

IA.0260.LB.3FI (WIFI/GPS)

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
WIFI2.4/5.8G/GPS	2400-2500/5150-5850/1575

2-2. Impedance

50 ohm nominal

2-3. VSWR

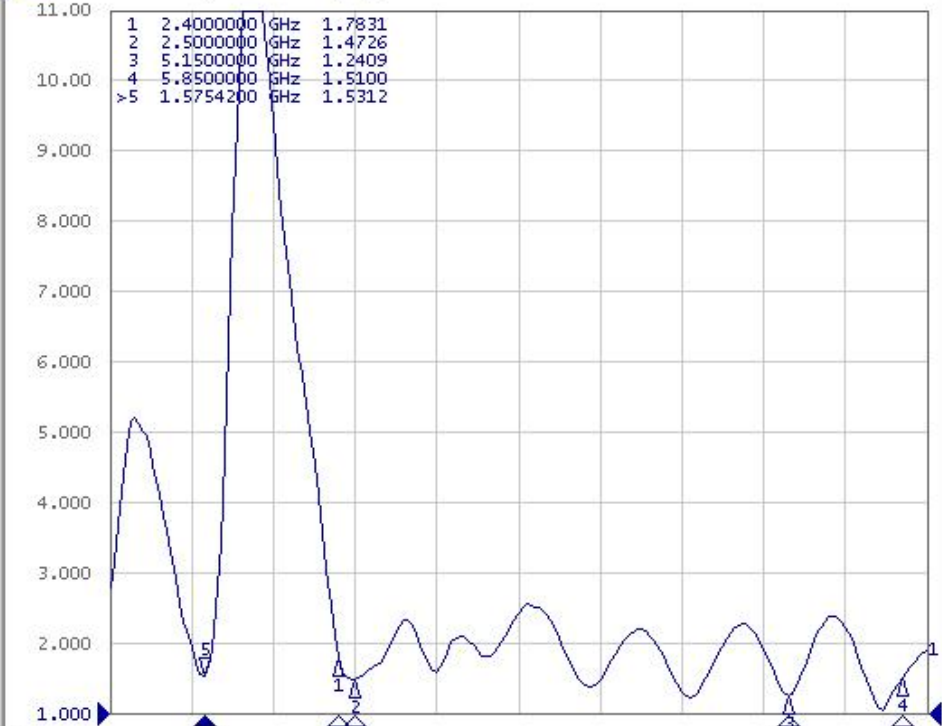
2-3-1.Measurement frequency points and VSWR value

Frequency Band(MHz)	2400	2500	5150	5850	1575
2-3-3. Typical Value:	1.78	1.47	1.24	1.51	1.53

2-3-2. VSWR

Frequency Band(MHz)	2400	2500	5150	5850	1575
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	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>2.400000</td><td>GHz</td><td>1.7831</td></tr><tr><td>2</td><td>2.500000</td><td>GHz</td><td>1.4726</td></tr><tr><td>3</td><td>5.150000</td><td>GHz</td><td>1.2409</td></tr><tr><td>4</td><td>5.850000</td><td>GHz</td><td>1.5100</td></tr><tr><td>>5</td><td>1.5754200</td><td>GHz</td><td>1.5312</td></tr></table>  1 Start 1 GHzIFBW 70 kHzStop 6 GHz MeasStopExtRefReadySvc2021-	1	2.400000	GHz	1.7831	2	2.500000	GHz	1.4726	3	5.150000	GHz	1.2409	4	5.850000	GHz	1.5100	>5	1.5754200	GHz	1.5312
1	2.400000	GHz	1.7831																		
2	2.500000	GHz	1.4726																		
3	5.150000	GHz	1.2409																		
4	5.850000	GHz	1.5100																		
>5	1.5754200	GHz	1.5312																		

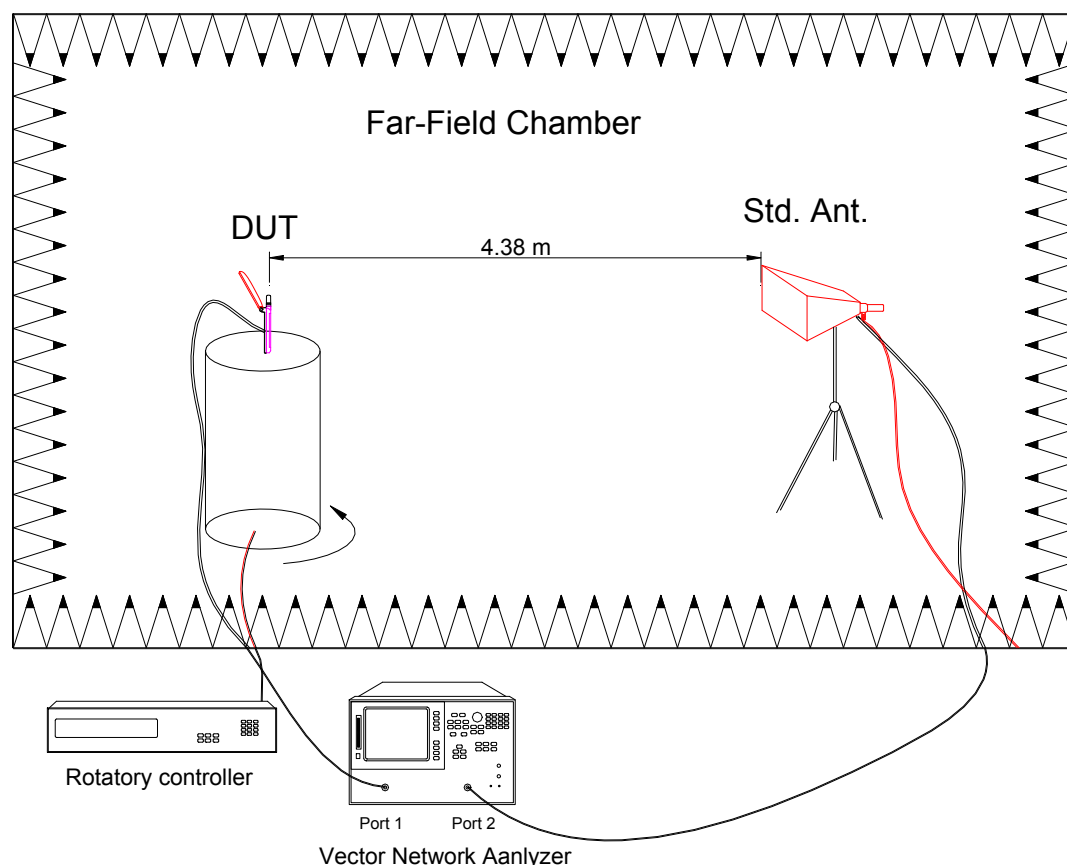
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2-4. Efficiency and Gain

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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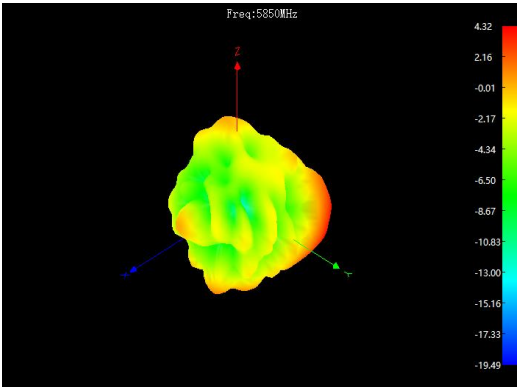
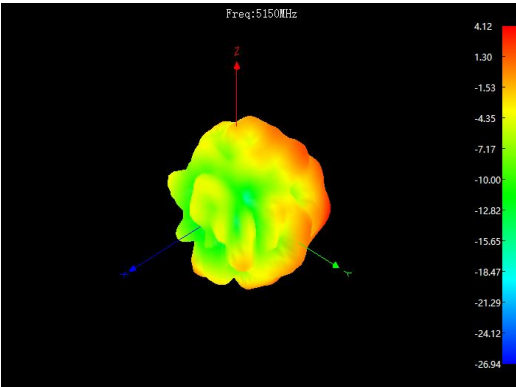
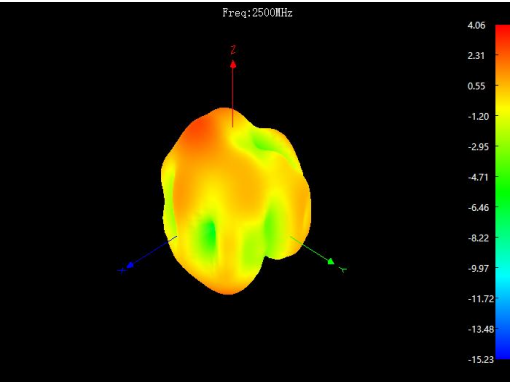
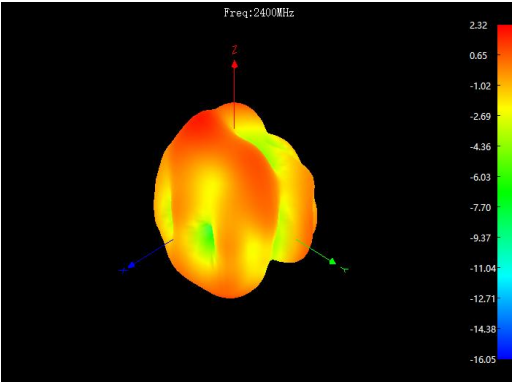
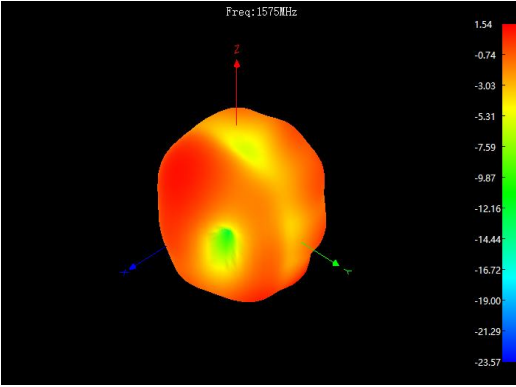
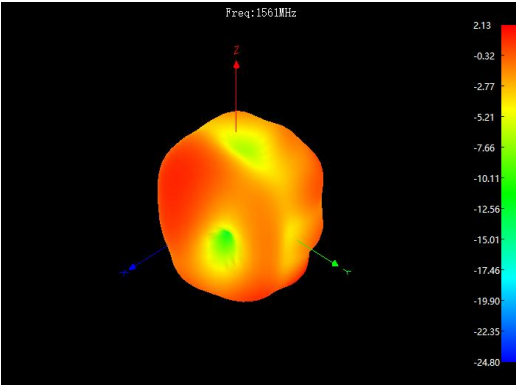
2-4-1 Efficiency and Gain

Frequency/Mhz	MaxGain/dBi	Efficiency / %
1559	2.11	46.13
1560	2.25	47.42
1561	2.13	47.32
1562	2.02	47.21
1563	1.92	47.1
1564	1.78	46.34
1565	1.71	46.24
1570	1.97	48.08
1575	1.54	44.67
1580	1.91	44.67

Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	2.32	65.92
2410	3.3	69.02
2420	3.02	70.47
2430	3.62	66.68
2440	3.02	63.24
2450	3.11	61.52
2460	2.99	62.23
2470	3.22	63.39
2480	3.8	67.45
2490	3.74	69.34
2500	4.06	70.79

Frequency/Mhz	MaxGain/dBi	Efficiency / %		Frequency/Mhz	MaxGain/dBi	Efficiency / %
5150	4.12	58.21		5510	4.04	55.21
5170	3.97	58.88		5530	4.03	56.49
5190	4.02	61.8		5550	4.3	57.54
5210	4.01	60.12		5570	4.16	56.1
5230	4.06	61.52		5590	3.72	53.33
5250	3.94	61.8		5610	3.51	51.05
5270	3.94	60.53		5630	3.75	53.83
5290	4.06	60.67		5650	4.2	55.34
5310	4.25	63.68		5670	4.36	55.59
5330	3.93	62.23		5690	3.92	52.72
5350	4.26	64.86		5710	3.99	53.95
5370	4.35	63.68		5730	4.14	54.7
5390	4.11	59.7		5750	4.05	54.7
5410	3.71	54.83		5770	3.98	54.45
5430	3.9	54.83		5790	3.73	56.89
5450	3.97	54.08		5810	3.92	59.7
5470	4.18	55.08		5830	4.36	65.46
5490	4.01	54.95		5850	4.32	66.07

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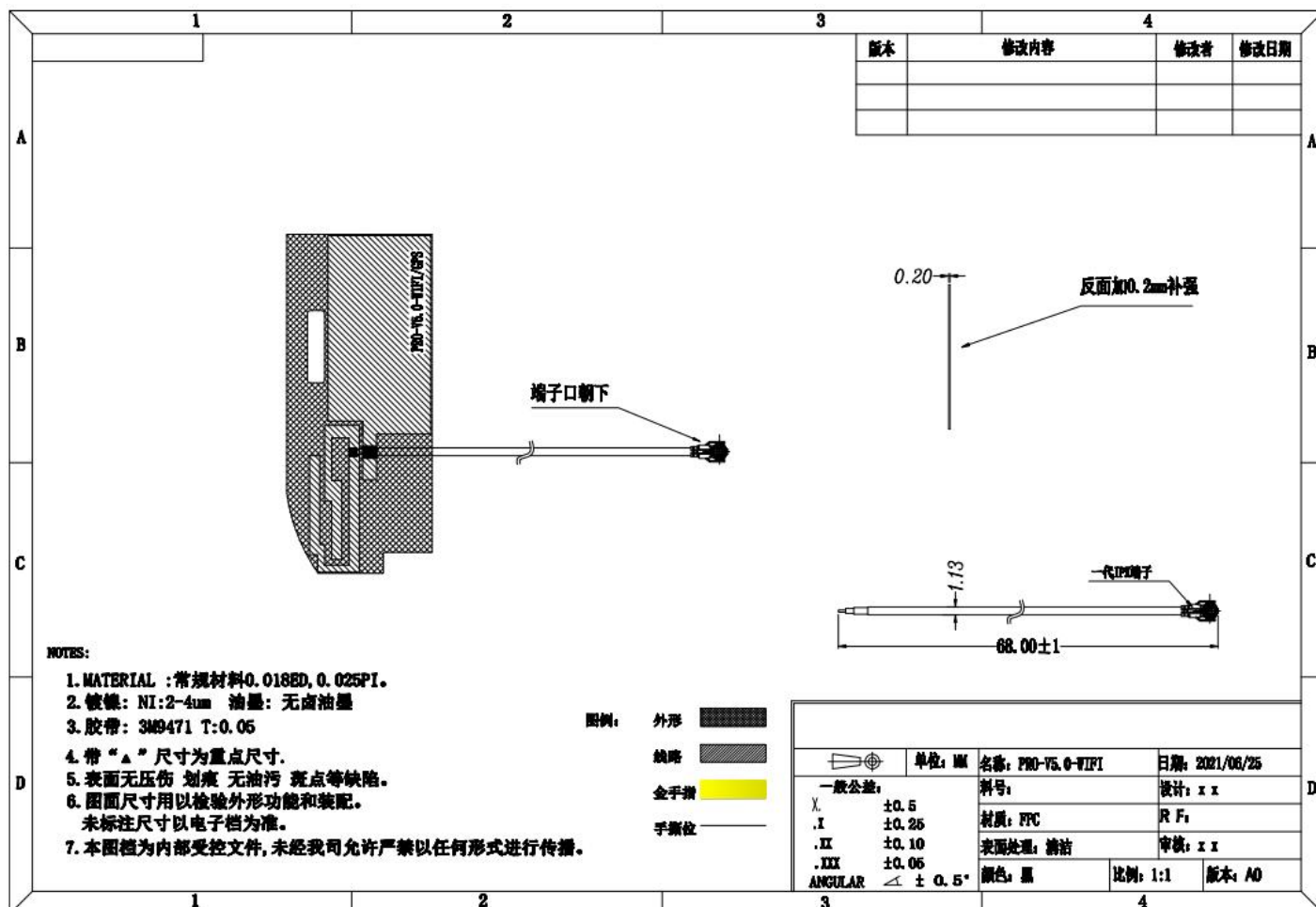


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3. Mechanical Specification:

3-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing



3-2. Connector appearance:

IPEX

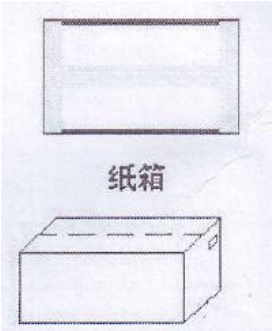
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4.包装规格:

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;			



PE 袋



纸箱

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