深圳市飞讯联科电子有限公司

规　格　书

SPECIFCATION

产品资料
产品名称:WIFI天线(PCB)
产品型号:FXLK-PBCL111V1-IX1-110-A
规格摘要:PCB板是CL111V1，线材是1.13线径，灰色，线长110mm，焊FPC端比例：1：2：2，客户端为一代端子

公司地址：**深圳宝安西乡九围金翔富工业园A2栋5楼**

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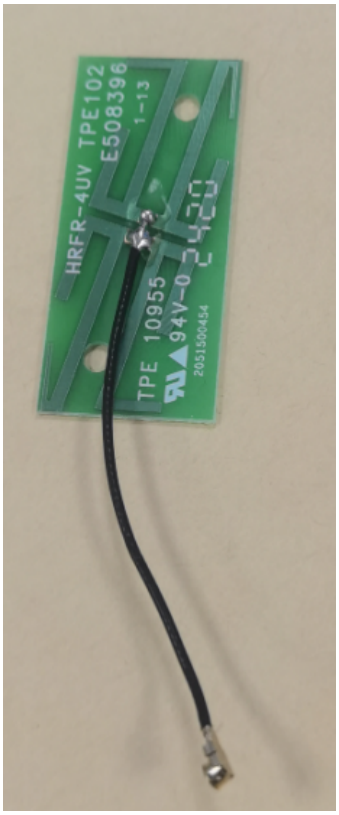
2.4GHz&5GHz ISM Band Frequency

天线实物图：



Descriptions

This antenna is designed for 2.4G&5G ISM Band. Both of wireless LAN IEEE 802.11b/g/n/A ,Bluetooth and Zigbee .This Antenna provides a high Efficiency and good performance

Following features:

- IEEE 802.11 b/g/n/A standards
- Single Band working
- -1.16dBi peak gain @2.45GHz
- 1.81dBi peak gain @5.8GHz
- Case mount
- Easy integration

Applications

- Wireless LAN
- ISM band 2.4&5GHz wireless applications
- BlueTooth
- Zigbee

Electrical Specifications

Item	Specification
Frequency Range	2.4 GHz ~ 2.5GHz,5 GHz ~ 5.8GHz
Peak Gain	0.9dBi @ 2.4GHz,1.81dBi @5.8GHz
VSWR	2 max.
Polarization	Linear
Feed Impedance	50Ω
Power handling	30dbm
Operation Temperature	-40°C ~ +85°C

Antenna Test Environment：

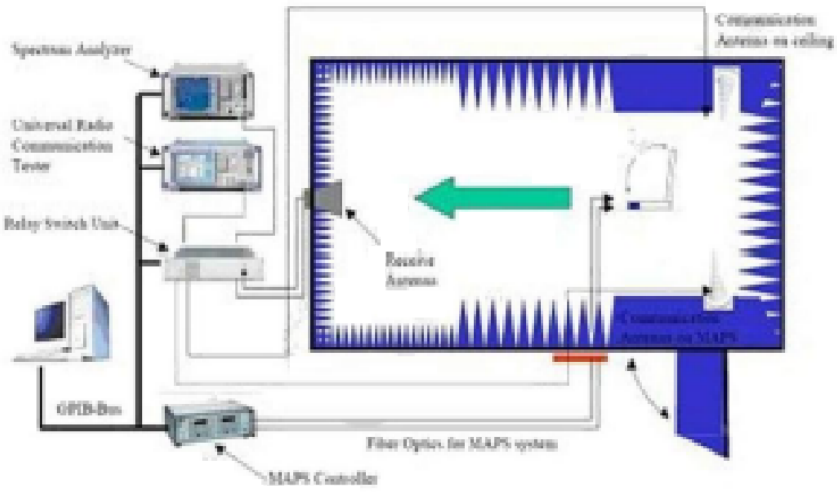
1. Network Analysis:

Agilent 8753ES 5071C

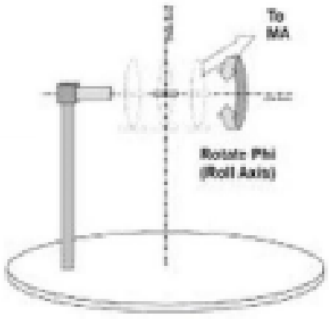
2. RF Test Equipment:

Agilent 8960 CMW500

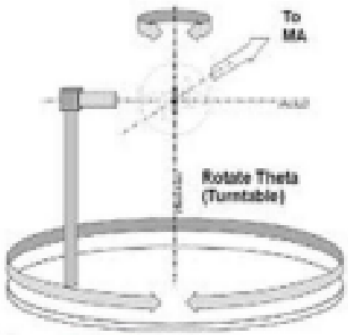
3. Shielding Rom Test Environment:



(Testing by 3D anechoic chamber)



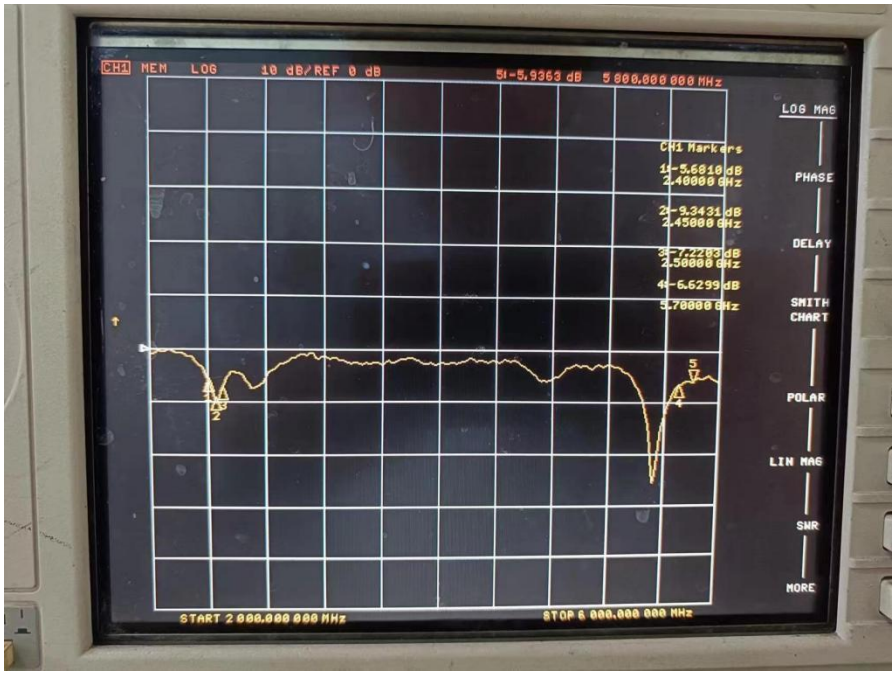
Phi axis test



Theta axis test

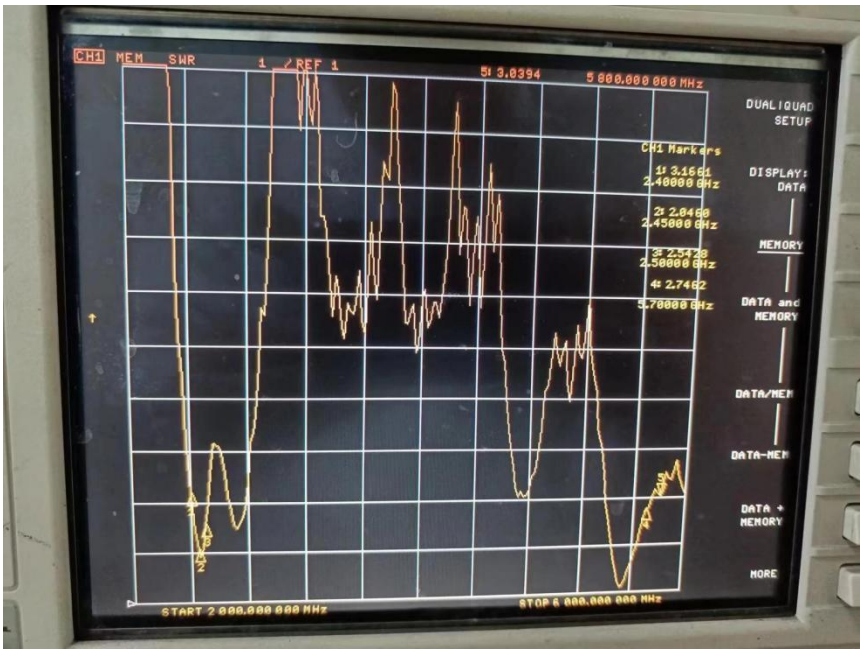
天线无源数据参数:

传导测试 S11 Return Loss 如下 图片:



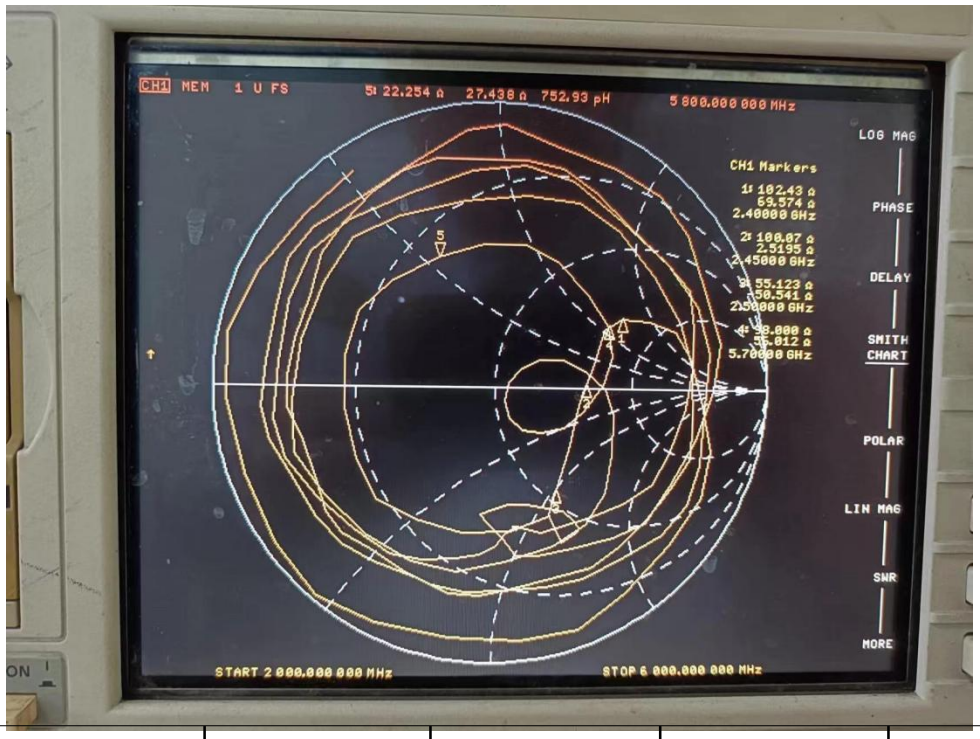
S11 RETRUN LOSS	2400MHz	2450MHz	2500MHz	5700MHz	5800MHz
dB	-5.60	-9.34	-7.22	-6.62	-5.93

传导测试 S11 VSWR 测试如下图片:



VSWR	2400MHz	2450MHz	2500MHz	5700MHz	5800MHz
	3.16	2.04	2.54	2.74	3.03

传导测试 Smith Chart 测试如下图片:



IMPADANCE	2400MHz	2450MHz	2500MHz	5700MHz	5800MHz
OHM	**102.4**	**100.0**	**55.12**	**38.00**	**22.25**

Antenna Gain and Efficiency Test Results

2.4G&5G Gain and Efficiency

Freq (MHz)	Effi (%)	Gain (dBi)
2400	25	-1.21
2410	23.91	-1.75
2420	24.86	-2.05
2430	28.25	-1.45
2440	32.82	-0.69
2450	28.81	-1.16
2460	33.96	-0.37
2470	37.13	0.07
2480	38.41	0.21
2490	41.82	0.58
2500	43.51	0.9

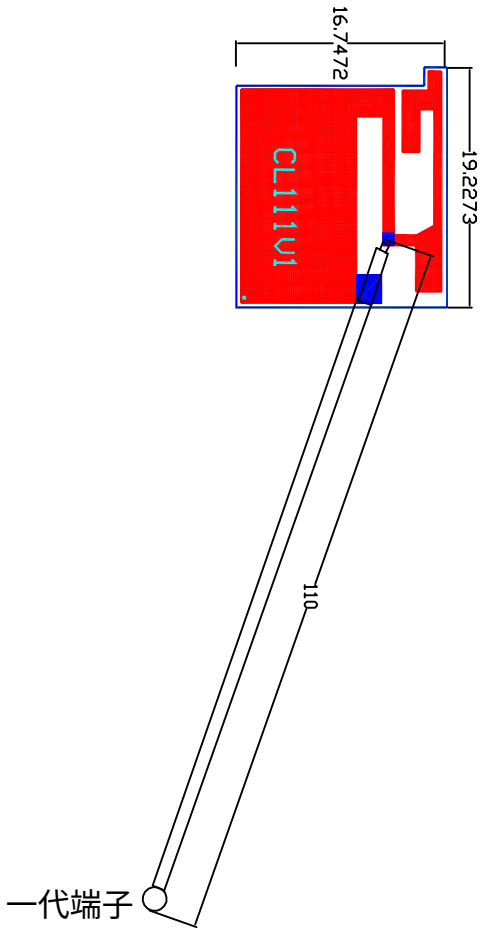
Freq (MHz)	Effi (%)	Gain (dBi)
5150	40.78	1.3
5200	42.72	1.44
5250	45.91	1.32
5300	41.13	1.4
5350	44.85	1.45
5400	42.25	1.66
5500	49.98	1.55
5600	44.62	1.63
5700	43.66	1.68
5750	43.99	1.73
5850	41.54	1.81

The Feed Cable Parameter

Electrical characteristics

Item	**Standard value**	**Item**	**Frequency**	**standard Value Unit:dB/m**
Capacitance(pF/m)	98	Attenuation	1GHz	≤2.2
Velocity(%)	70		2GHz	≤3.1
Impedance(Ω)	50±2		3GHz	≤3.8
Standing wave ratio	≤1.3@0~6GHz		4GHz	≤4.4
Max.operating voltage(V)	1000		5GHz	≤4.9
Max.operating frequency(GHz)	**6**		6GHz	≤5.4

Dependability

ITEM	**Unit**	**Standard value**
Min.bending radius static	mm	/
Operating temperature	℃	-40°C ~ +85°C

天线图纸：