

KC.IA.00507

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/BT	2400-2500/5150-5850MHz

2-2. Impedance

50 ohm nominal

2-3. VSWR

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

Frequency Band(MHz)	2400	2500	5150	5850
Typical Value: (VSWR)	1.9	1.6	1.4	1.2

UNLESS OTHER SPECIFIED TOLERANCES ON :			TOXU TECHNOLOGY CO., LTD.
X=±	X.X=±		
ANGLES=±		HOLEDIA=±	
SCALE :	UNIT : mm	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DRAWN BY: LI	CHECKED BY: YS		
DESIGNED BY: De wen	APPROVED BY: YS		
TITLE : KC.IA.00507 Antenna Specification			SPEC REV.
			P0

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	F5071C Network Analyzer 1 Active Ch/Trace 2 Response 3 Stimulus 4 Mhz/Analysis 5 Instr State ▶ [F1] S11 SWR 1.000/ Ref 1.000 [F1] <table><tr><td>1</td><td>2.400000</td><td>GHZ</td><td>1.9783</td></tr><tr><td>2</td><td>2.500000</td><td>GHZ</td><td>1.6240</td></tr><tr><td>3</td><td>5.150000</td><td>GHZ</td><td>1.4831</td></tr><tr><td>>4</td><td>5.850000</td><td>GHZ</td><td>1.2256</td></tr></table>	1	2.400000	GHZ	1.9783	2	2.500000	GHZ	1.6240	3	5.150000	GHZ	1.4831	>4	5.850000	GHZ	1.2256
1	2.400000	GHZ	1.9783														
2	2.500000	GHZ	1.6240														
3	5.150000	GHZ	1.4831														
>4	5.850000	GHZ	1.2256														

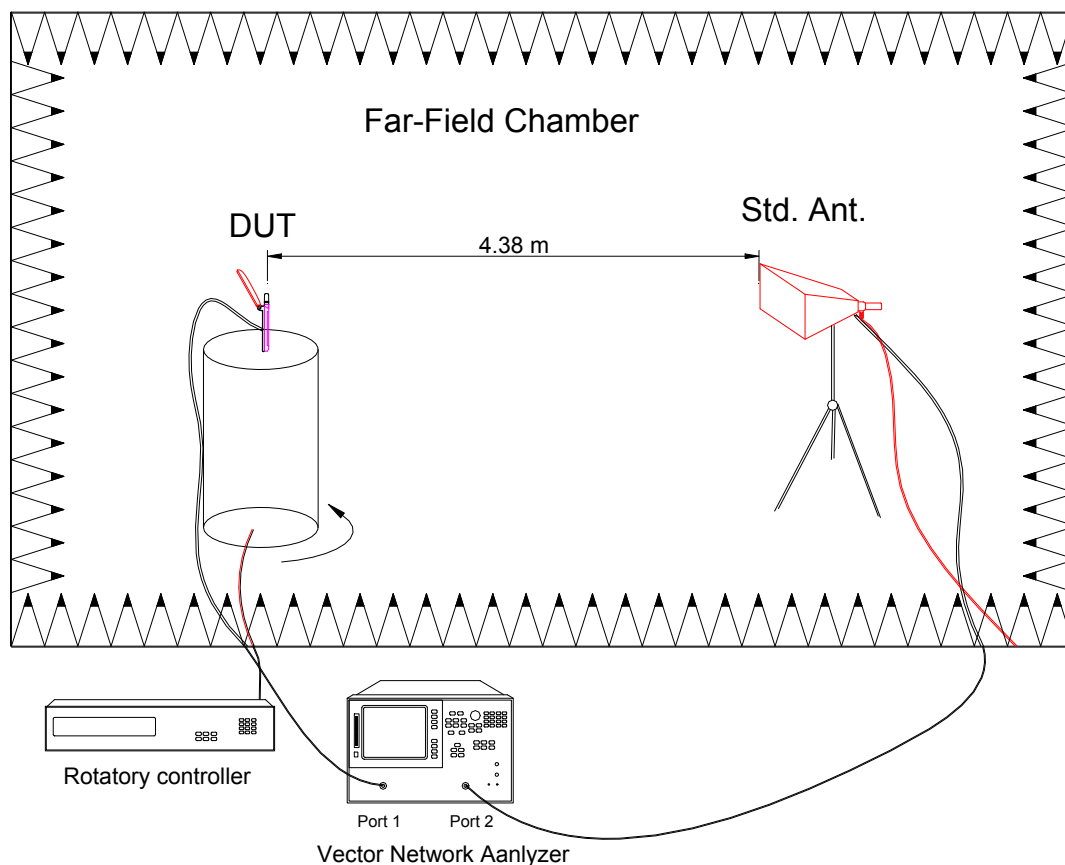
UNLESS OTHER SPECIFIED TOLERANCES ON : X=± X.X=± X.XX=± ANGLES=± HOLEDIA=±		TOXU 同讯技术 TOXU TECHNOLOGY CO., LTD. THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
SCALE :	UNIT : mm	
DRAWN BY: LI	CHECKED BY: YS	
DESIGNED BY: De wen	APPROVED BY: YS	
TITLE : KC.IA.00507 Antenna Specification		SPEC REV. P0

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



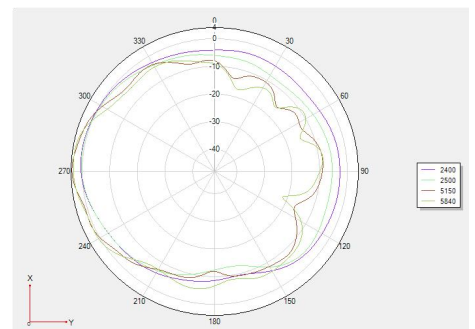
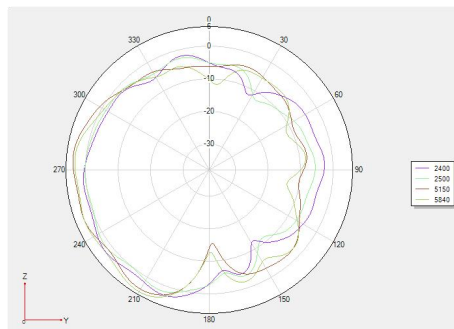
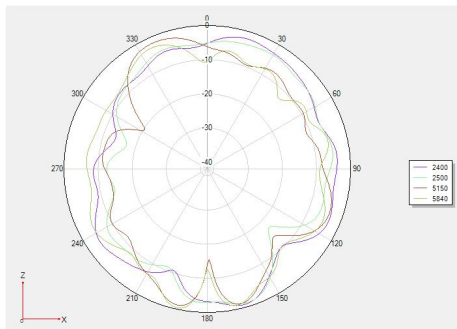
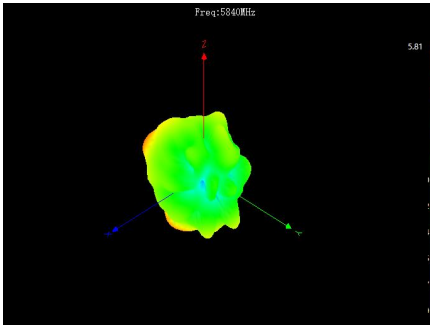
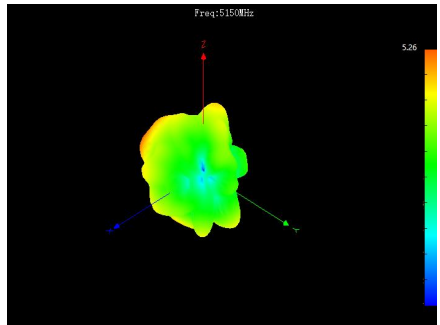
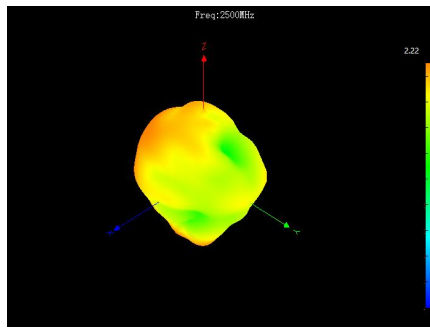
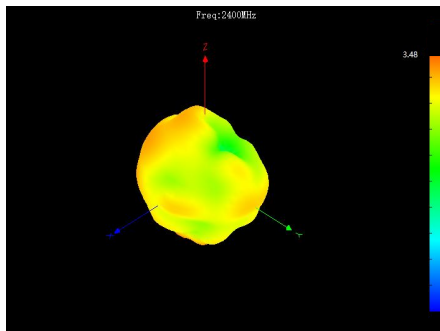
1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quite room region is 40cmx40cmx40cm at the center of rotator
3. The distance between DUT and standard antenna is 4.38 m
4. Probing antenna (9120D horn antenna) and standard gain horn antenna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

UNLESS OTHER SPECIFIED TOLERANCES ON : $X = \pm$ $X.X = \pm$ $X.XX = \pm$ ANGLES = $\pm$ HOLEDIA = $\pm$		TOXU 同讯技术 TOXU TECHNOLOGY CO., LTD.
SCALE :	UNIT : mm	
DRAWN BY: LI	CHECKED BY: YS	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
DESIGNED BY: De wen	APPROVED BY: YS	
TITLE : KC.IA.00507 Antenna Specification		SPEC REV. P0

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

Frequency/Mhz	MaxGain/dBi	Efficiency / %	Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	3.48	49.2	5330	4.93	51.4
2410	3.91	50.7	5360	4.93	53.58
2420	3.49	48.42	5390	4.87	52.6
2430	3.73	48.53	5420	4.78	53.33
2440	3.44	46.77	5450	5	56.1
2450	3.16	46.56	5480	4.74	50.35
2460	2.96	47.16	5510	5.07	53.21
2470	2.49	46.66	5540	4.79	52.24
2480	2.85	46.85	5570	4.78	48.87
2490	2.24	46.05	5600	4.17	45.6
2500	2.22	47.36	5630	4.65	48.19
			5660	4.76	49.66
5150	5.26	61.09	5690	4.89	48.53
5180	5.32	60.26	5720	5.36	52.97
5210	4.89	56.49	5750	5.64	55.85
5240	4.82	53.09	5780	5.78	58.34
5270	4.52	48.75	5810	5.63	54.33
5300	4.74	49.77	5840	5.81	56.89

UNLESS OTHER SPECIFIED TOLERANCES ON :			TOXU TECHNOLOGY CO., LTD.
X=± X.X=± X.XX=± ANGLES=± HOLEDIA=±			
SCALE :	UNIT : mm	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DRAWN BY: LI	CHECKED BY: YS		
DESIGNED BY: De wen	APPROVED BY: YS		
TITLE : KC.IA.00507 Antenna Specification			SPEC REV.
			P0

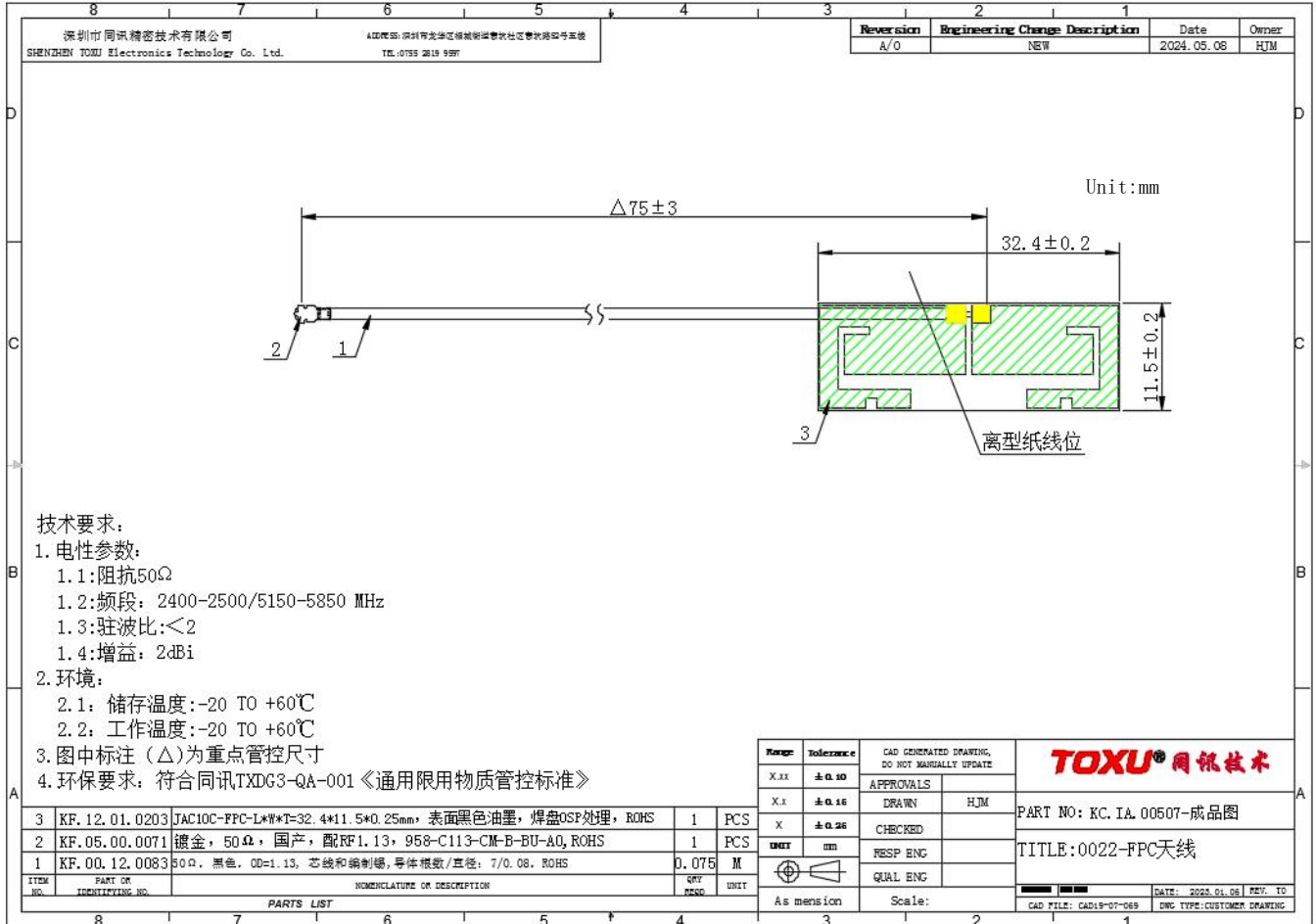


UNLESS OTHER SPECIFIED TOLERANCES ON :		TOXU 同讯技术	TOXU TECHNOLOGY CO., LTD.
X=± X.X=± X.XX=± ANGLES=± HOLEDIA=±			
SCALE :	UNIT : mm	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DRAWN BY: LI	CHECKED BY: YS		
DESIGNED BY: De wen	APPROVED BY: YS		
TITLE : KC.IA.00507 Antenna Specification			SPEC REV.
			P0

3. Mechanical Specification:

3-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing

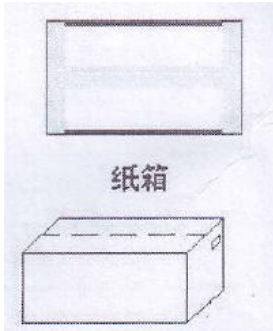


UNLESS OTHER SPECIFIED TOLERANCES ON :		TOXU 同訊技术	TOXU TECHNOLOGY CO., LTD.
X=±	X.X=±		
ANGLES=±		HOLEDIA=±	
SCALE :	UNIT : mm	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DRAWN BY: LI	CHECKED BY: YS		
DESIGNED BY: De wen	APPROVED BY: YS		
TITLE : KC.IA.00507 Antenna Specification			SPEC REV.
			P0

4 .Packaging specification:

Product number: xxxxx			
Product model: xxxxx			
一、 Label requirements:			
Customer	xxx		
supplier	xxxxxx		
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:			
a. Whether to add partition and pearl cotton;			
b. Label attachments, such as ROHS, etc.;			





UNLESS OTHER SPECIFIED TOLERANCES ON :		 TOXU TECHNOLOGY CO., LTD.
X=±	X.X=±	
ANGLES=±	HOLEDIA=±	
SCALE :	UNIT : mm	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF TOXU TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
DRAWN BY: LI	CHECKED BY: YS	
DESIGNED BY: De wen	APPROVED BY: YS	
TITLE : KC.IA.00507 Antenna Specification		SPEC REV.
		P0