

Manufacturer: **深圳市凯普深通讯科技有限公司**
Shenzhen Cap Shenzhen Communication Technology Co., Ltd

样品承认书
Sample Recognition Letter

客户名称Customer name: 瑞扩科技Ruikuo Technology

项目名称Project name: Model: LP10

样品名称Sample Name: BT天线BT Antenna

颜色/版本Color/version: 黑色/A Black/A

签样日期Signature date: 2024/10/10

供方确认 Supplier confirms	制作make	研发R&D	结构structure	品质quality
	沈国琴 2024.10.10			

客户确认 Customer confirmation	项目project	外观Appearance	结构structure	品质quality

结论conclusion	☐ 批量使用 MPUse MP in bulk ☐ 限量使用Limited use () K
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☐ ROHS

Manufacturer:
供方名称: 深圳市凯普深通讯科技有限公司
Supplier name: Shenzhen Kaipu Shenzhen Communication Technology Co., Ltd
Manufacturer's Address:
供方地址: 深圳市龙华新区龙观大道440号龙城工业区御龙办公楼2楼
Supplier address: 2nd floor, Yulong Office Building, Longcheng Industrial Zone, No. 440 Longguan Avenue, Longhua New District, Shenzhen
电话Phone: 0755-29351613 传真fax:0755-29351510
E-mail:szkpstx@szkpstx.com

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4.1 天线性能Antenna performance

4.1-1 规格标准Specification standard

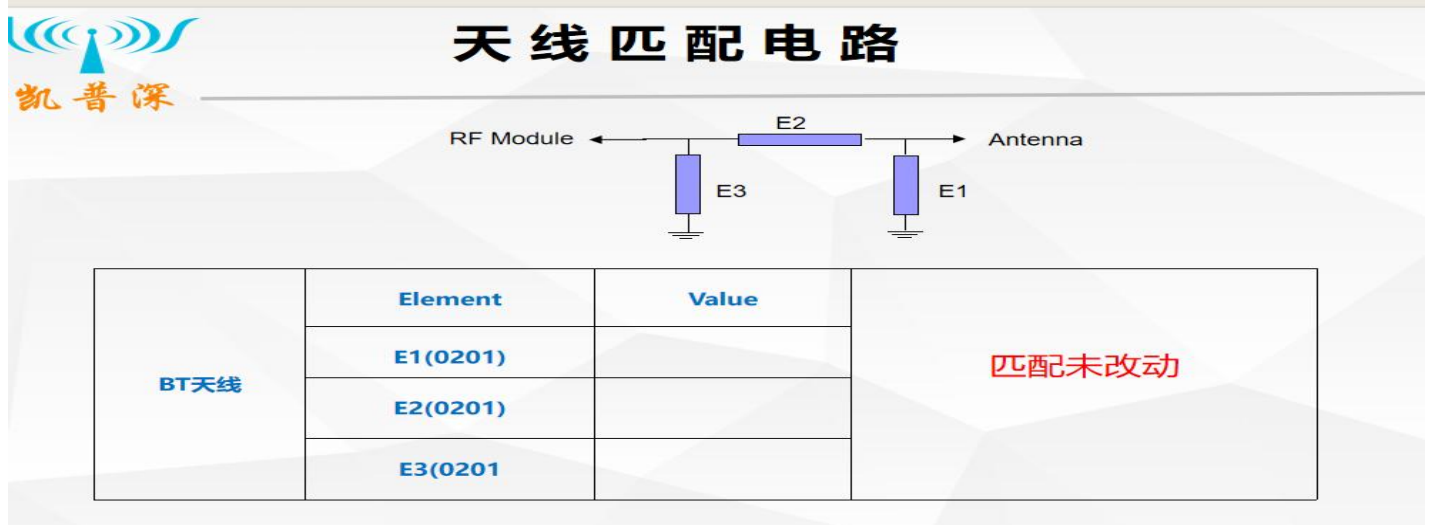
主天线 工作频段在2400M--2480M 产生谐振。

The main antenna works in the frequency band 2400M--2480M to generate resonance.

4.1-2 天线的匹配电路.Matching circuit of the antenna.

GSM: 匹配电路如下:

GSM: The matching circuit is as follows



天线无源效率Antenna passive efficiency

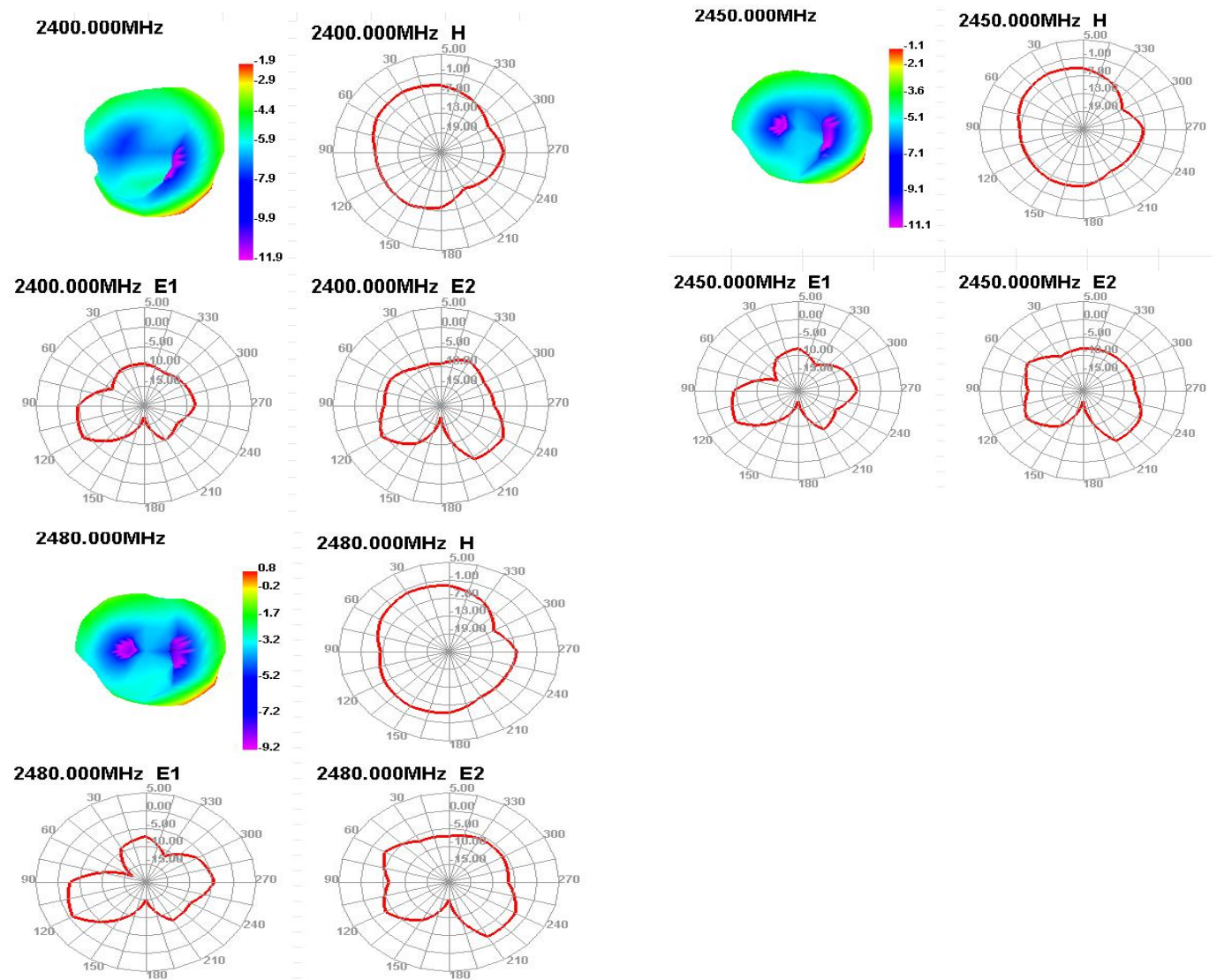
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	22.12	-6.55	-5.25
2410	23.08	-6.37	-4.87
2420	24.53	-6.10	-4.37
2430	24.47	-6.11	-4.18
2440	25.56	-5.92	-3.85
2450	25.96	-5.86	-3.69
2460	26.03	-5.85	-3.53
2470	24.24	-6.15	-3.74
2480	25.03	-6.02	-3.5

Frequency(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)
5100	2.86	-2.9	51.23
5150	2.71	-2.85	51.91
5200	2.62	-3.13	48.6
5250	2.58	-3.48	44.91
5300	2.61	-3.58	43.85
5350	2.01	-3.96	40.21
5400	1.02	-4.22	37.85
5450	0.62	-4.47	35.7
5500	0.36	-4.53	35.21
5600	-0.21	-4.49	35.57
5650	-0.47	-4.55	35.07
5700	-0.81	-4.46	35.84
5750	0.29	-4.14	38.51
5800	0.68	-4.01	39.76

天线驻波Antenna standing wave

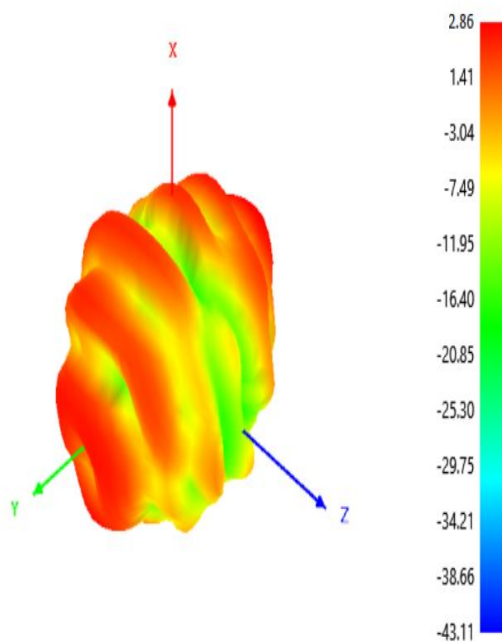


无源方向图Passive directional diagram

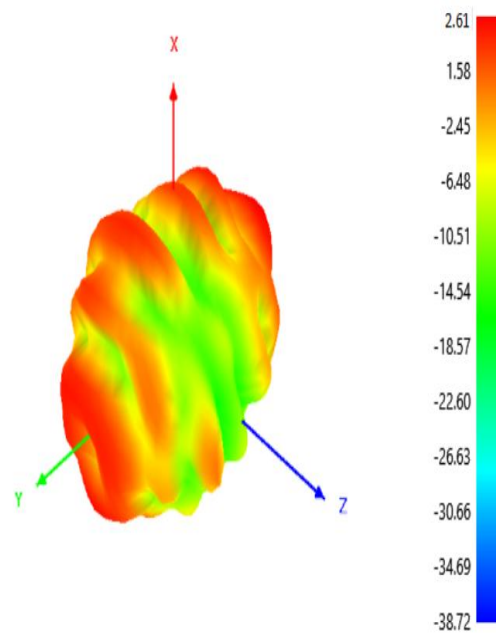


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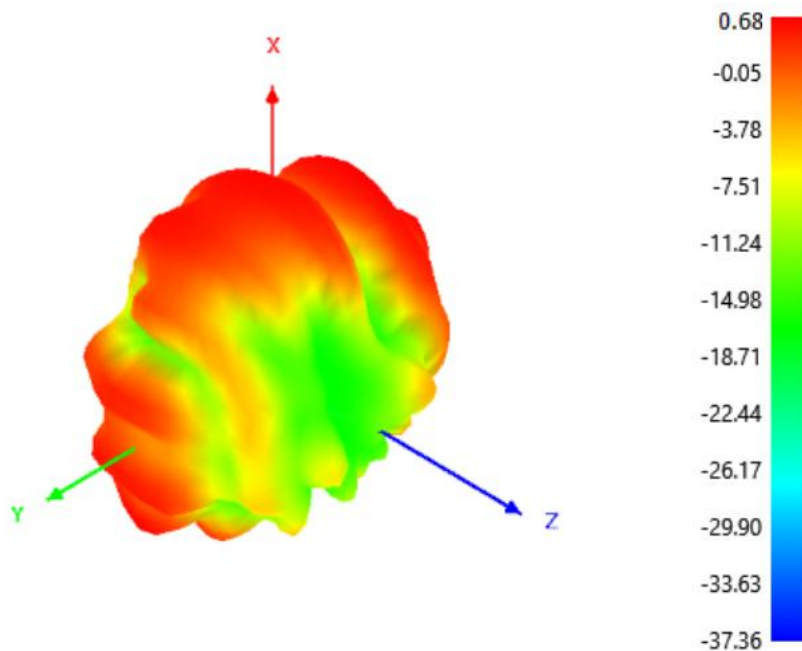
Freq: 5100MHz (AxisX)



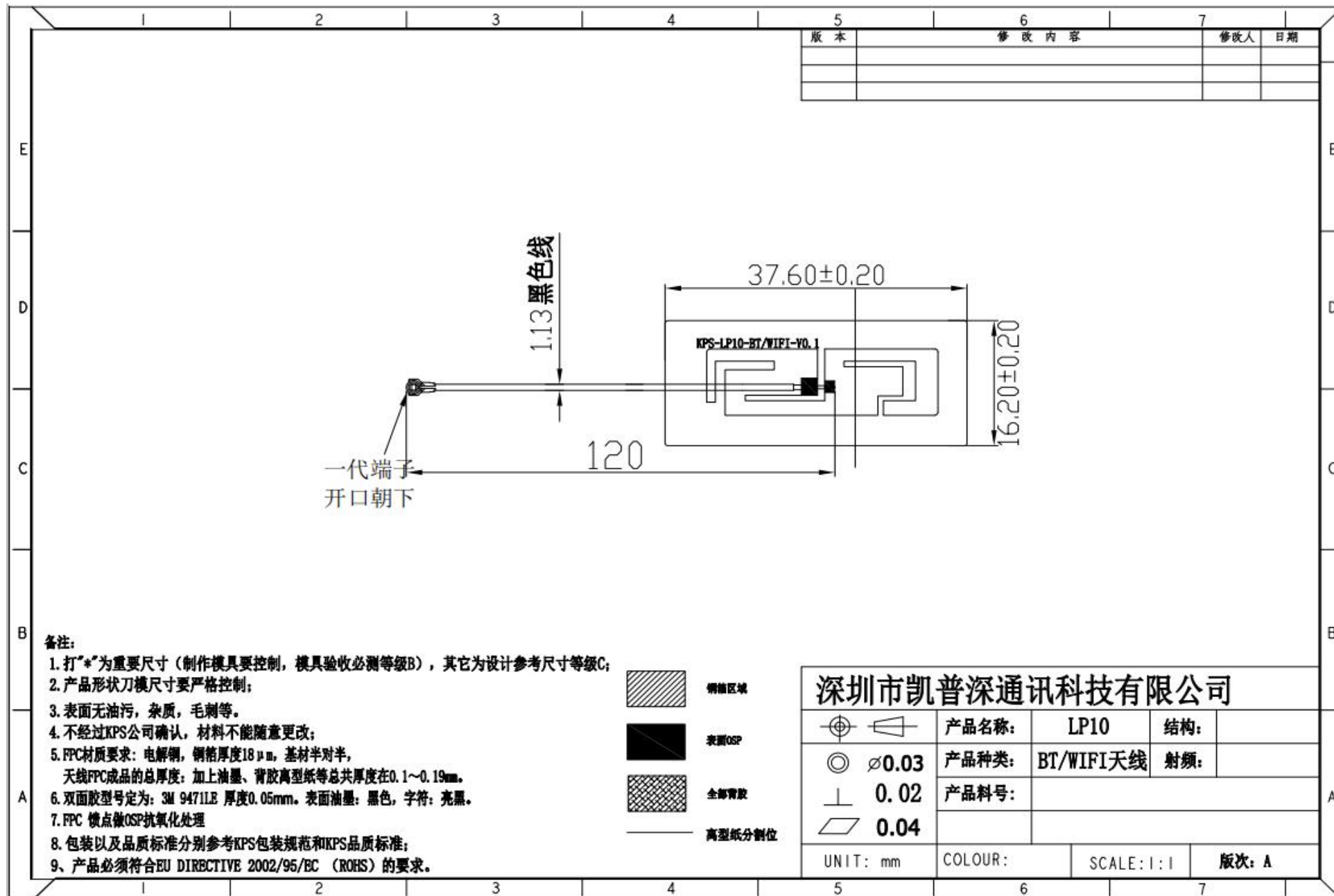
Freq: 5300MHz (AxisX)



Freq: 5800MHz (AxisX)



3.1: 天线结构图Antenna structure diagram



全尺寸测量报告

	客户 client	瑞扩科技 Ruikuo Technology		项目名称Measurement tools ...		LP10						材 料 materials	电解铜 Electrolytic copper
	供应商 vendor	凯普深 Cape Deep		测量工具 Measurement tools		二次元Two-dimensional		测量单位Units of measurement		MM		测量日期 Date of measurement	2024/9/26
NO.	尺寸size	上限 upper limit	+ TOL.	- TOL.	下限 lower limit	实测Measured 1	实测Measured 2	实测Measured 3	实测Measured 4	实测Measured 5	实测Measured 6	UPPER ≦ 100%	LOWER ≦ 100%
1	37.60	37.70	0.10	0.10	37.50	37.66	37.63	37.58	37.62	37.62	37.60	60%	20%
2	16.20	16.30	0.10	0.10	16.10	16.18	16.22	16.21	16.21	16.19	16.19	20%	20%
3	120.00	121.00	1.00	1.00	119.00	120.00	120.00	120.50	120.20	120.00	120.00	50%	0%
4													
5													
6													

盐雾测试报告

日期: 2024 年 09 月 26日Date: 2024-09-26

项目project	LP10-FPC	客户名称 Customer name	瑞扩科技Ruikuo Technology
供应商vendor	凯普深通讯Cap Deep Communications	国家测试标准 National testing standards	GB/T 2423.2-2008
试样情况Sample situation	试样数量Number of specimens: 5PCS		
试验时间Test time	共计 A total of 24 h		
试验类型: Test Type:	☒ NSS	☐ ASS	☐ CASS
试验条件Test Conditions	盐溶液Saline solution: 5%		PH:7.0
	箱内温度Temperature inside the box: 35° C		相对湿度relative humidity: 85%
	喷雾方式Spray method: ☒ 连续Spray continuously ☐ 间歇intermission		压缩空气压力Compressed air pressure: 1kg/cm²
	盐雾沉降率Salt spray sedimentation rate: 1-2ml/80cm2/h		雾液收集Fog liquid collection: 1.4ml/80cm2/h
	试验周期: __1__个循环 Test period: __1__ cycles		喷雾时间Spray time: 24 h
试验结果 Test results	试验后的外观: 外观完整无损, 无明显变化。Appearance after test: The appearance is intact and undamaged, with no obvious changes.		
	镀层: 无剥落、无锈蚀 Plating: no peeling, no rust		
	表面喷涂、丝印: 无脱落、无气泡。Surface spraying, silk screen printing: no peeling, no bubbles.		
说明: 1、盐雾试验作业标准依照中华人民共和国国家标准GB/T2423.17-2008执行 2、试件结果判定标准依照中华人民共和国国家标准GB/T6461-02执行Table description: 1. The salt spray test operation standard shall be implemented in accordance with the national standard of the People's Republic of China GB/T2423.17-2008 2. The test result judgment standard shall be implemented in accordance with the national standard GB/T6461-02 of the People's Republic of China			
试验员/日期: 何野Tester/Date: He Ye 审核/日期: 巫星托Review/Date: Wu Xingtuo			

包装方式（Packing）

客户名称 Customer name:	瑞扩科技Ruikuo Technology	物料名称Item name:	LP10-FPC antenna
包装数量Package quantity:	1 case	包装材料 Packaging materials:	纸箱carton
装箱数量Quantity of boxes:		包装方式Packing method:	封口袋包装Sealed bag packaging



Figure 1: Single piece packaging



Figure 2: Single piece packaging



Figure 3: Box view (front, side, top)



Figure 4: Outer carton label

拟制：李明慧Draft：Li Minghui

审核：巫星托Review：Wu Xingtuo