MHz)   | 1558 | 1561 | 1565 |
|-----------------------|------|------|------|
| 2-3-3. Typical Value: | 1.13 | 1.11 | 1.2  |



|  |                        |  |                                  |
|--|------------------------|--|----------------------------------|
| UNLESS OTHER SPECIFIED TOLERANCES ON :           |                        | <b>TOXU®</b><br>同讯技术   | <b>TOXU TECHNOLOGY CO., LTD.</b> |
| <b>X=±</b>                                       | <b>X.X=±</b>           |  |                                  |
| <b>ANGLES=±</b>                                  | <b>HOLEDIA=±</b>       | THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF KINGRF TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION |                                  |
| <b>SCALE :</b>                                   | <b>UNIT : mm</b>       |  |                                  |
| <b>DRAWN BY: LI</b>                              | <b>CHECKED BY: YS</b>  |  |                                  |
| <b>DESIGNED BY: De wen</b>                       | <b>APPROVED BY: YS</b> |  |                                  |
| <b>TITLE : KC.GA.00083 Antenna Specification</b> |                        |  | <b>SPEC REV.</b>                 |
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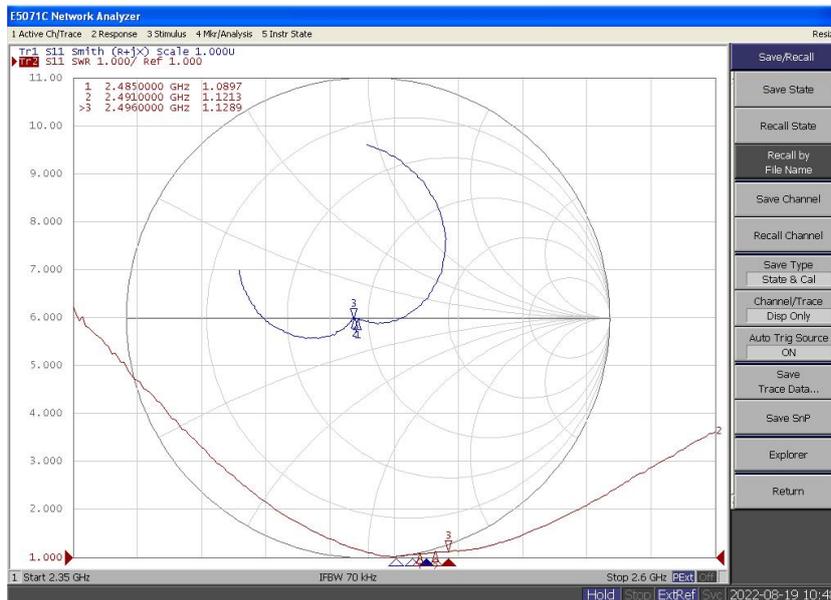
### VSWR---L

|                       |      |      |      |
|-----------------------|------|------|------|
| Frequency Band(MHz)   | 1610 | 1614 | 1620 |
| 2-3-3. Typical Value: | 1.38 | 1.4  | 1.48 |



### VSWR---S

|                       |      |      |      |
|-----------------------|------|------|------|
| Frequency Band(MHz)   | 2485 | 2491 | 2496 |
| 2-3-3. Typical Value: | 1.08 | 1.12 | 1.12 |



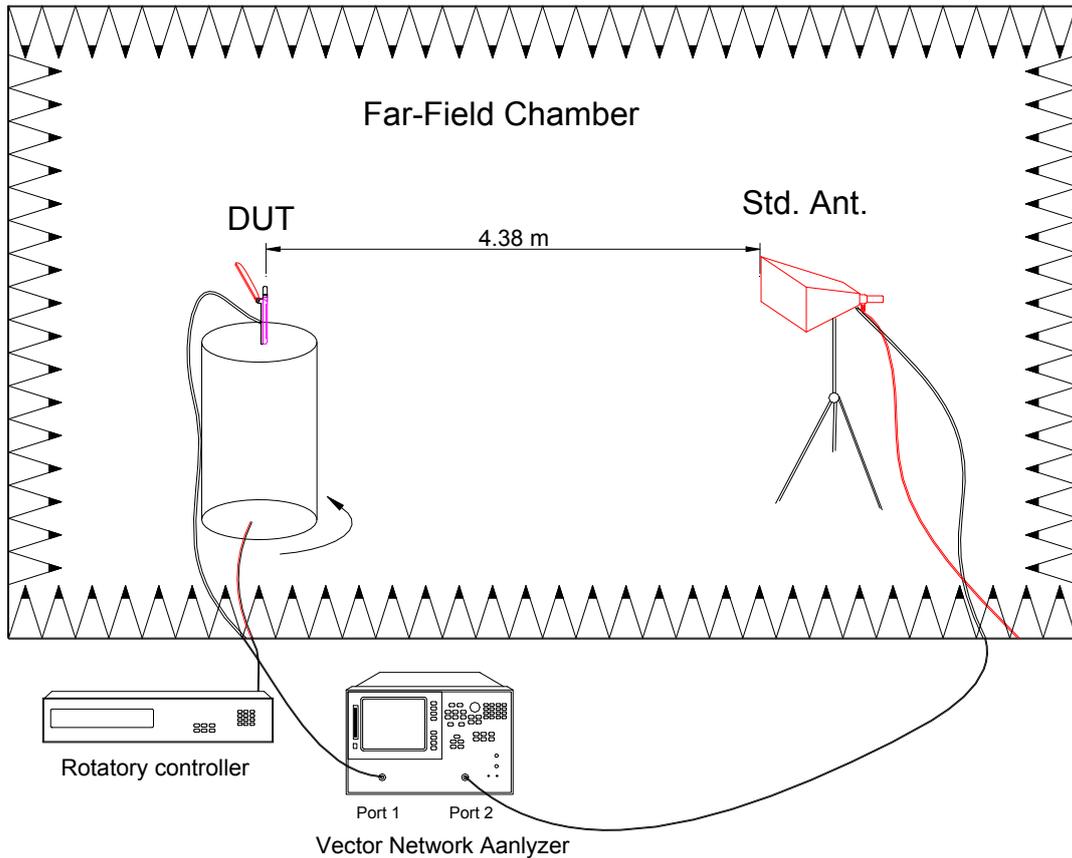
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| <b>ANGLES=±</b>                                  | <b>HOLEDIA=±</b>       |                      |  |
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|  |                        |                      | <b>P0</b>  |

## 2-5. Efficiency and Gain

### 2-5.1 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

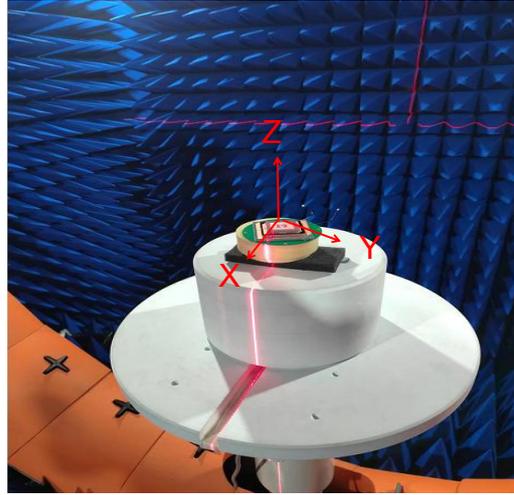
### 2-5.2 Chamber definition



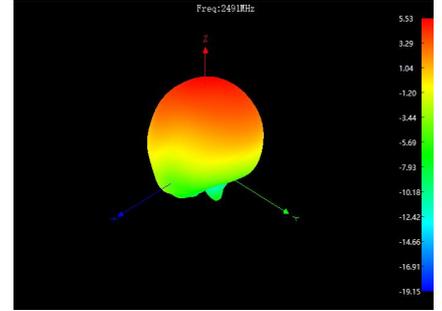
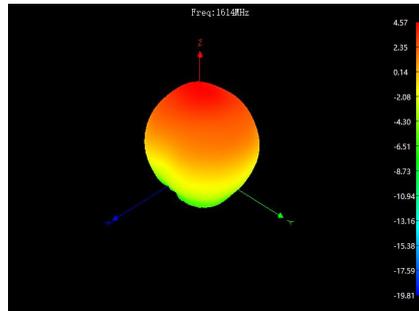
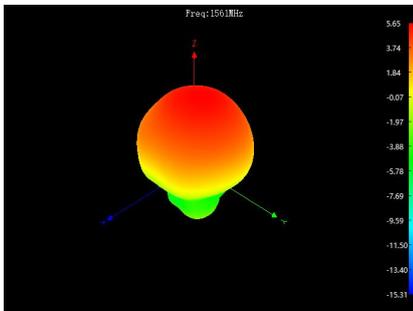
1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quiet room region is 40cmx40cmx40cm at the center of rotator
3. The distance between DUT and standard antenna is 4.38 m
4. Probing antenna (9120D horn antenna) and standard gain horn antenna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

|  |                        |                      |                                  |
|--|------------------------|----------------------|----------------------------------|
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| <b>SCALE :</b>                                   | <b>UNIT : mm</b>       |                      |                                  |
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## 2-5-6 Gain



| Frequency/MHz | MaxGain/dBi | Frequency/MHz | MaxGain/dBi | Frequency/MHz | MaxGain/dBi |
|---------------|-------------|---------------|-------------|---------------|-------------|
| 1558          | 5.18        | 1611          | 4.42        | 2488          | 5.47        |
| 1559          | 5.35        | 1612          | 4.49        | 2489          | 5.55        |
| 1560          | 5.56        | 1613          | 4.54        | 2490          | 5.64        |
| 1561          | 5.65        | 1614          | 4.57        | 2491          | 5.53        |
| 1562          | 5.72        | 1615          | 4.59        | 2492          | 5.47        |
| 1563          | 5.74        | 1616          | 4.5         | 2493          | 5.45        |
| 1564          | 5.65        | 1617          | 4.48        | 2494          | 5.46        |
| 1565          | 5.58        | 1618          | 4.48        | 2495          | 5.5         |

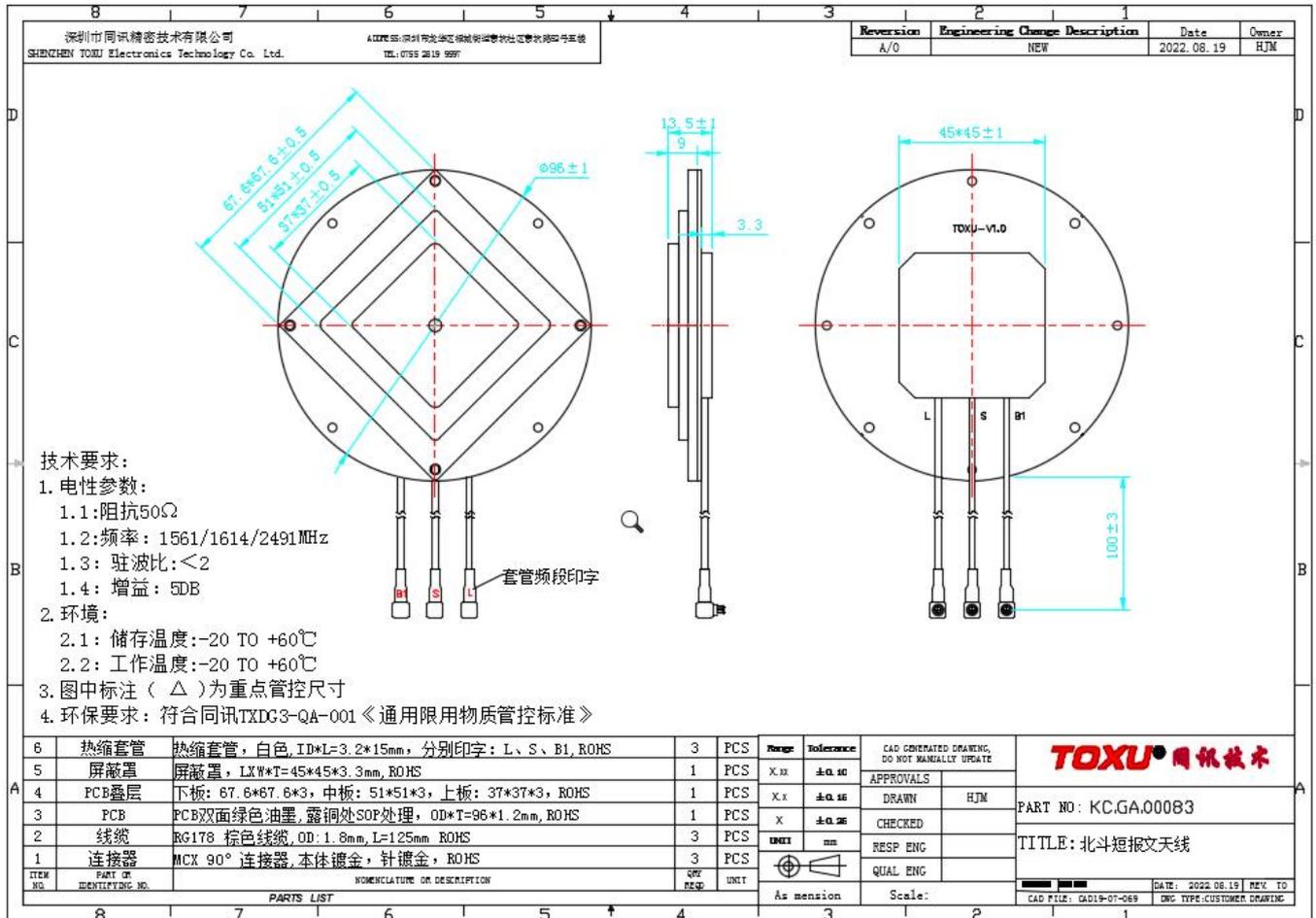


|   |                 |                      |                                  |
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| $X = \pm$                                 | $X.X = \pm$     |                      |                                  |
| ANGLES = $\pm$                            |                 | HOLEDIA = $\pm$      |                                  |
| SCALE :                                   | UNIT : mm       |                      |                                  |
| DRAWN BY: LI                              | CHECKED BY: YS  |                      |                                  |
| DESIGNED BY: De wen                       | APPROVED BY: YS |                      |                                  |
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|   |                 |                      | P0                               |

### 3. Mechanical Specification:

#### 3-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing

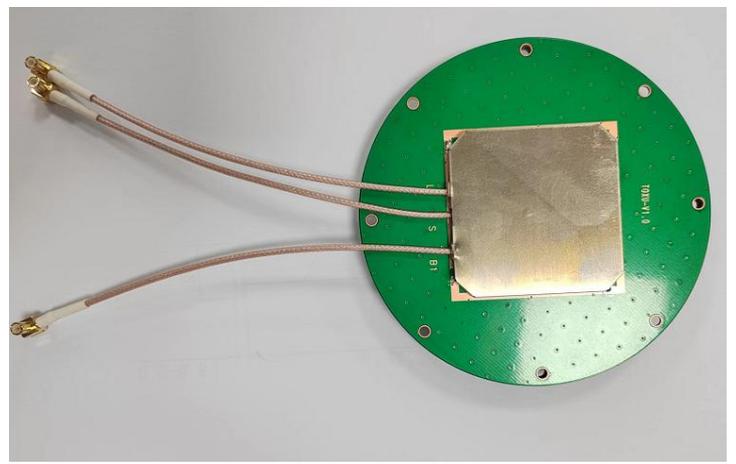
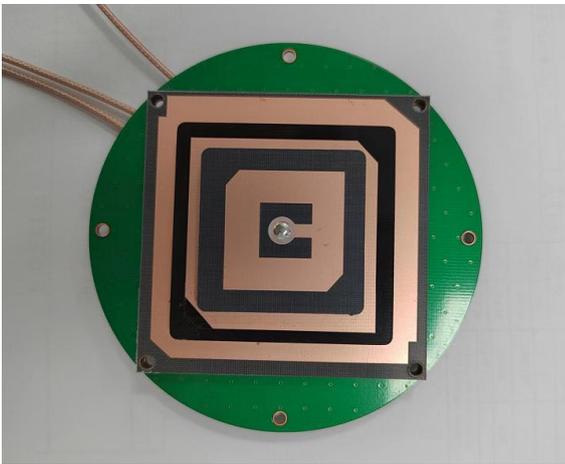


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|   |                 | P0   |

3-2 Connector:MCX



3-3 Product picture

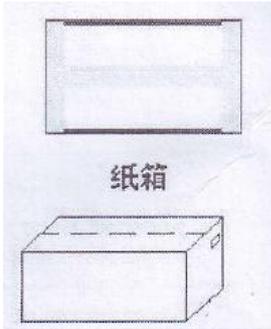


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| <b>TITLE : KC.GA.00083 Antenna Specification</b> |                        | <table border="1"> <tr> <td><b>SPEC REV.</b></td> </tr> <tr> <td><b>P0</b></td> </tr> </table>   | <b>SPEC REV.</b> | <b>P0</b> |
| <b>SPEC REV.</b>                                 |                        |  |                  |           |
| <b>P0</b>  |                        |  |                  |           |

## 4 .Packaging specification:

|   |         |                     |       |
|---|---------|---------------------|-------|
| <b>Product number: xxx</b>                    |         |                     |       |
| <b>Product model: xxx</b>                     |         |                     |       |
| <b>一、 Label requirements:</b>                 |         |                     |       |
| <b>Customer</b>                               | xxx     |                     |       |
| <b>supplier</b>                               | xxxxxx  |                     |       |
| <b>Material coding</b>                        | xx      |                     |       |
| <b>Product model</b>                          | xx      |                     |       |
| <b>Number</b>                                 | XXX PCS | <b>Factory date</b> | X X X |
| <b>Remarks</b>                                |         |                     |       |
| <b>二、 Boxing:</b>                             |         |                     |       |
| <b>Job description:</b>                       |         |                     |       |
| <b>1. Inner packaging:</b>                    |         |                     |       |
| XXpcs A bag                                   |         |                     |       |
| <b>2. External packaging:</b>                 |         |                     |       |
| Xx PCS ;                                      |         |                     |       |
| <b>3. Matters needing attention:</b>          |         |                     |       |
| a. Whether to add partition and pearl cotton; |         |                     |       |
| b. Label attachments, such as ROHS, etc.;     |         |                     |       |

PE 袋



纸箱

|  |                        |  |
|--|------------------------|--|
| UNLESS OTHER SPECIFIED TOLERANCES ON :<br>$X = \pm$ $X.X = \pm$ $X.XX = \pm$<br><b>ANGLES</b> = $\pm$ <b>HOLEDIA</b> = $\pm$ |                        | <br><b>TOXU TECHNOLOGY CO., LTD.</b>  |
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