

IA.0331.LB.2FI (X10-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
GPS/WIFI2.4/5.8G	1575.42/2400-2500/5150-5850

2-2. Impedance

50 ohm nominal

2-3. VSWR

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

Frequency Band(MHz)	1575.42	2400	2500	5150	5850
2-3-3. Typical Value:	1.32	1.65	1.10	1.49	1.50

2-3-2. VSWR

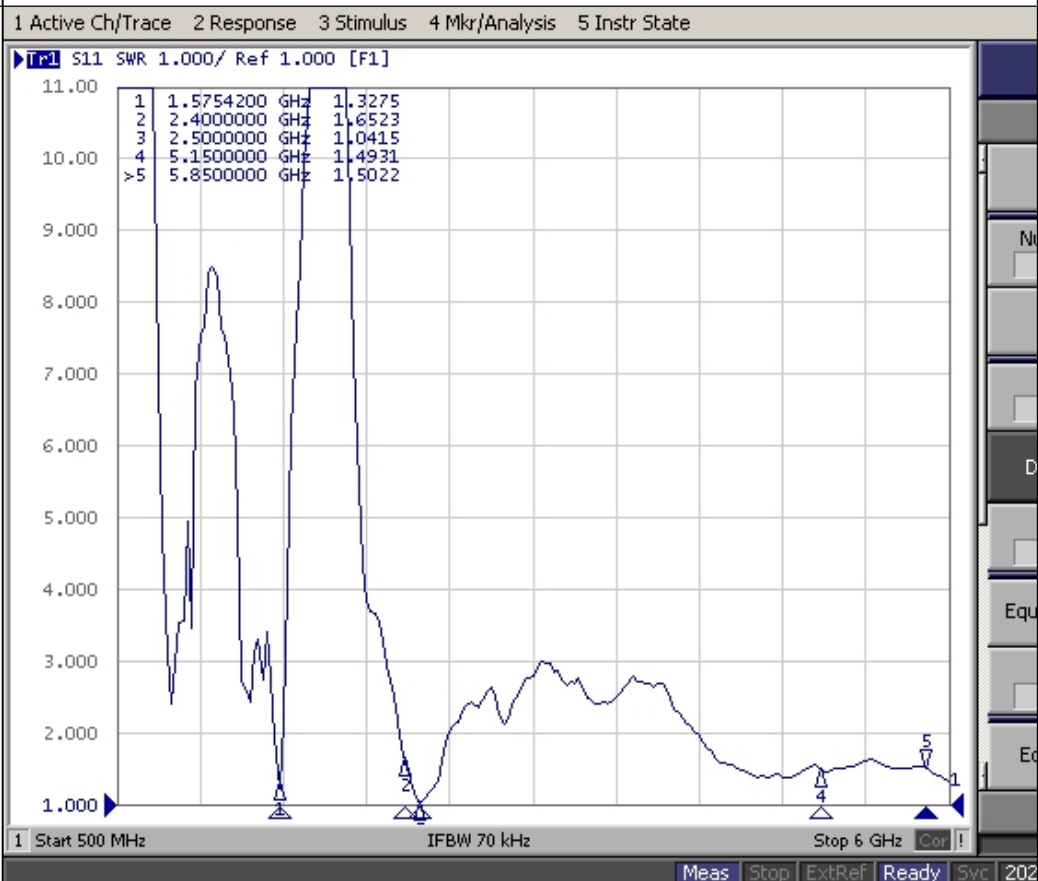
Frequency Band(MHz)	1575.42	2400	2500	5150	5850
2-3-3. Typical Value:	≤2	≤2	≤2	≤2	≤2

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2-3-4 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

2-3-5 Picture



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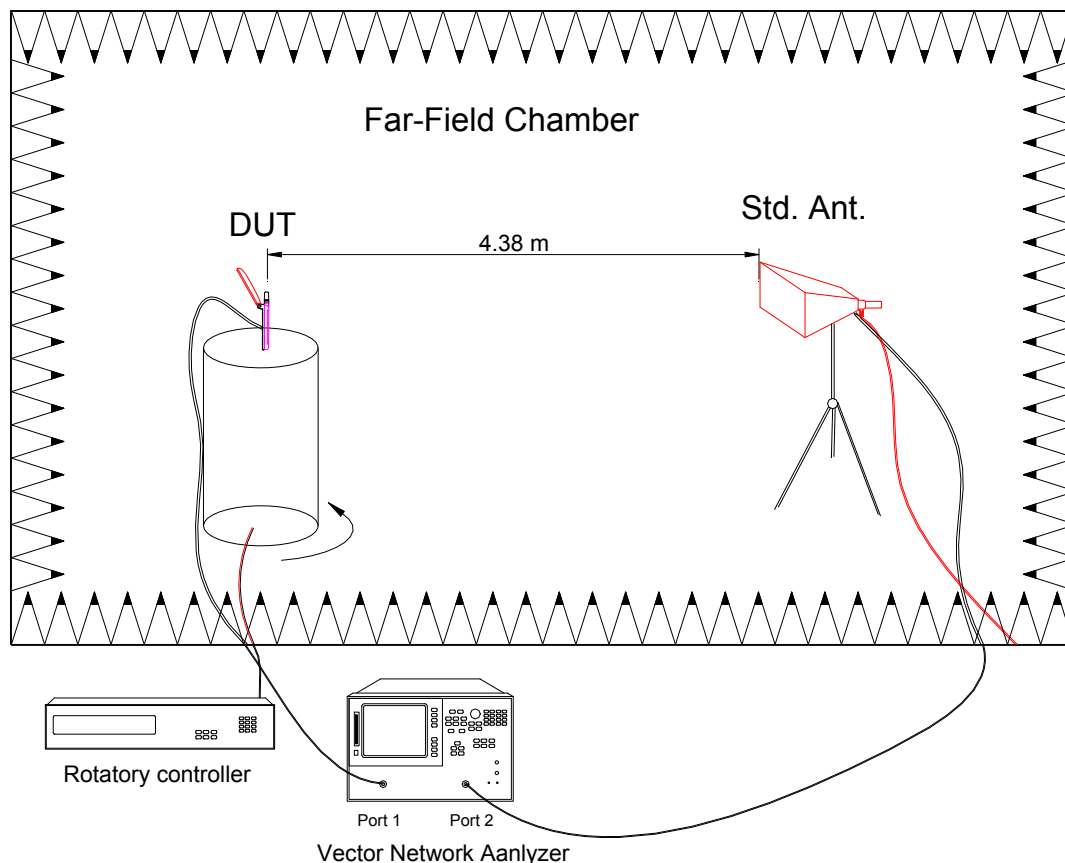
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2-4. Efficiency and Gain

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 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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WIFI 2.4G

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	38.79	-2.11	0.95
2410	50.81	-2.16	0.5
2420	47.75	-4.23	0.8
2430	48.87	-3.11	1
2440	45.2	-4.53	0.8
2450	48.84	-4.11	0.8
2460	39.49	-4.38	0.85
2470	49.81	-3.03	0.9
2480	43.92	-3.57	1
2490	48.91	-3.11	0.85
2500	46.41	-3.33	0.9

WIFI 5G

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	49.38	-3.06	0.95
5200	46.01	-3.37	0.5
5250	44.72	-3.5	0.8
5300	52.82	-2.77	1
5350	56.75	-2.46	0.8
5400	66.85	-1.75	0.5
5450	72.2	-1.41	0.8
5500	57.08	-2.44	1
5550	49.35	-3.07	0.8
5600	45.27	-3.44	0.8
5650	76.54	-1.16	0.85
5700	79.94	-0.97	0.9
5750	49.69	-3.04	1
5800	73.77	-1.32	0.85
5850	72.69	-1.39	0.9

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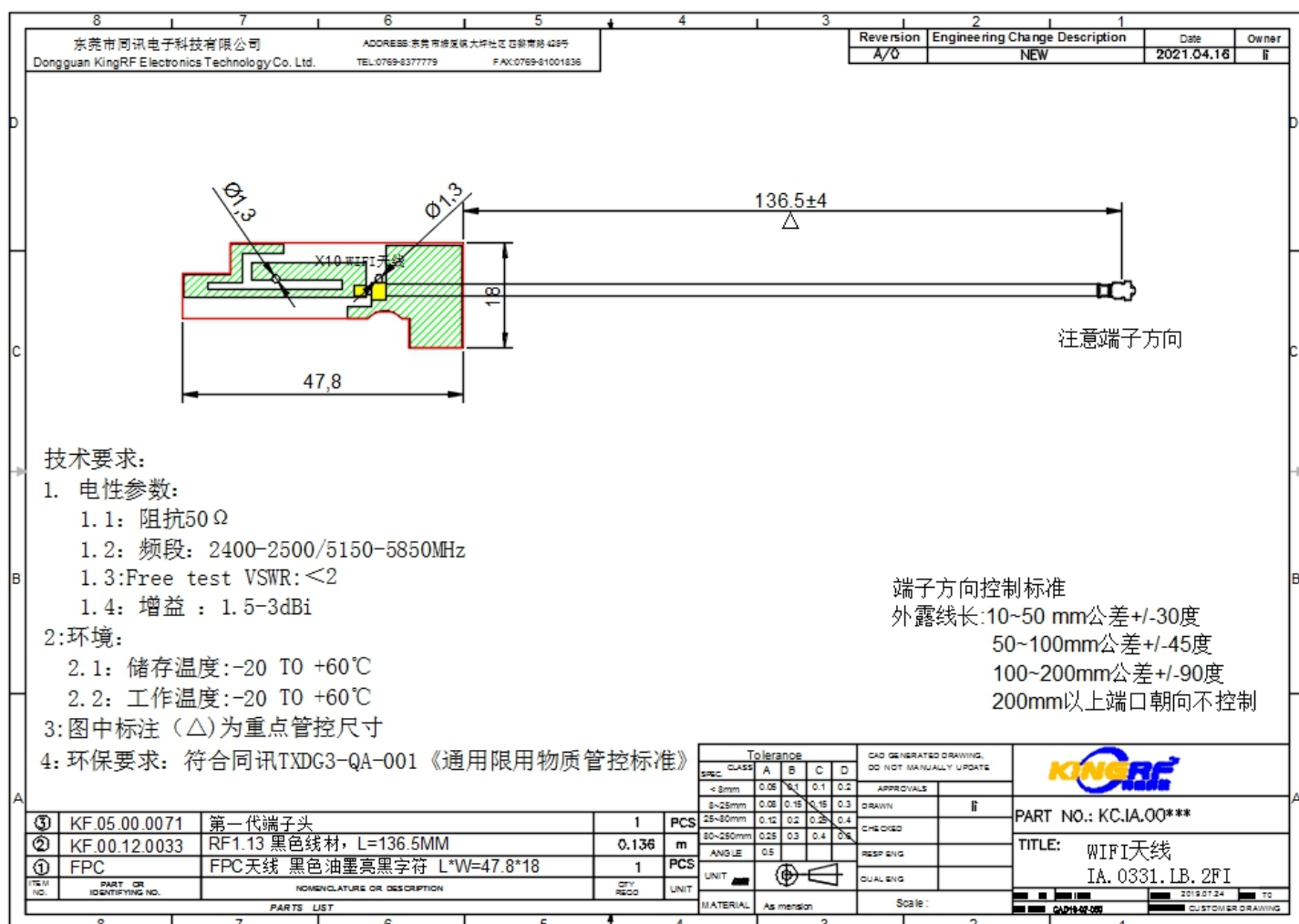
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3. Mechanical Specification:

3-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing



3-2. Connector appearance:

IPEX

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5.包装规格:

产品料号: **xxx**产品型号: **xxx**

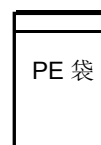
一、标签要求:

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:

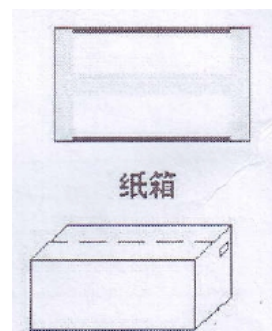
产品 **XXpcs** 一袋, 放入小 **PE** 袋;

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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