

Shenzhen Feixun Lianke Electronics Co., Ltd

Acknowledgment Letter

SPECIFICATION

Product Information
Product name:WIFI ANT(PCB)
model:FXLK-PBCL111V1-IX1-110-A

Company Address: 5th Floor, Building A2, Jinxiangfu Industrial Park, Jiuwei, Bao'an West Township, Shenzhen

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Contact person: Yu Guanghui

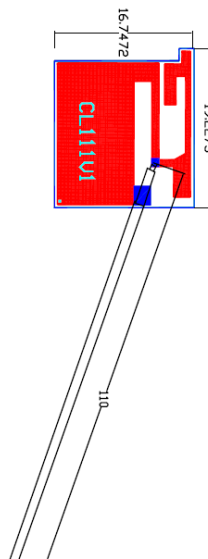
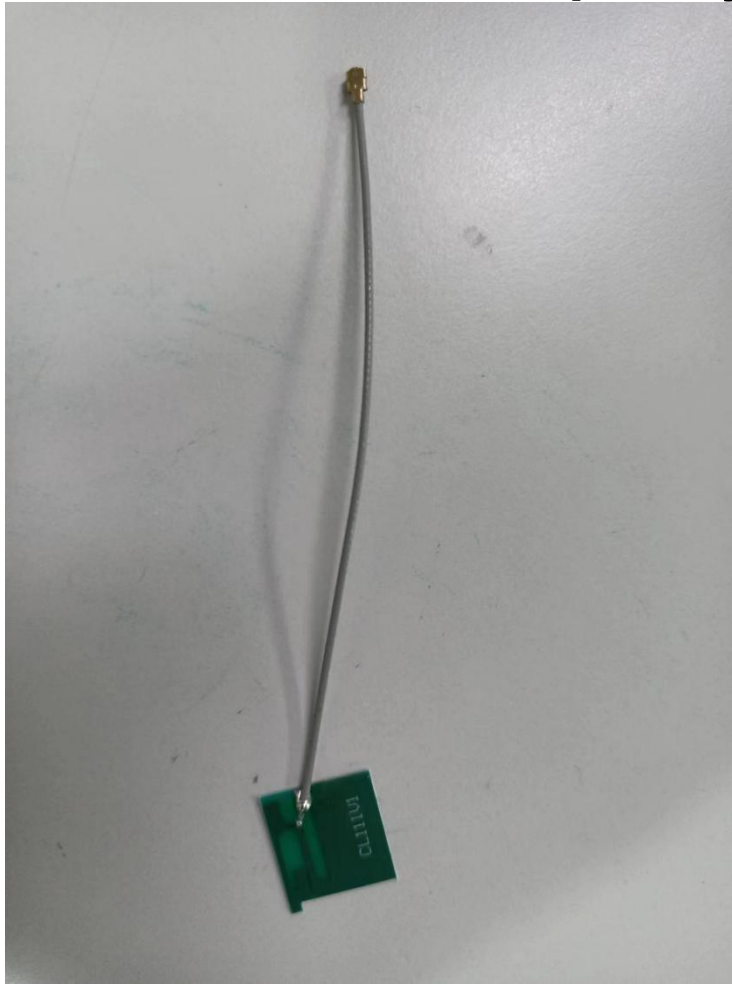
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2.4GHz&5GHz ISM Band Frequency



size: 16.7472mm*19.2273mm



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
- ◆ 0.58dBi 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	0.58dBi @ 2.45GHz, 1.81dBi @ 5.8GHz
VSWR	2 max.
Polarization	Linear
Feed Impedance	50Ω
Power handling	30dbm
Operation Temperature	-40°C ~ +85°C

Antenna Test Environment;

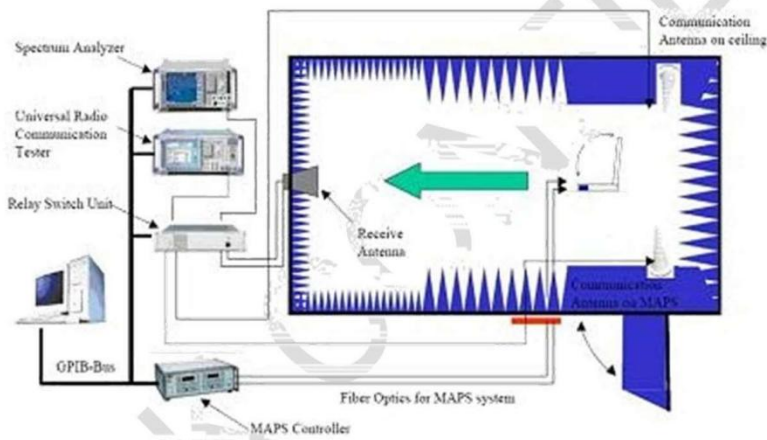
1. Network Analysis:

Agilent 8753ES 5071C

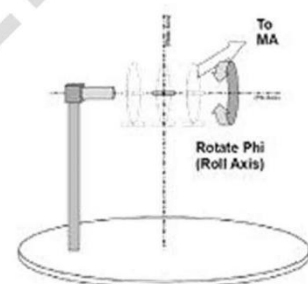
2. RF Test Equipment:

Agilent 8960 CMW500

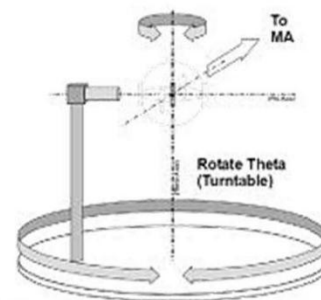
3. Shielding Rom Test Environment:



(Testing by 3D anechoic chamber)



Phi axis test



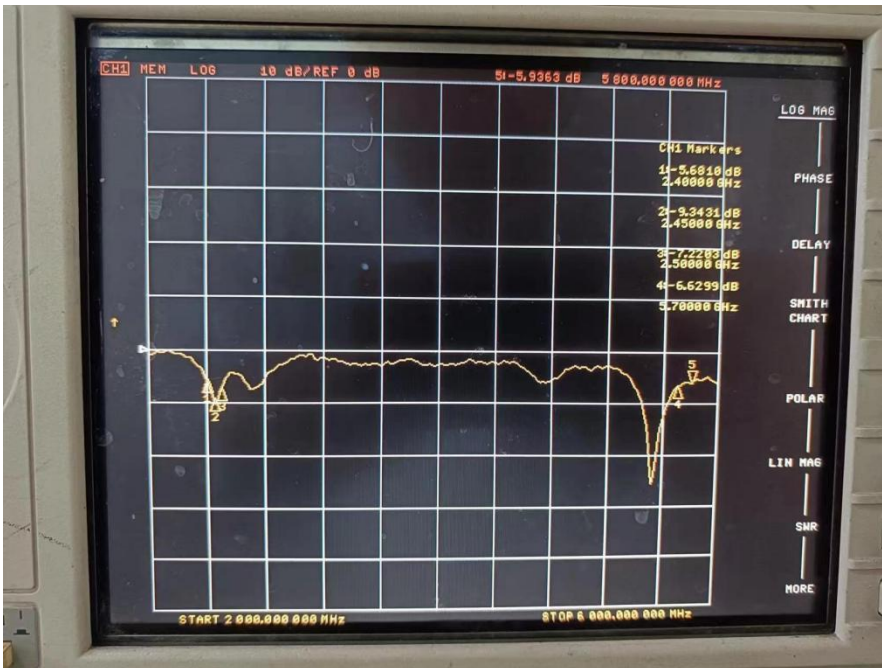
Theta axis test



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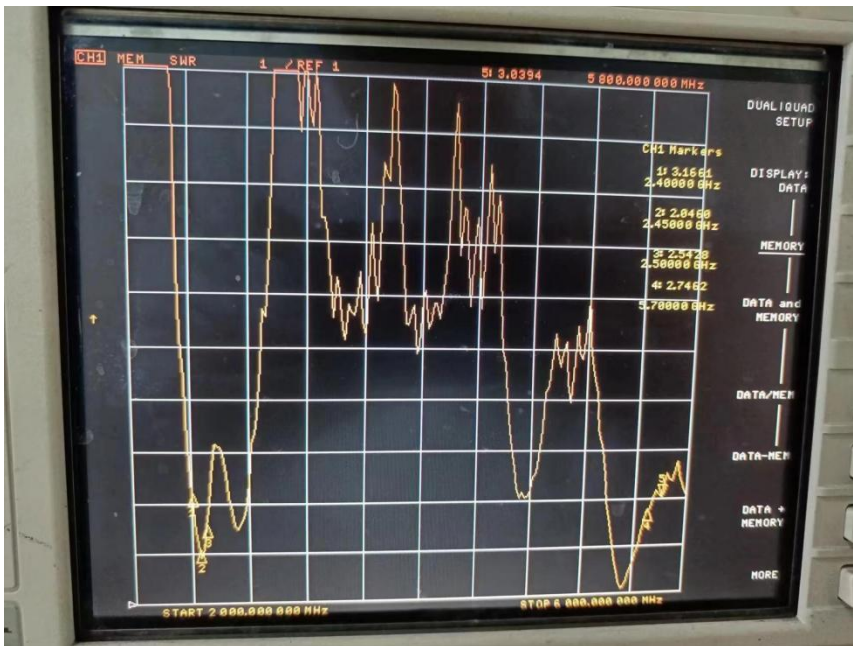
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S11 Return Loss :



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

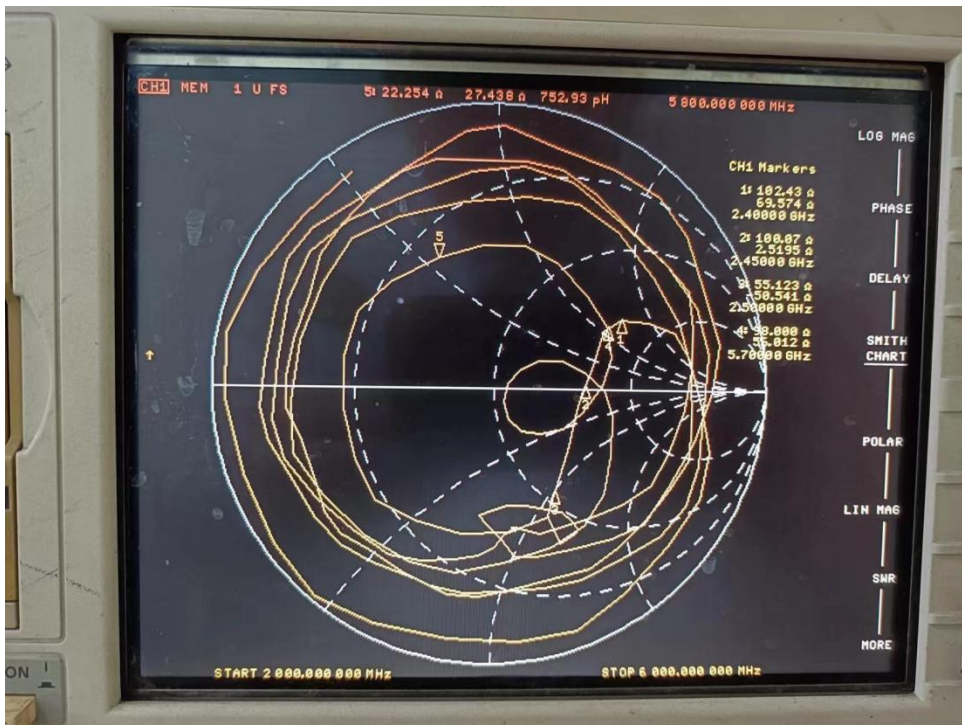
S11 VSWR :



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



Smith Chart :



IMPADANC E	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)
5700	40.78	1.3
5710	42.72	1.44
5720	45.91	1.32
5730	41.13	1.4
5740	44.85	1.45
5750	42.25	1.66
5760	49.98	1.55
5770	44.62	1.63
5780	43.66	1.68
5790	43.99	1.73
5800	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	°C	-40°C ~ +85°C