

KC.IA.00252 (Thinkscan SD)

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
WIFI/BT	2400-2500/5150-5850

2-2. Impedance

50 ohm nominal

2-3. VSWR

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

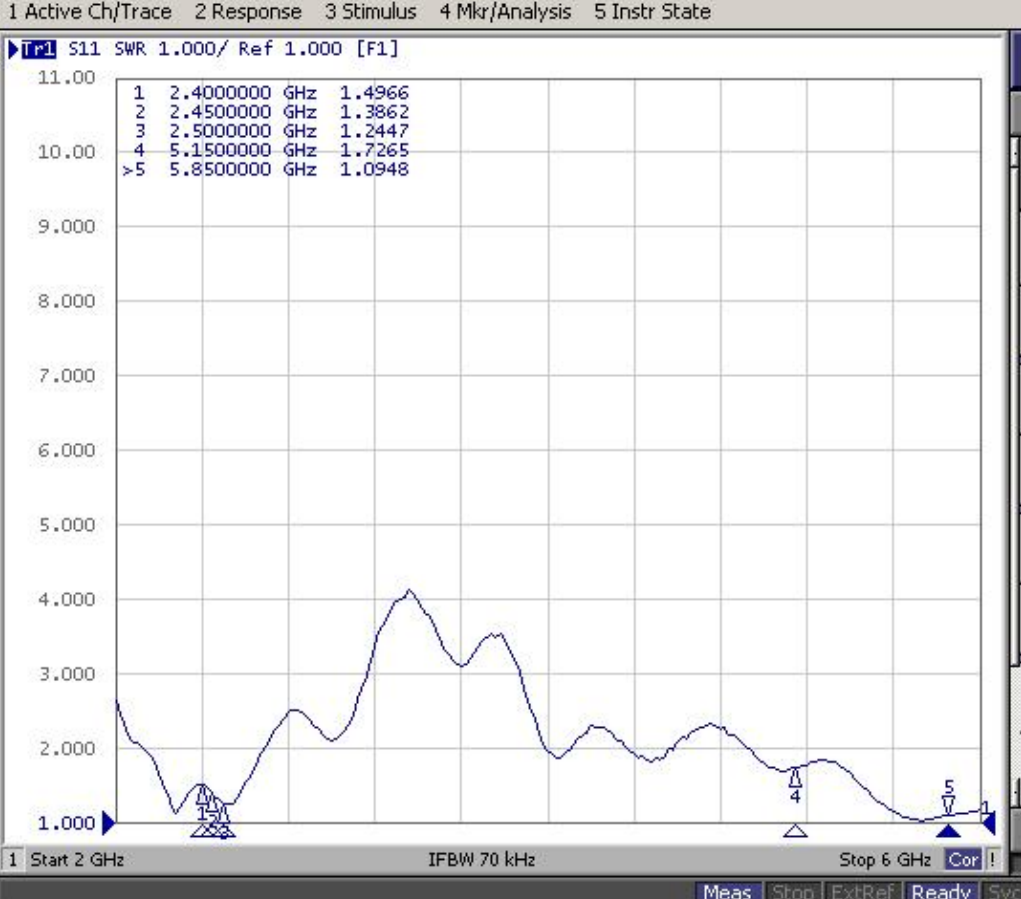
Frequency Band(MHz)	2400	2450	2500	5150	5850
2-3-3. Typical Value:	1.49	1.38	1.24	1.72	1.09

2-3-2. VSWR

Frequency Band(MHz)	2400	2450	2500	5150	5850
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2-3-3. Typical Value:	≤ 2	≤ 2	≤ 2	≤ 2	≤ 2
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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	 <table border="1"> <thead> <tr> <th>Frequency (GHz)</th> <th>SWR</th> </tr> </thead> <tbody> <tr> <td>2.400000</td> <td>1.4966</td> </tr> <tr> <td>2.450000</td> <td>1.3862</td> </tr> <tr> <td>2.500000</td> <td>1.2447</td> </tr> <tr> <td>5.150000</td> <td>1.7265</td> </tr> <tr> <td>5.850000</td> <td>1.0948</td> </tr> </tbody> </table>	Frequency (GHz)	SWR	2.400000	1.4966	2.450000	1.3862	2.500000	1.2447	5.150000	1.7265	5.850000	1.0948
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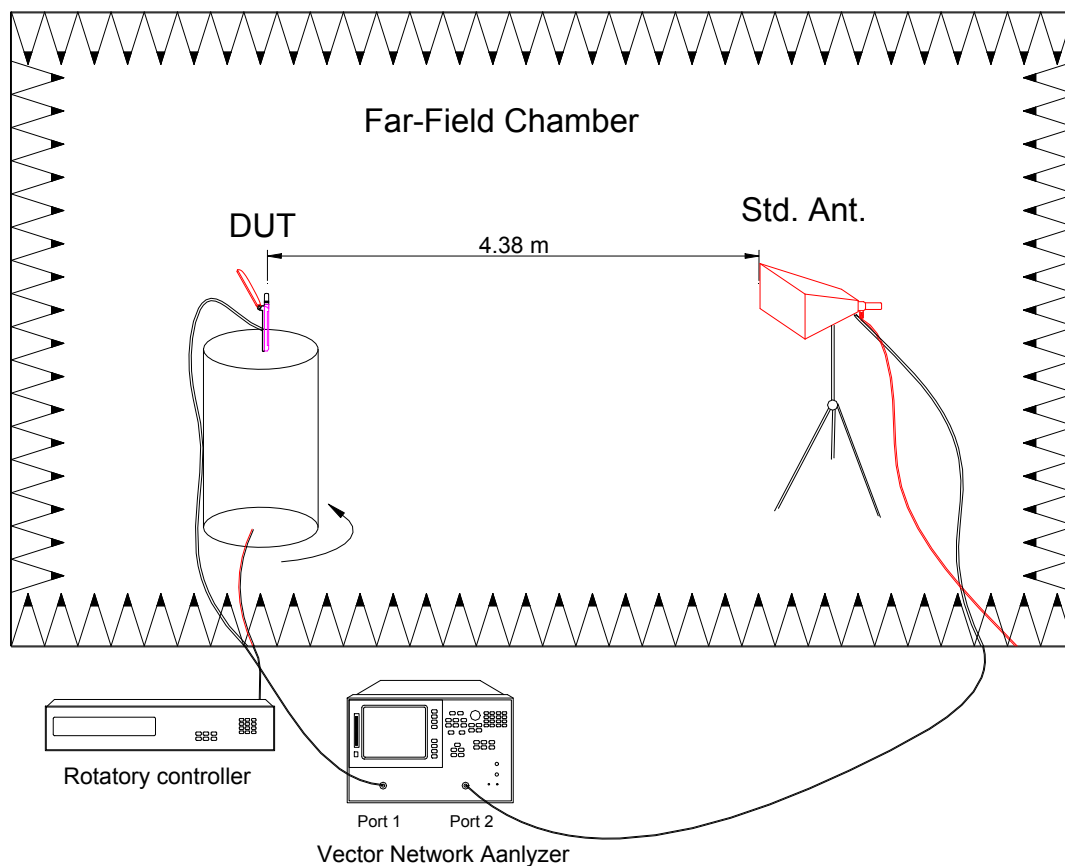
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2-4. Efficiency and Gain

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

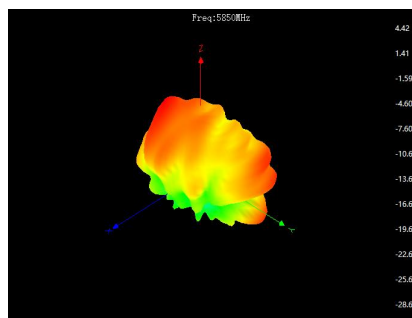
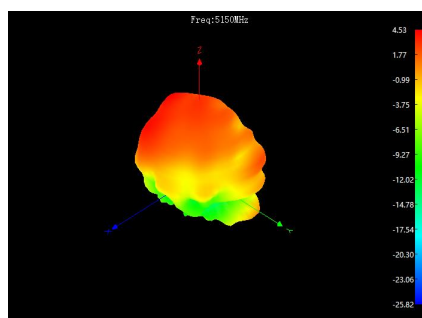
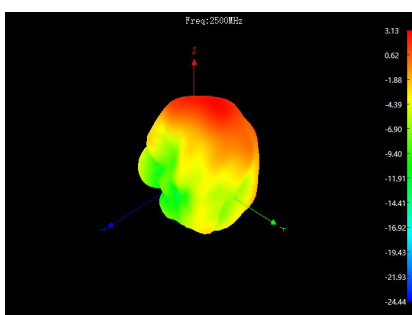
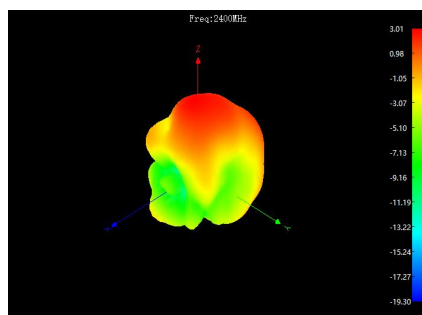


1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quiet room region is 40cmx40cmx40cm at the center of rotator
3. The distance between DUT and standard antenna is 4.38 m
4. Probing antenna (9120D horn antenna) and standard gain horn antenna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

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2-4-1 Efficiency and Gain

Frequency/MHz	MaxGain/dBi	Efficiency / %
2400	0.97	52.98
2450	0.81	48.99
2500	1.0	52.11
5150	3.4	51.64
5350	4.06	55.21
5510	4.1	48.19
5710	4.55	47.21
5850	4.42	50.12

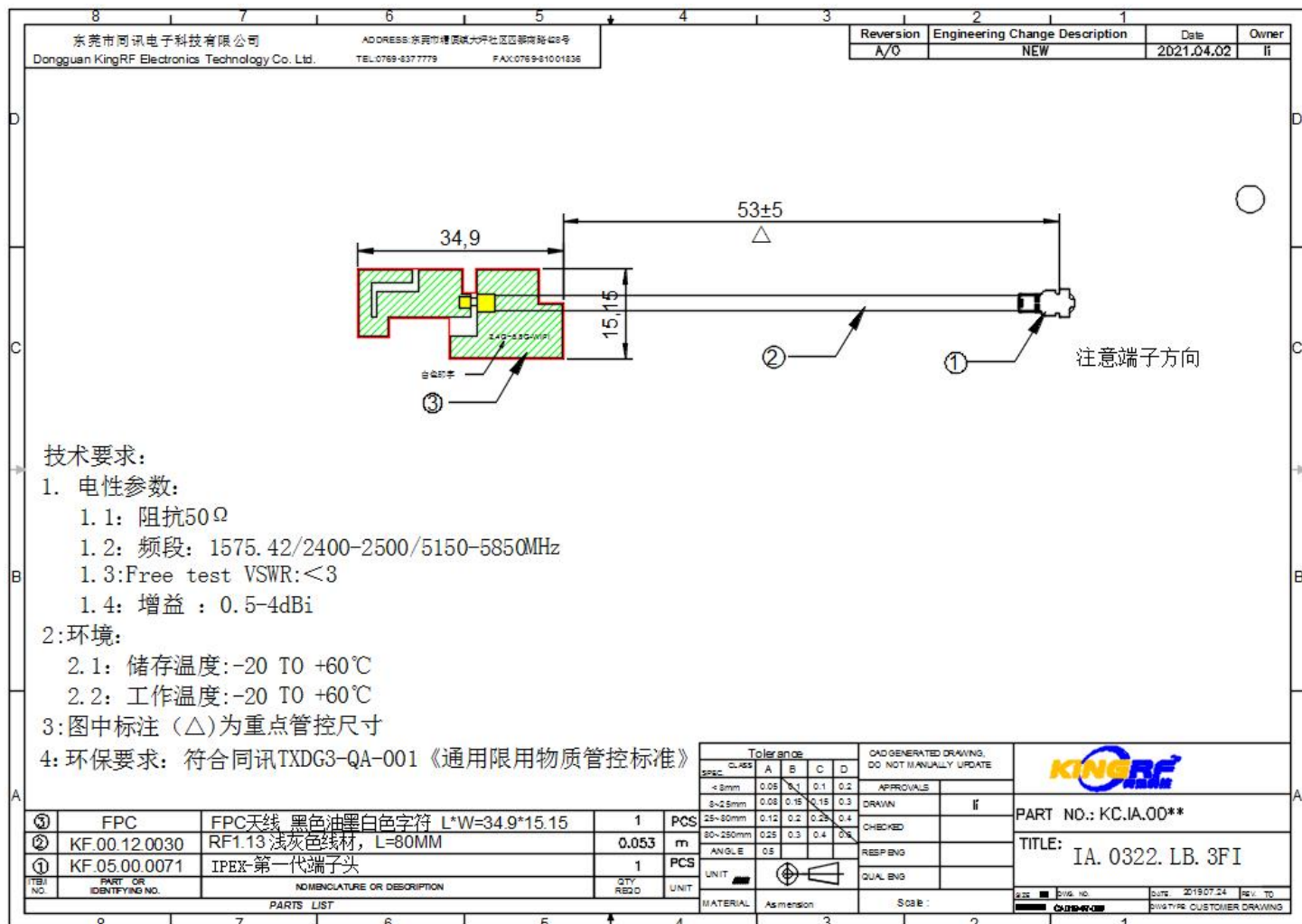


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3. Mechanical Specification:

3-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing



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3-2. Connector appearance: IPEX-1

3-3.Product Image:



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4.Packaging specification:

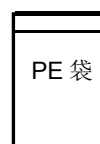
Product number: xxxxx			
Product model: xxxxx			
一、Label requirements:			
Customer	xxx		
supplier	xxxxx		
Material coding	xx		
Product model	xx		
Number	XXX PCS	Factory date	X X X
Remarks			

二、Boxing:

Job description:

1. Inner packaging:

XXpcs A bag

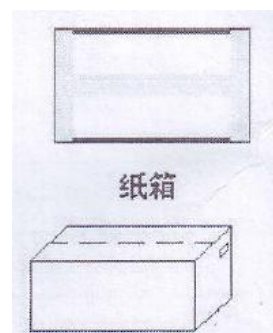


2. External packaging:

Xx PCS ;

3. Matters needing attention:

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



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