

KC.IA.00321

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	2400-2500/5150-5850

2-2. Impedance

50 ohm nominal

2-3. VSWR

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

Frequency Band(MHz)	2400	2500	5150	5850
2-3-3. Typical Value:	1.95	1.30	1.11	1.36

2-3-2. VSWR

Frequency Band(MHz)	2400	2500	5150	5850
Typical Value:	≤2	≤2	≤2	≤2

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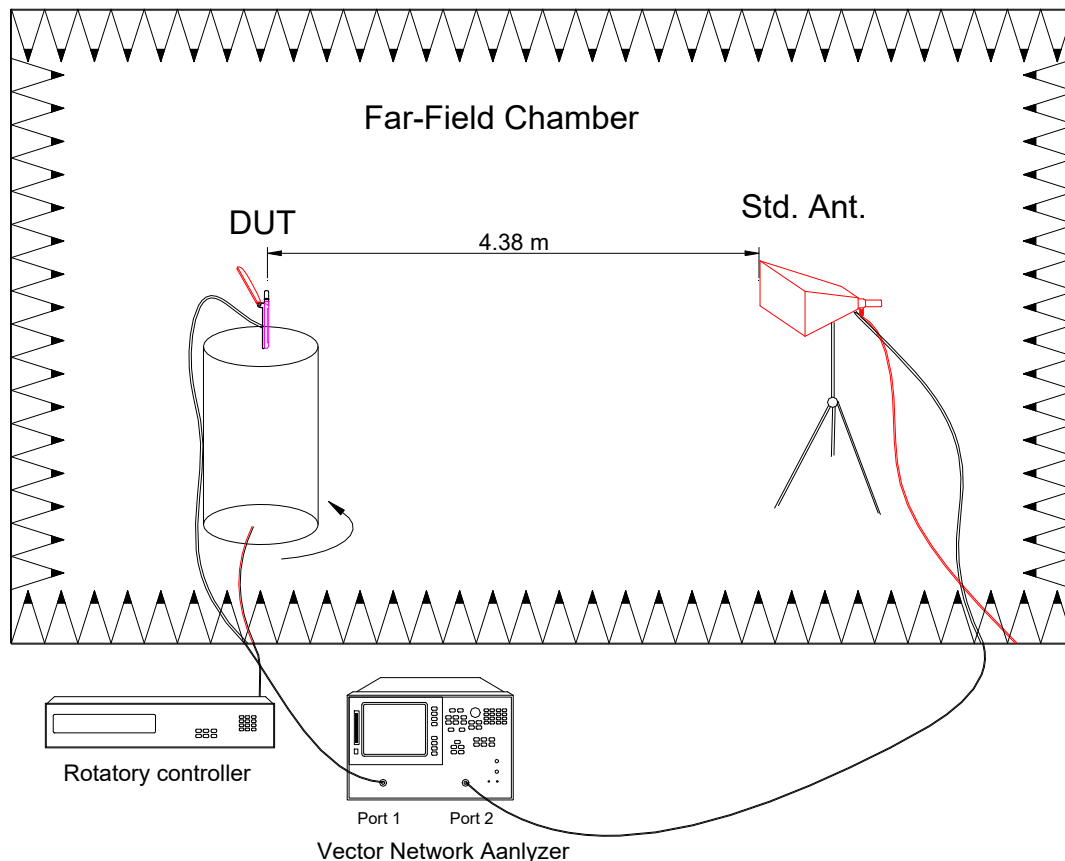
2-3-3 Measuring Method	1. A 50 Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR. 2. Keeping this jig away from metal at least 20 cm																
2-3-4 Picture	1 Active Ch/Trace2 Response3 Stimulus4 Mkr/Analysis5 Instr State Tr1 S11 SWR 1.000/ Ref 1.000 [F1] <table><tr><td>1</td><td>2.4000000</td><td>GHz</td><td>1.7495</td></tr><tr><td>2</td><td>2.5000000</td><td>GHz</td><td>1.2303</td></tr><tr><td>3</td><td>5.1500000</td><td>GHz</td><td>1.1779</td></tr><tr><td>>4</td><td>5.8500000</td><td>GHz</td><td>1.1532</td></tr></table> 1 Start 2 GHzIFBW 70 kHzStop 6 GHzCor MeasStopExtRefReady	1	2.4000000	GHz	1.7495	2	2.5000000	GHz	1.2303	3	5.1500000	GHz	1.1779	>4	5.8500000	GHz	1.1532
1	2.4000000	GHz	1.7495														
2	2.5000000	GHz	1.2303														
3	5.1500000	GHz	1.1779														
>4	5.8500000	GHz	1.1532														

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2-4-2 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

2-4-3 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)

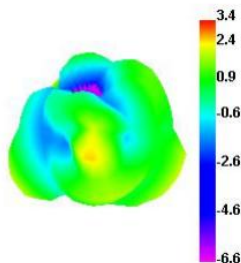
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2-4-1 Efficiency and Gain

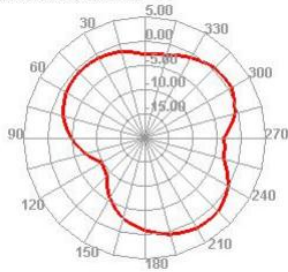
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	73.82	-1.32	3.42
2410	65.81	-0.66	4.05
2420	80.09	-0.96	3.63
2430	80.03	-0.22	4.49
2440	71.49	-0.39	3.96
2450	71.7	-1.44	3.17
2460	75.79	-1.2	3.3
2470	69	-0.51	3.69
2480	78.02	-1.08	3.09
2490	75.41	-1.23	2.74
2500	74.59	-1.27	2.59

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	63.35	-1.98	4.19
5200	61.84	-2.09	4.63
5250	63.2	-1.99	5.15
5300	77.44	-1.11	5.36
5350	74.04	-1.31	5.19
5400	86.9	-0.61	5.06
5450	86.61	-0.62	5.65
5500	66.11	-1.8	5.58
5550	61.2	-2.13	5.3
5600	52.94	-2.76	4.86
5650	64.54	-1.9	5.57
5700	65.55	-1.83	5.53
5750	58.87	-4.1	4
5800	57.09	-2.43	5.1
5850	59.35	-2.27	5.22

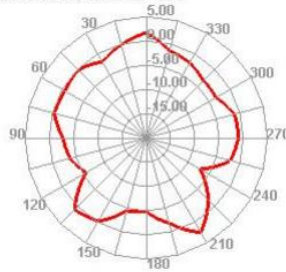
2400.000MHz



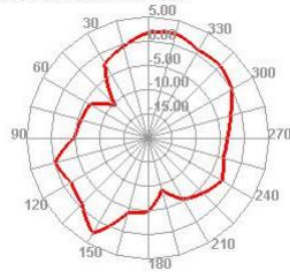
2400.000MHz H



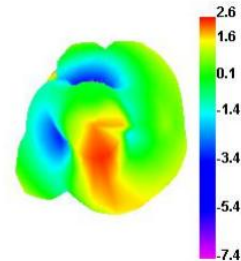
2400.000MHz E1



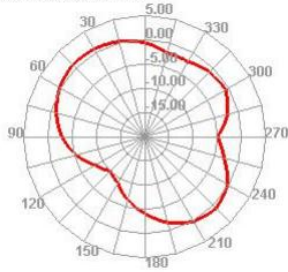
2400.000MHz E2



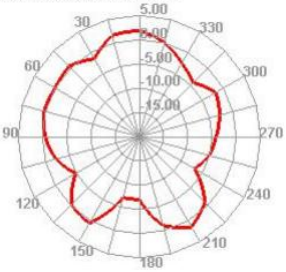
2500.000MHz



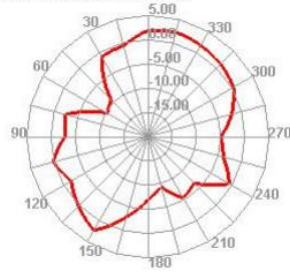
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



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ANGLES=± HOLEDIA=±

SCALE:

UNIT: mm

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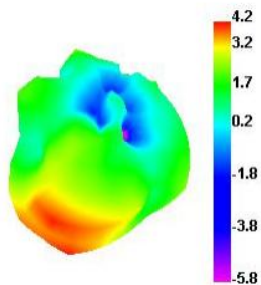
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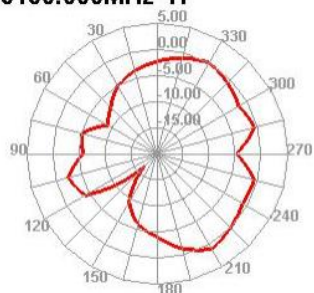
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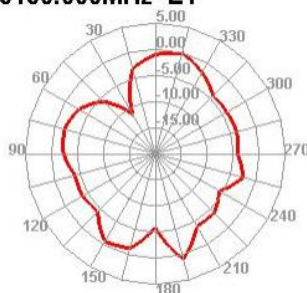
5150.000MHz



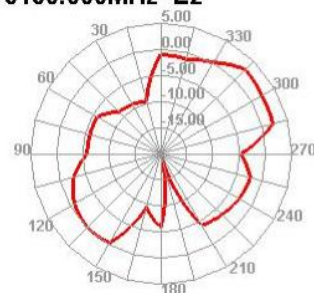
5150.000MHz H



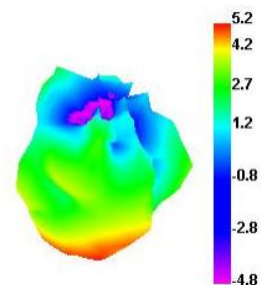
5150.000MHz E1



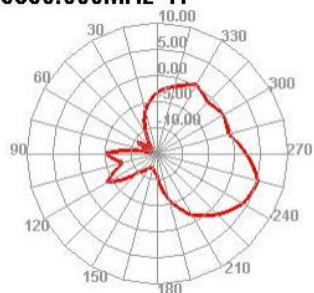
5150.000MHz E2



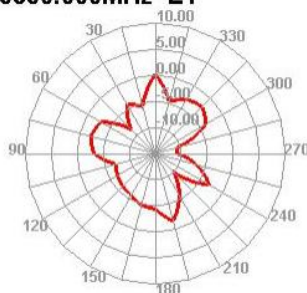
5850.000MHz



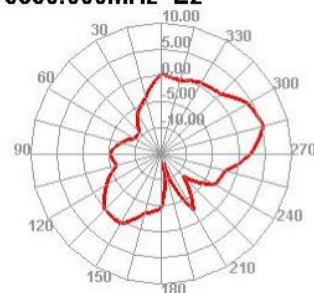
5850.000MHz H



5850.000MHz E1

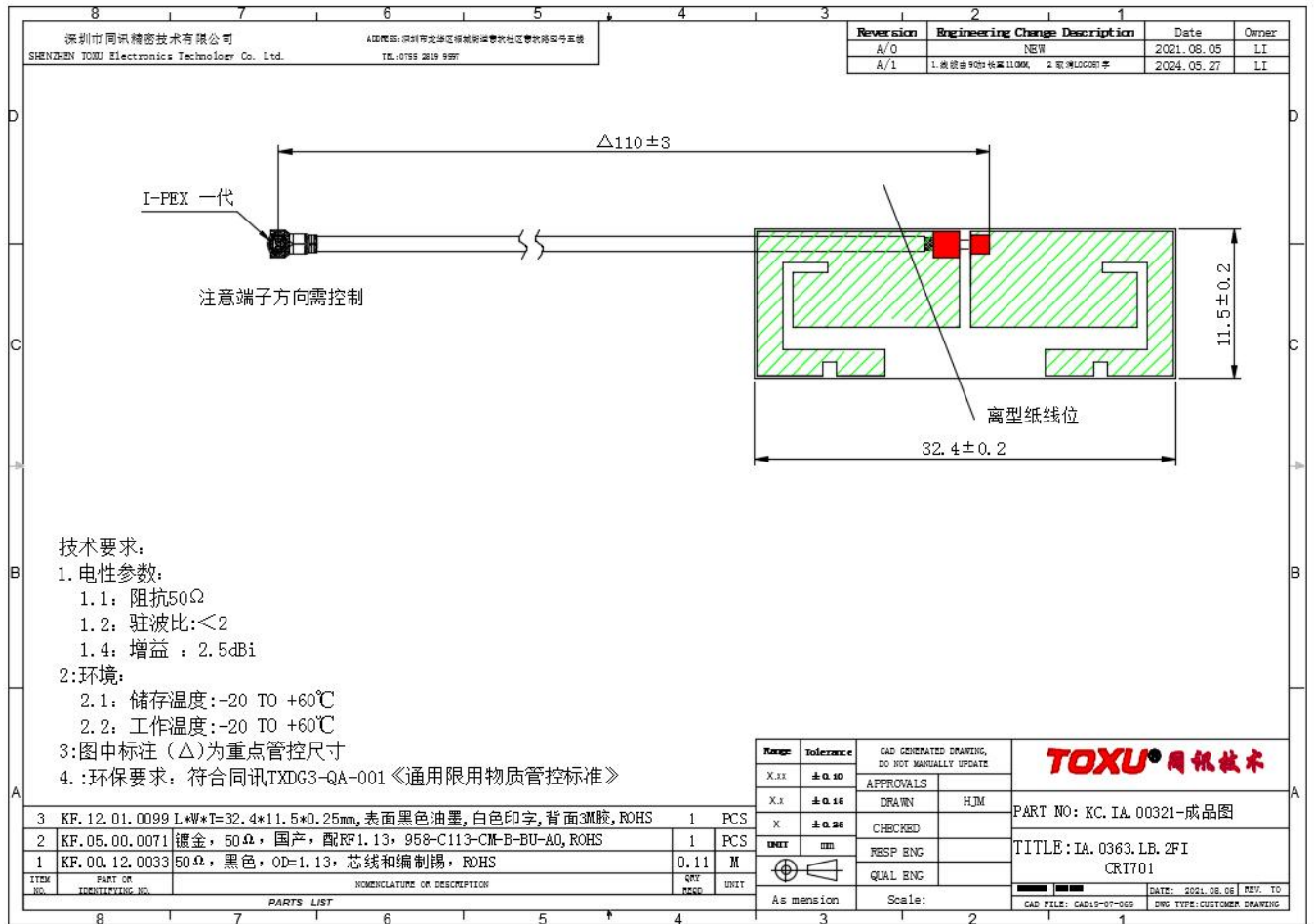


5850.000MHz E2

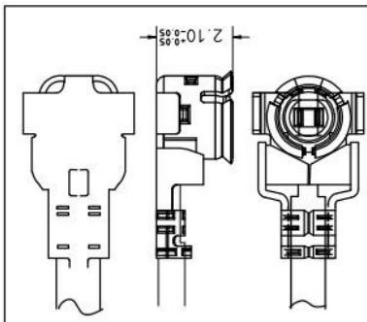


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3. Mechanical Specification:



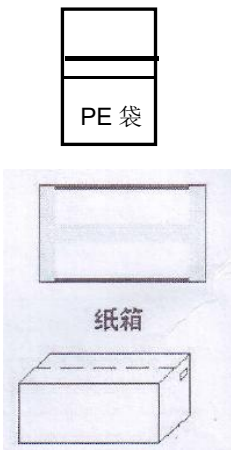
3-2. Connector appearance:



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4.包装规格:

产品料号: xxx			
产品型号: xxx			
一、标签要求:			
需方	xxx		
供方	xxxxxx		
物料编码	xx		
产品型号	xx		
数量/单	xxx PCS	出厂日期	x 年 x 月 x 日
备注/其他			
二、装箱要求: 作业说明: 1. 内包装: 产品 XXpcs 一袋, 放入小 PE 袋; 2. 外包装: XxPCS 一箱; 3. 注意事项: a. 是否要增设隔板、珍珠棉; b. 标签的帖附, 如 ROHS 等;			



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Longhua District, Shenzhen city

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