### KC.DA.00159

# **Antenna Specification**

### 1. Application:

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

# 1. 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
5G	690~960/1700~5000

### 2-2. Impedance

50 ohm nominal

### 2-3. VSWR

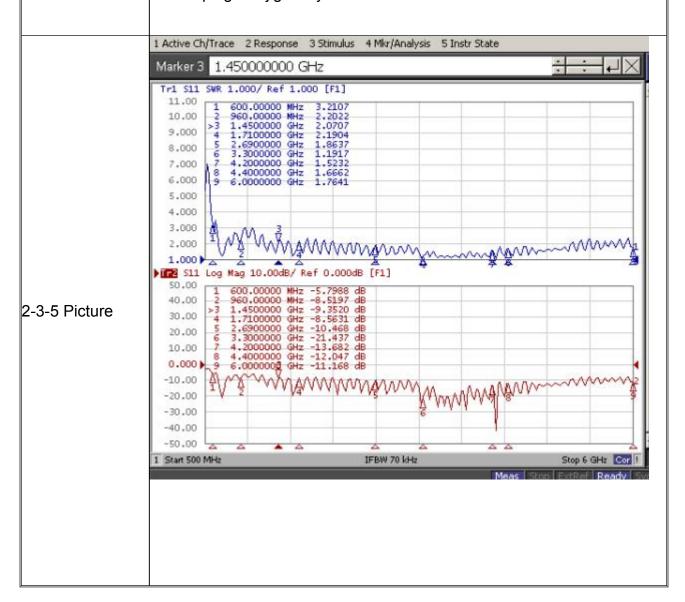
# 2-3-1.Measurement frequency points and VSWR value

Frequency Band(MHz)	690	960	1710	3300	5000
2-3-3. Typical Value:	3.2	2.2	2.1	1.2	1.9

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### 2-3-4 Measuring Method

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



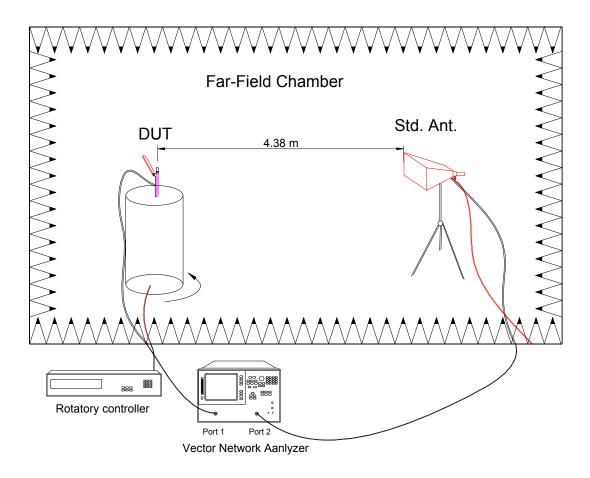
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### 2-4. Efficiency and Gain

### 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

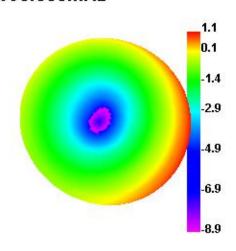


- 1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
- 2. The quite room region is 40cmx40cmx40cm at the center of rotator
- 3. The distance between DUT and standard antenna is 4.38 m
- Probing antenna (9120D horn antenna) and standard gain horn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

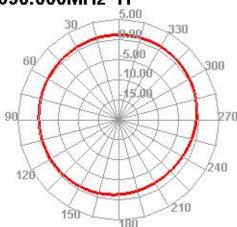
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Frequency Band(MHz)	690-960	1710-2700	2700-3800	3800-5000
Efficiency (%)	>45	>50	>50	>45
Gain (dBi)	>2	>3	>3	>2.5

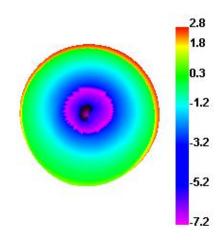
### 690.000MHz



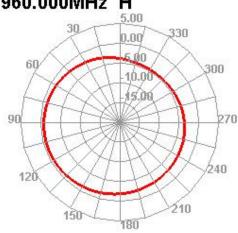




### 960.000MHz



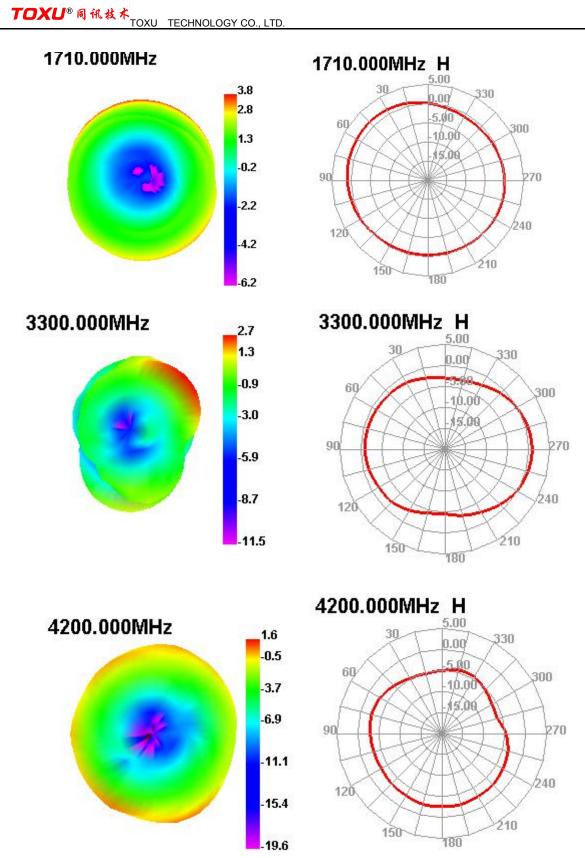
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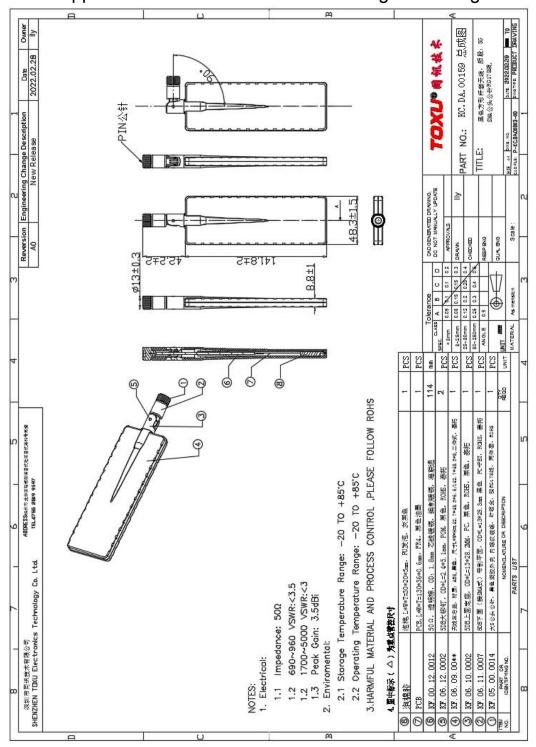
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# 3. Mechanical Specification:

3-1. Mechanical Configuration (Unit: mm) The appearance of the antenna is according to drawing



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# 3-2. Connector appearance:

SMA-PLUG

# 3-3. Product photos



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# **4.PACKING INSTRUCTION**

# - labeling requirement :

Buyer	Xx			
Supplier		DongGuan KingRF ELECTRONICS TECHNOLOGY CO.,LTD		
Purchase No.	Xx			
Material Code	Xx			
Product No.			12	
Quantity/PCS	XXX PCS	Date of production	XXXX/XX/XX	
Remark		- \$1		

二、Packing requirement:



1. inner packing:

Product XX PCS Put in a PE bag;

2. external packing:

Xx PCS Put in a carton:

3. matters need attention:



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