

样品承认书

Confirmation of products

客户名称 Customer	深圳市杰科数码有限公司				
项目名称 Project Name	K3D&K6D	版本 Version	A. 3	日期 Date	2025-12-27
项目料号 Project NO.	34. 12. 02. 004	客户料号 Customer NO.			
频段 Frequency Range	2400~~2500MHz	备注 Notes	版本号：V1.0，修改线长		
设计 Designed By	田秋奎 王宇 张海燕				
审核 Approved By	解瑞洁				
客户确认 Clients' Approval					

公司名称：深圳市林荣科技有限公司
Designer: SHENZHEN LINRONG TECHNOLOGY CO.,LTD

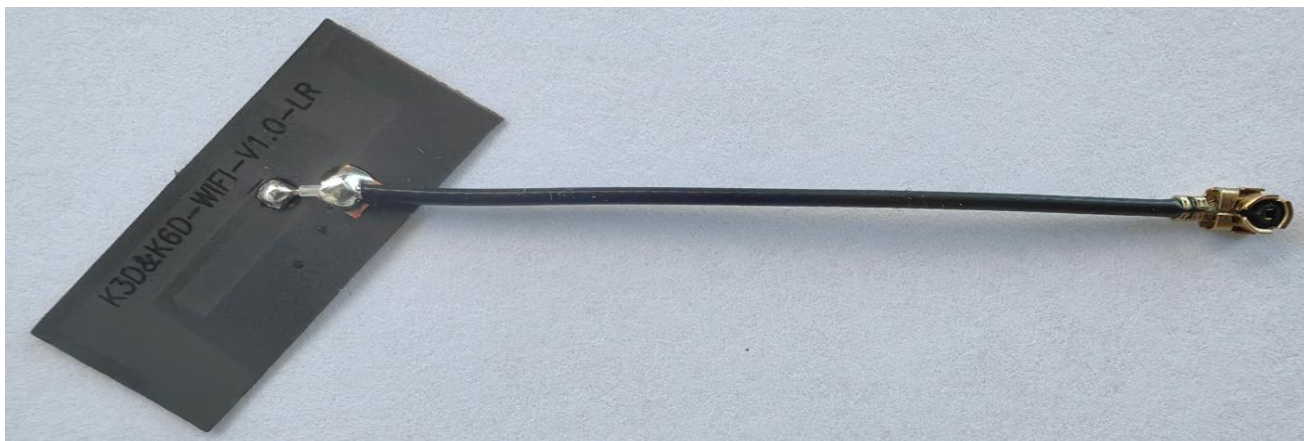
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ADD: Floor 3, building 1, LianJian Industrial Park, Huarong Road, Dalang street, Longhua District, Shenzhen

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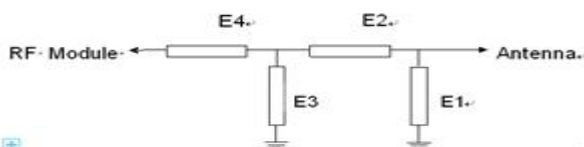
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1、Specification

This report mainly provides the testing conditions of various electric and structural performance parameters for cell phone antenna ----K3D&K6D Picture 1 shows the antenna designed by LR.



2 、 Matching circuit diagram



Element	Value
E1(0201)	
E2(0201)	0欧姆
E3(0201)	
E4(0201)	0欧姆

3、 VSWR Testing

3.1 Testing connection

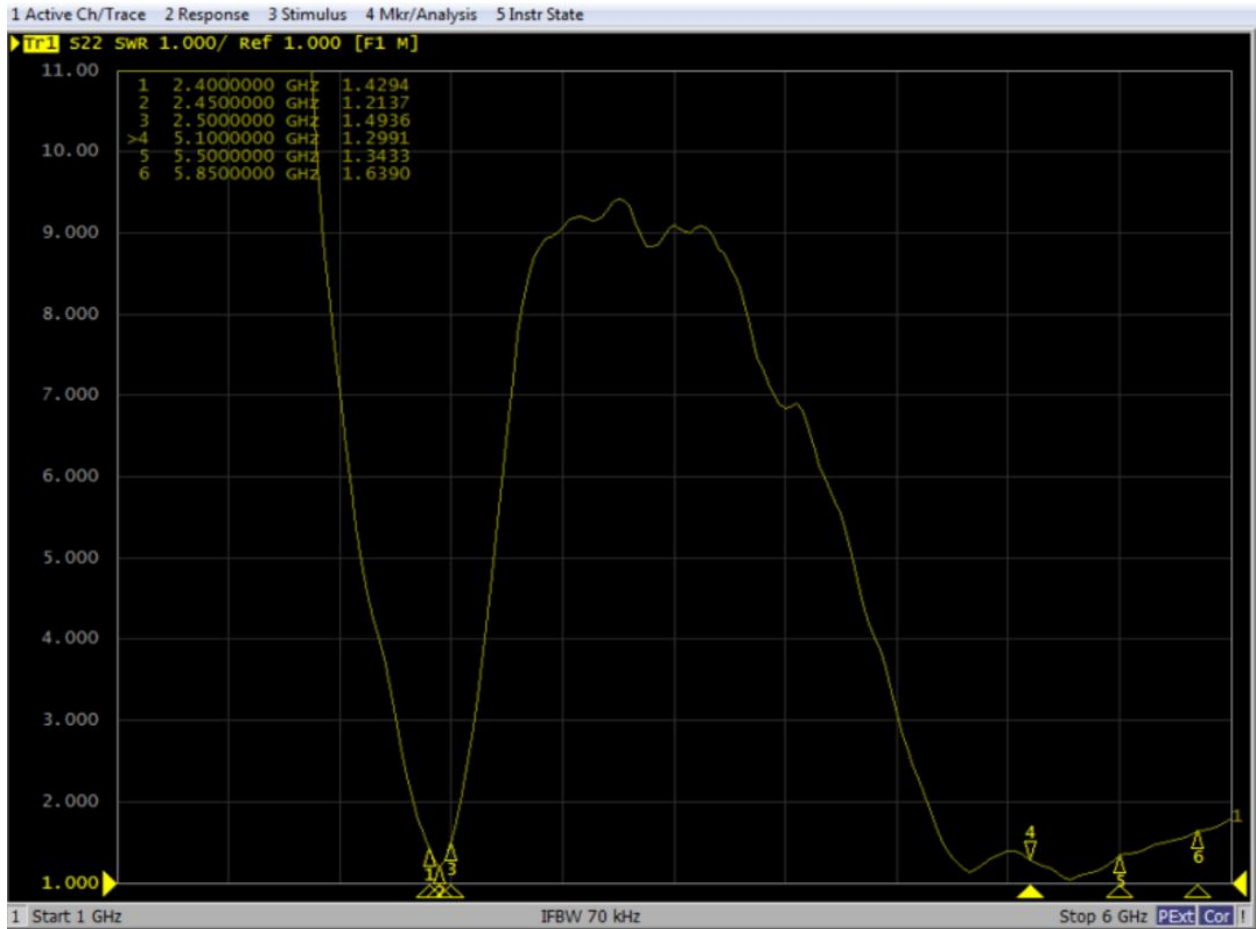
The VSWR testing devices are connected in sequence: Agilent5071C Network Analyzer →Testing Cable → Customer-providing Devices.

3.2 VSWR

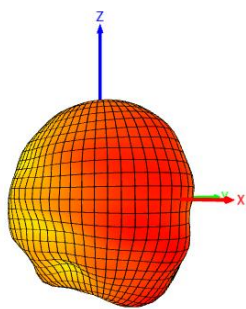
The following table expresses the VSWR value of antenna's two edges of its frequency range. With regard to the relevant diagram of VSWR

K3D&K6D WIFI VSWR						
Frequency (MHz)	2400	2450	2500	5100	5500	5800
VSWR	1.42	1.21	1.49	1.29	1.34	1.63

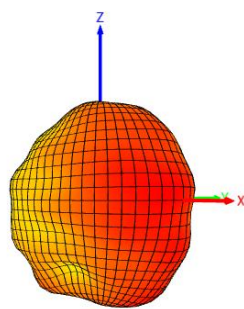
3.3 Testing data



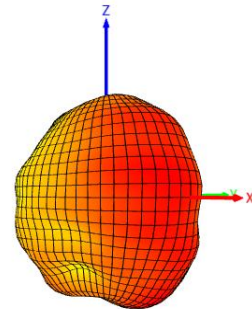
K 3D&K6D antenna VSWR



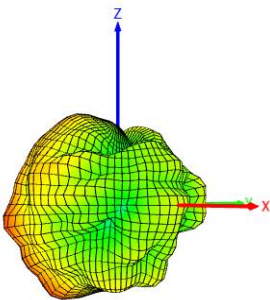
2400MHz



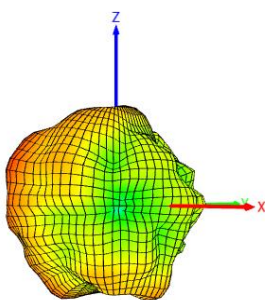
2450MHz



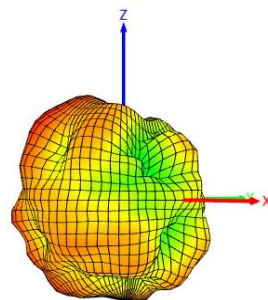
2500MHz



5100MHz



5500MHz



5800MHz

4、Test the efficiency of the antenna Testing

4.1 Testing field

LR Microwave Anechoic Chamber : testing frequency ranges from 400MHz to 6GHz and the 40cm diameter spherical quiet zone, the chamber provides less than -90dB reflectivity from 400MHz—6GHz.

4.2 Testing results

The following table indicates the testing results related to Power and Sensitivity in Microwave Anechoic Chamber, concerning the relative diagram.

K3D&K6D Antenna efficiency:

Freq(MHz)	Gain(dBi)	Efficiency(%)	Freq(MHz)	Gain(dBi)	Efficiency(%)
2300	0.34	39.47	5160	4.55	53.07
2310	0.34	40.46	5180	4.35	51.06
2320	0.47	41.14	5200	4.27	51.25
2330	0.54	43.37	5220	4.18	51.67
2340	0.58	44.91	5240	4.51	52.80
2350	0.72	45.90	5260	4.66	52.75
2360	0.83	47.11	5280	4.74	53.17
2370	0.75	47.35	5300	4.40	53.41
2380	0.91	47.92	5320	4.04	52.94
2390	0.96	48.44	5340	3.67	51.84
2400	1.07	49.17	5360	3.91	52.41
2410	1.22	49.51	5380	4.05	50.82
2420	0.79	49.87	5400	4.28	50.02
2430	0.88	50.66	5420	4.42	52.79
2440	0.90	51.36	5440	4.19	52.48
2450	1.11	52.61	5460	4.08	52.33
2460	1.23	53.35	5480	3.90	51.66
2470	1.51	54.74	5500	3.49	49.70
2480	1.71	56.32	5520	3.02	48.34
2490	1.79	57.90	5540	3.63	49.10
2500	1.84	58.19	5560	4.38	49.18
2510	1.58	58.12	5580	4.64	49.62
2520	1.43	57.91	5600	4.27	47.85
2530	1.40	56.47	5620	3.60	46.64
2540	1.17	55.44	5640	2.68	45.27
2550	1.03	54.20	5660	2.41	45.11
2560	1.08	53.45	5680	2.08	44.40
2570	1.00	52.00	5700	2.05	42.96
2580	0.85	49.66	5720	2.15	41.24
2590	0.82	46.37	5740	2.53	40.37
2600	0.53	42.21	5760	2.33	38.25
5100	4.71	55.70	5780	1.57	36.35
5120	4.88	55.99	5800	0.20	35.39
5140	4.78	54.38			

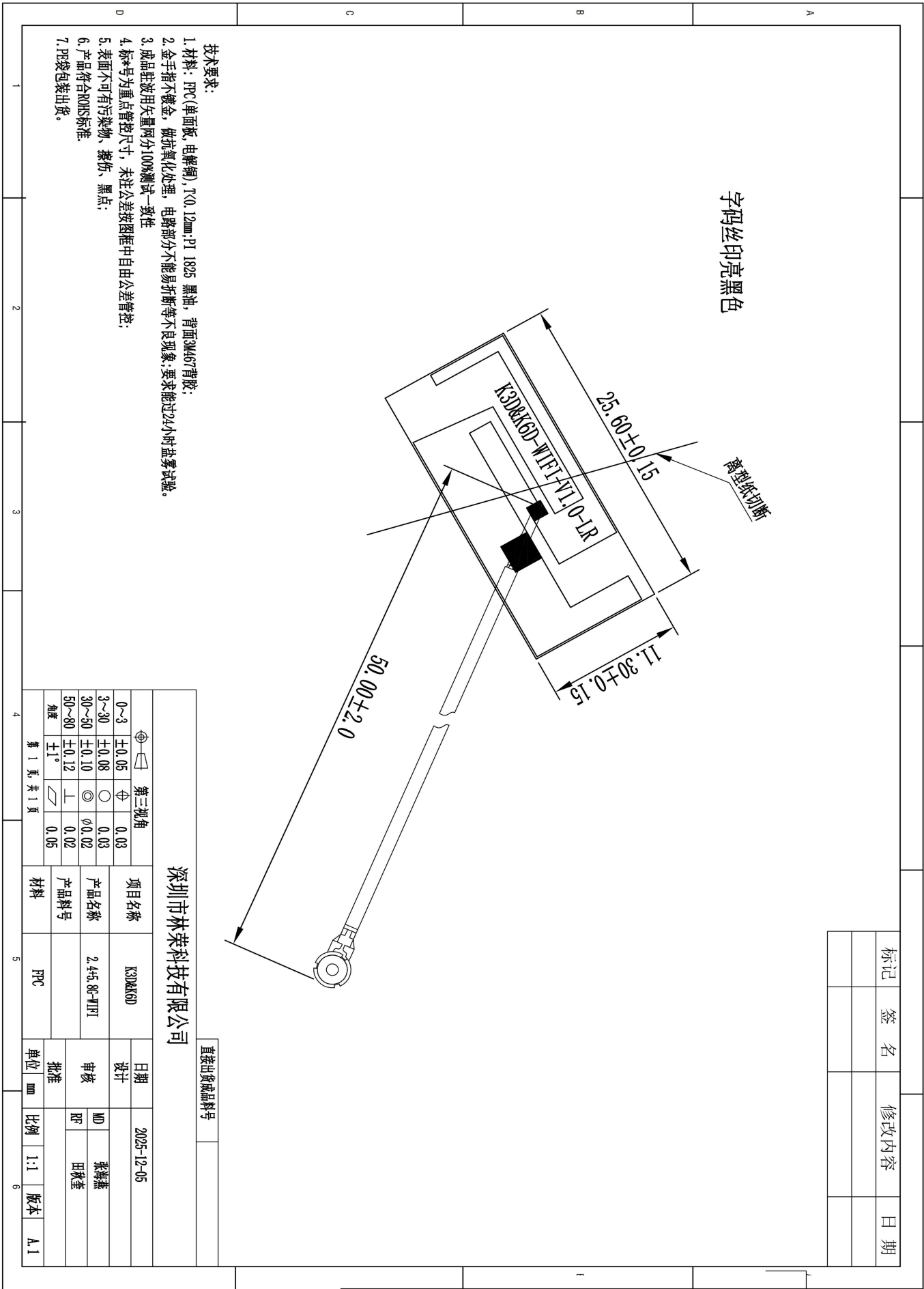
K3D&K6D Active data:

	CN	TRP	TIS
11M-11B	1	14.45	-82.69
	6	14.78	-82.74
	11	15.71	-81.86
54M-11G	1	13.09	-71.12
	6	13.86	-71.01
	11	14.21	-71.61
65M-11N	1	13.32	-61.68
	6	13.55	-61.86
	11	14.37	-61.74

5、Environmental treatment

Original machine environment status

6、Mechanical Dimension Drawing



7. Mechanical Dimension Testing report

全尺寸测量报告

Vendor(供应商)		材质名称		PPC		Part NO(料号)		34.12.02.004		Tool Number (模号)		Cav. Number(穴数)		Unit(单位)		Quality(品质签字)										
林荣科技		材质牌号		/		Part Name (零件名称)		WiFi天线		/		/		☒ MILLIMETERS ☐ INCHES		72.14.24										
日期		2025/12/15				MEASURED DIMENSION(实测尺寸)						% TOLERANCE USED (公差使用百分比)				DISPOSITION				ACCEPTABLE VARIANCE						
DIM. #	DIMENSION	DRAWING ZONE		+ TOL.	- TOL.	NOTE		SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4	SAMPLE 5	UPPER	LOWER	0%-25%	25%-50%	50%-75%	75%-100%	100%+	Re-Measure	Accept	Fix Tool	Accept With Variance	DIMENSION	+ TOL.	- TOL.
1	50.00			2.00	(2.00)			51.00	50.00	49.00	51.00	50.00	50%	-50%	X		X							50.00	51.00	49.00
2	25.60			0.15	(0.15)			25.50	25.52	25.58	25.51	25.50	0%	-67%	X									25.60	25.58	25.50
3	11.30			0.15	(0.15)			11.26	11.28	11.27	11.29	11.25	0%	-33%	X									11.30	11.29	11.25
4	1.13			0.05	(0.05)			1.12	1.12	1.13	1.12	1.13	0%	-20%	X									1.13	1.13	1.12
6	以下空白																									
7																										
8																										
9																										
10																										
11																										
12																										
13																										

备注：除了上述标注的填写内容外，须输入的内容：
1. DIMENSION, +TOL, -TOL, SAMPLE1, SAMPLE2, SAMPLE3
2. 注意1中描述的内容输入时，请：
a. 在%TOLERANCEUSED(公差使用百分比)中无论是UPPER还是LOWER>100%，须：
(1) 检查输入数据是否输入错误；(2) 测量数据是否有误或是仪器测量不准确；(3) 测量时间是否不适宜；(4) 排除了(1)(2)(3)外，仍然>100%，请设计师对每个尺寸的后面作出选择即从“Re-measure, Accept, Re Tool, Accept Vitrance”中选一，若是选Accept with vitrance, 必须完成后面的Dimension, +TOL, -TOL；
b. DIMENSION栏中的即尺寸前一栏中的DIM.#必须与图面上的一致；同时注意，在作Cpk的尺寸的编号与FAI全尺寸测量报告中的尺寸的编号必须是相同的，且Cpk尺寸必须被用符号标注，此标注号必须表示的意思是：指该尺寸为重点管控尺寸，要做Cpk！
c. 测量工具代号Measure No.：A=callipers(0.00) B=micrometer(0.000) C=Pin Guage(0.000) D=High Guage(0.000) E=CMM(0.000) F=Plug Guage(0.00) G=R Guage(0.0) I=Deep Guage(0.000)

8、 Packaging standard

包装说明：具体包装数量以实物为准，图片只显示包装的方式，并非此项目实物。

Packaging Description: the specific packaging quantity is subject to the physical object. The picture only shows the way of packaging, not the physical object of the project



天线用 PE 袋包装

The top cover board, with PE film packaging



防潮防水 PET 袋封装，放于纸箱内

Moistureproof waterproof PET bag packaging,
Put in the cartons



纸箱用胶带封口

Carton sealing with duct tape



包装箱整箱外观 ()

Cases appearance