



Shenzhen Feixunlianke Electronics Co., Ltd.

SPECIFICATION

Product information
Product name: WIFI antenna (PCB)
Product model:FXLK-PBCL111V1-IX1-110-A
Specification summary: PCB board is CL111V1, wire is 1.13 wire diameter, gray, wire length is 11mm, solder FPC end ratio: 1:2:2, client is a first-generation terminal.

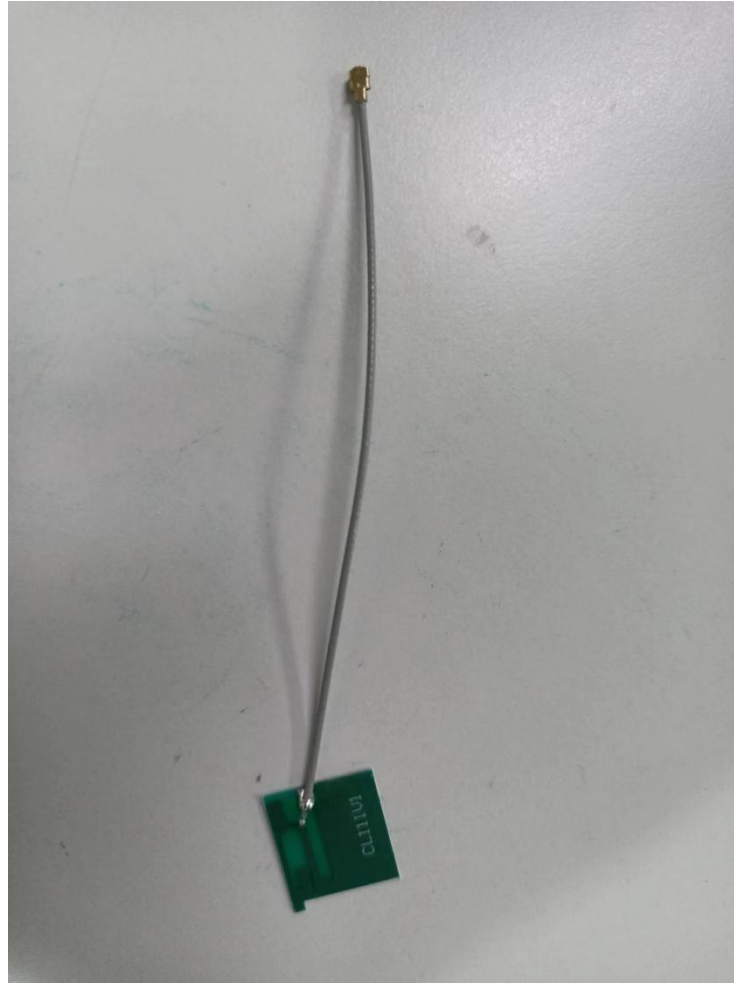
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2.4GHz&5GHz ISM Band Frequency

Antenna photo:





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	-1.16dBi @ 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

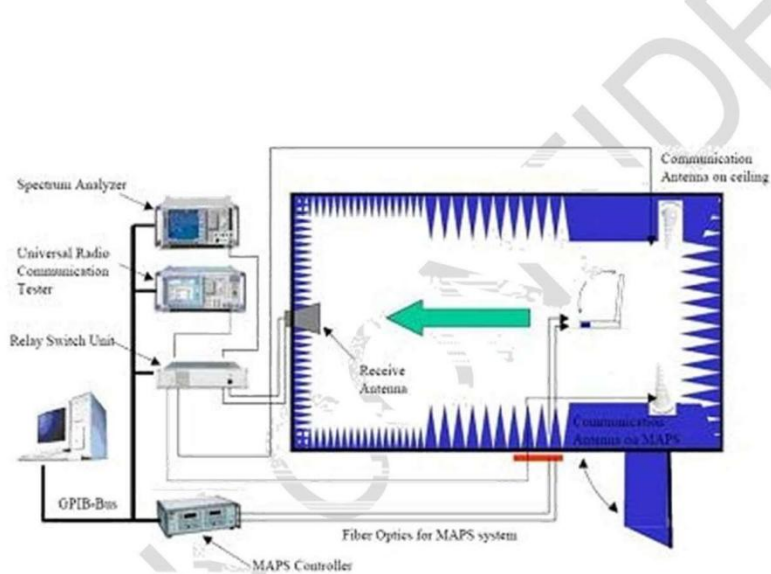
5071C

2. RF Test Equipment:

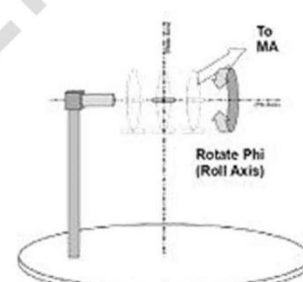
Agilent 8960

CMW500

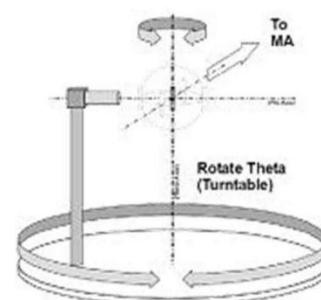
3. Shielding Rom Test Environment:



(Testing by 3D anechoic chamber)



Phi axis test



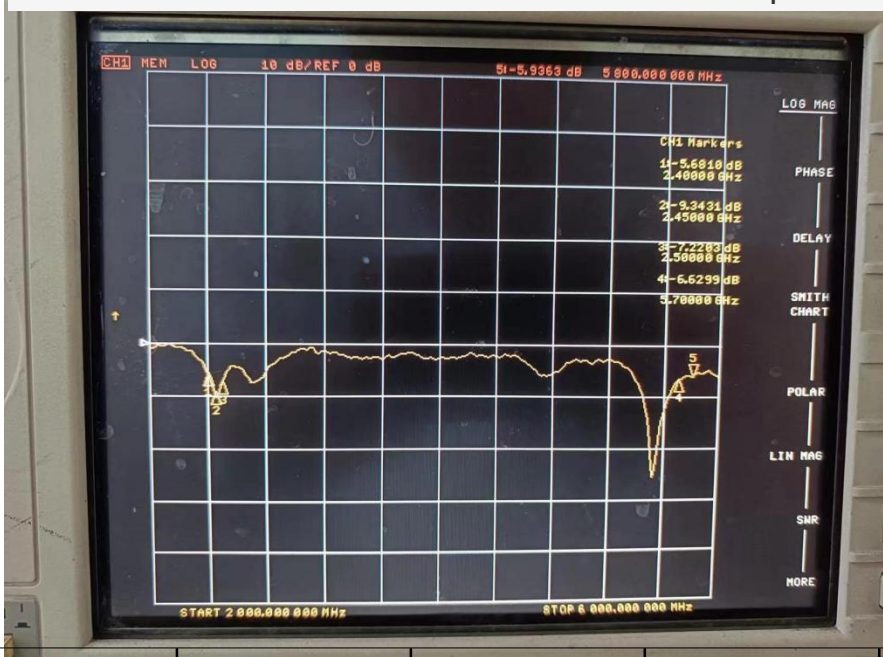
Theta axis test



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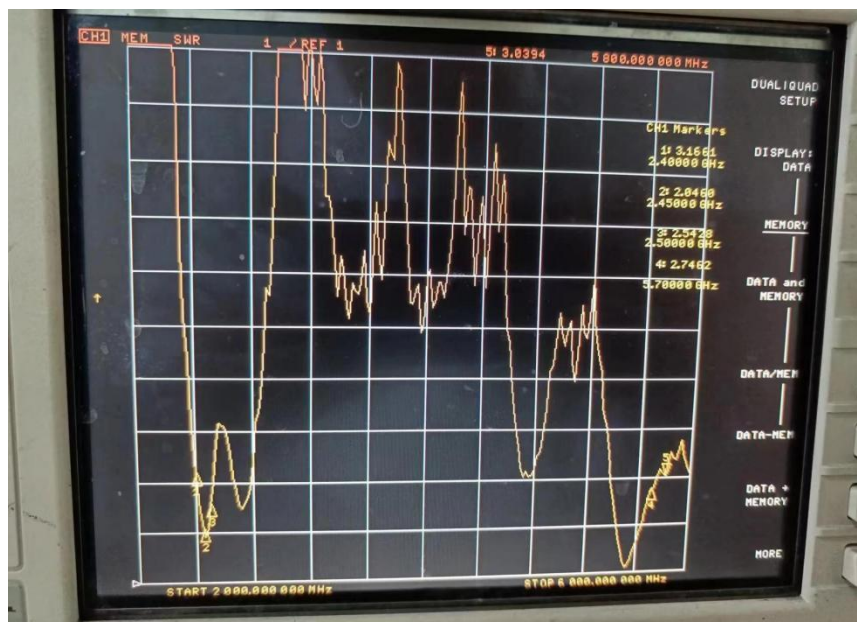
Antenna passive data parameters:

Conduction test S11 Return Loss As shown in the picture:



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

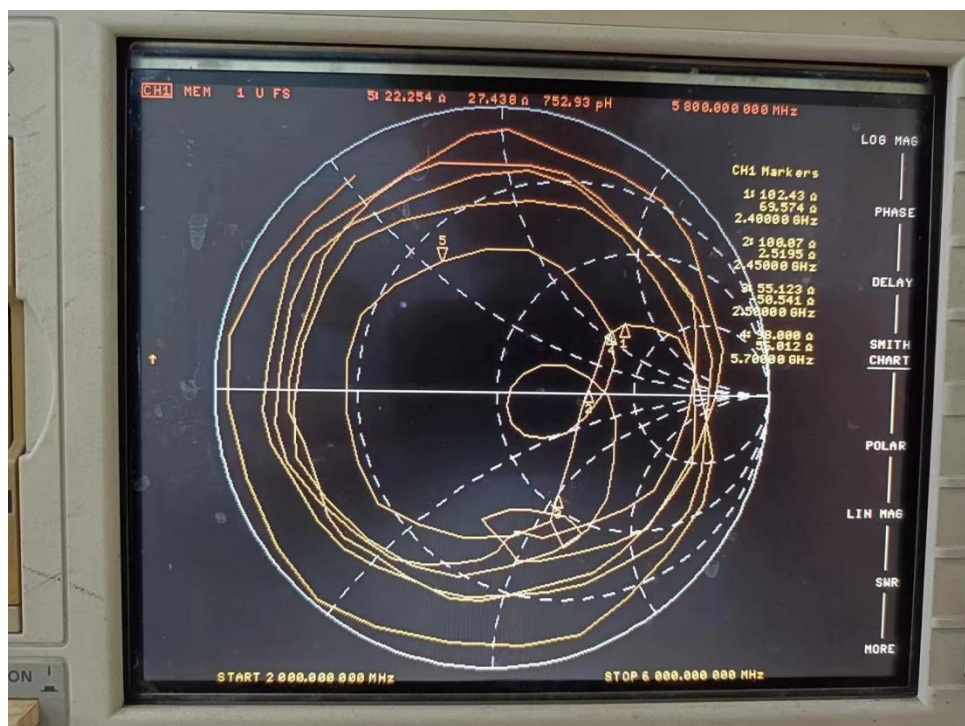
Conduction test S11 VSWR test as shown in the following picture:



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



Conductive test Smith Chart test as shown in the following picture:



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)
5000	40.78	1.3
5100	42.72	1.44
5200	45.91	1.32
5300	41.13	1.4
5400	44.85	1.45
5500	42.25	1.66
5600	49.98	1.55
5700	44.62	1.63
5800	43.66	1.68
5900	43.99	1.73
6000	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

Antenna drawing:

