

Shenzhen Feixun Lianke Electronics Co., Ltd

SPECIFICATION

Supplier confirmation

Proofreading	review	approval
Huang Zhixiong	Yu Guanghui	Zhang Dongxiao

Buyer's confirmation

Proofreading	review	approval
conclusion:		

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

Company Phone: 0755-32936320 **Company Fax:** 0755 - 32936320

Contact person: Yu Guanghui **Contact phone number:** thirteen billion seven hundred and fifteen million three hundred and fifty-seven thousand six hundred and sixteen

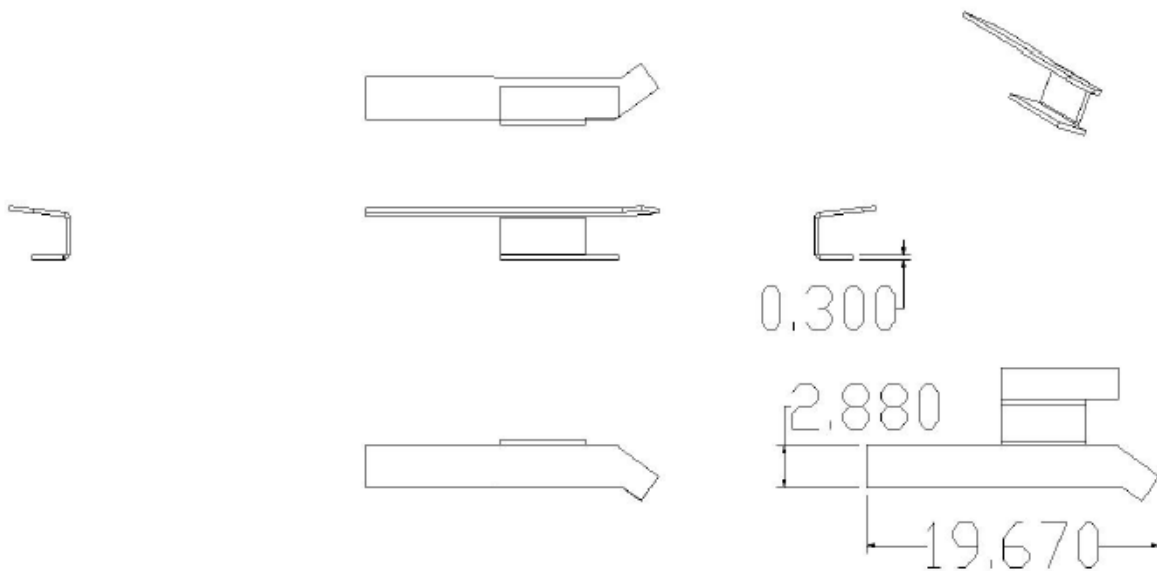
website: www.feixunlianke.com/ **E-mail:** ygh7616@163.COM



Shenzhen Feixun Lianke Electronics Co., Ltd

2.4GHz&5GHz ISM Band Frequency

Physical image of antenna:





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
- ◆ 2.89dBi peak gain @2.45GHz
- ◆ 2.88dBi peak gain@ 5.1GHz
- ◆ 2.42dBi 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	2.89dBi @ 2.45GHz, 2.88dBi @ 5.1GHz, 2.42dBi @ 5.8GHz
VSWR	2 max.
Polarization	
Feed Impedance	50Ω
Power handling	30dbm
Operation Temperature	-40°C ~ +85°C



Antenna Test Environment;

1. Network Analysis:

Agilent 8753ES

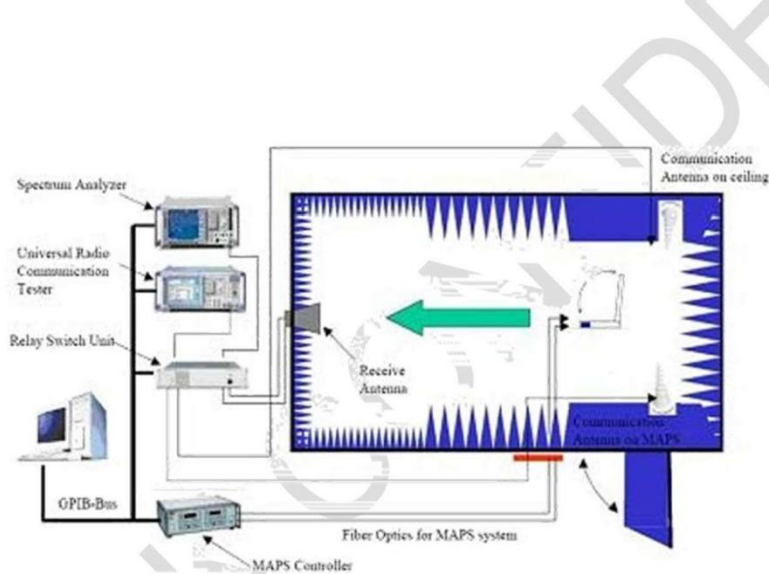
5071C

2. RF Test Equipment:

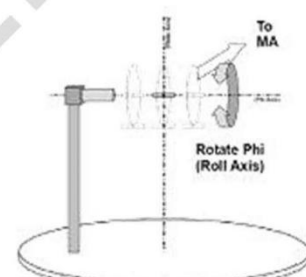
Agilent 8960

CMW500

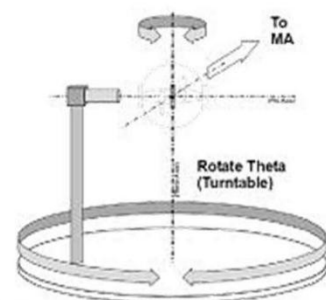
3. Shielding Rom Test Environment:



(Testing by 3D anechoic chamber)



Phi axis test



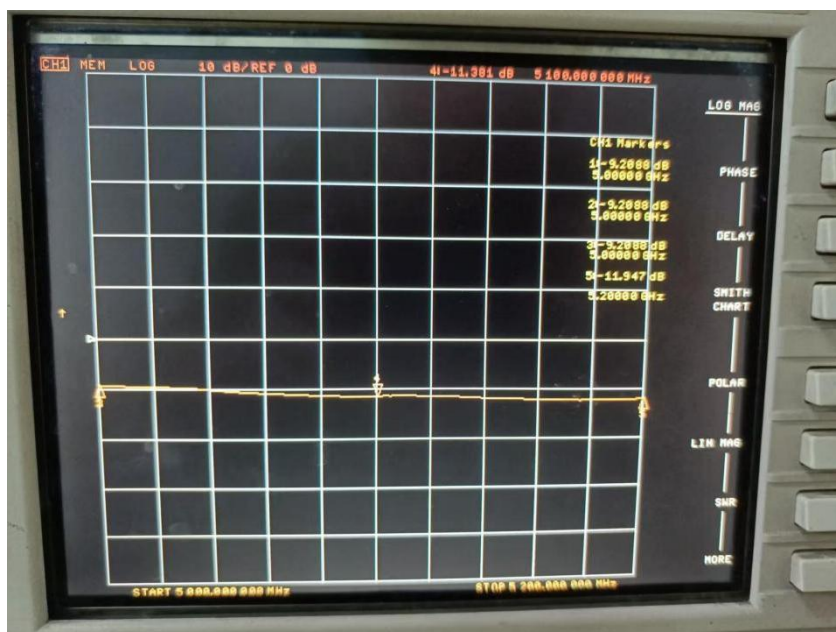
Theta axis test



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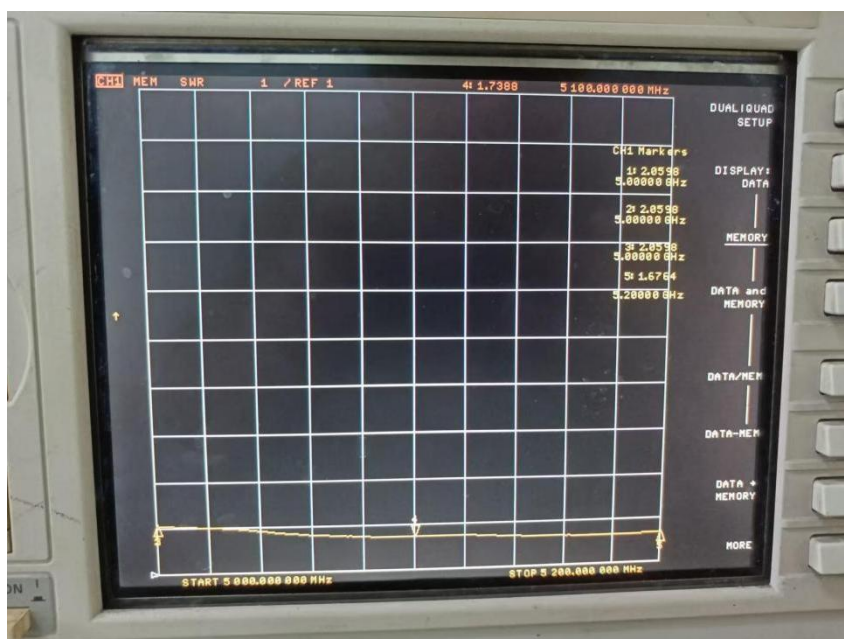
Passive data parameters of antenna: (increased by 5100MHz)

The conduction test S11 Return Loss is shown in the following picture:



S11 RETRUN LOSS	5100MHz
dB	-11.38

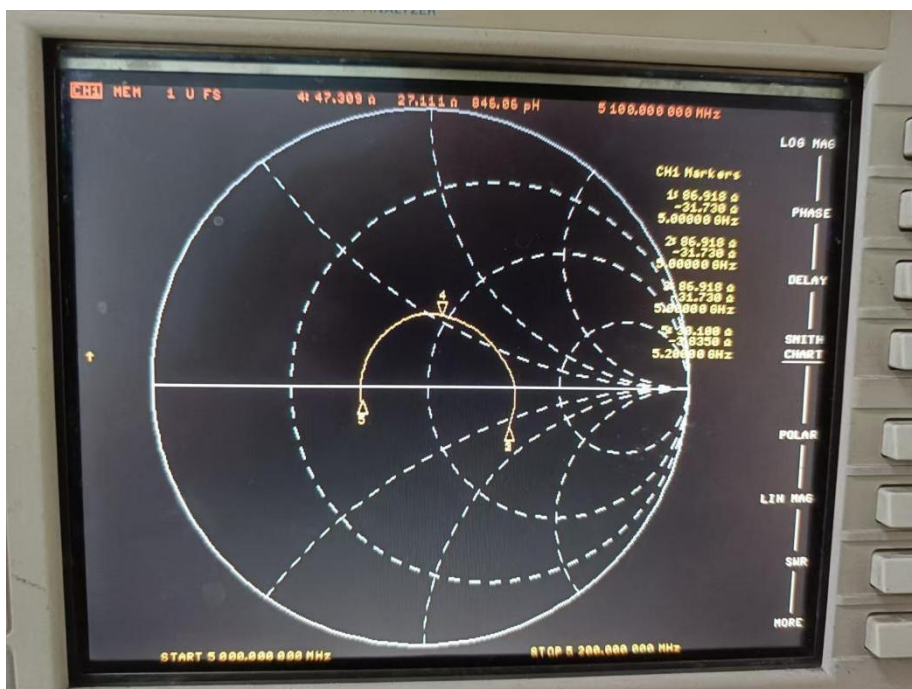
The conduction test S11 VSWR test is shown in the following picture:



VSWR	5100MHz
	1.73



The Smith Chart test for conductivity is shown in the following image:



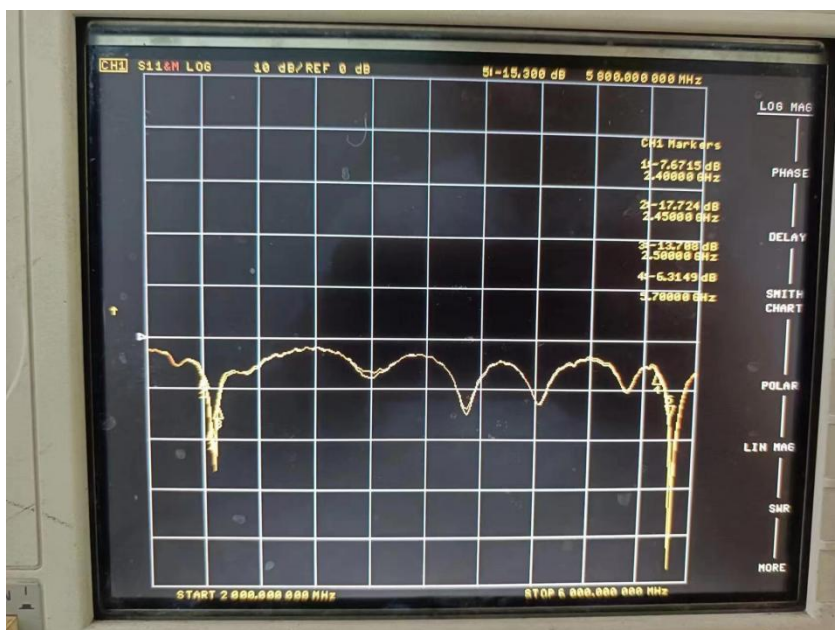
IMPADANCE	5100MHz
OHM	47.30

Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
5050	54.36	2.58	5150	53.47	2.00
5060	53.74	1.92	5160	55.66	2.16
5070	52.69	1.97	5170	54.84	2.22
5080	56.54	2.34	5180	55.55	2.67
5090	57.11	2.91	5190	53.91	2.71
5100	57.80	2.88	5200	56.79	2.87
5110	56.89	2.34	5210	54.97	2.54
5120	56.13	2.36	5220	58.61	2.42
5130	55.29	2.19	5230	54.88	2.34
5140	56.78	2.05	5240	55.74	2.88
5150	53.47	2.00	5250	56.98	2.65



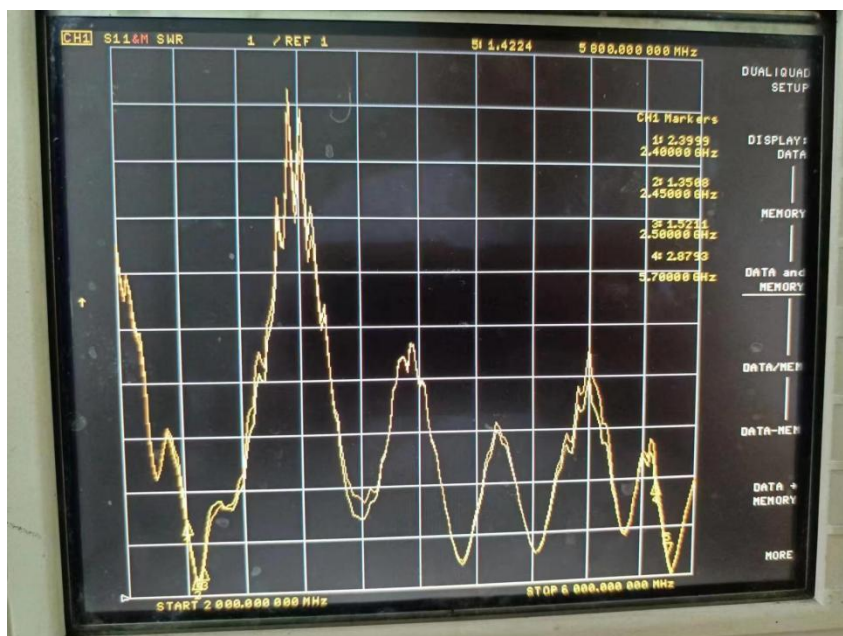
Passive data parameters of antenna:

The conduction test S11 Return Loss is shown in the following picture:



S11 RETRUN LOSS	2400MHz	2450MHz	2500MHz	5700MHz	5800MHz
dB	-7.67	-17.72	-13.70	-6.31	-15.30

The conduction test S11 VSWR test is shown in the following picture:



VSWR	2400MHz	2450MHz	2500MHz	5700MHz	5800MHz
	2.39	1.35	1.52	2.87	1.42



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The Smith Chart test for conductivity is shown in the following image:



IMPADANC E	2400MHz	2450MHz	2500MHz	5700MHz	5800MHz
OHM	30.14	40.83	56.14	32.19	67.30

Antenna Gain and Efficiency Test Results

BT Gain and Efficiency

Freq (MHz)	Effi (%)	Gain (dBi)
2400	53.75	2.71
2410	53.94	2.06
2420	55.17	2.61
2430	55.25	2.5
2440	54.08	2.8
2450	55.12	2.89
2460	52.12	2.66
2470	51.95	2.71
2480	53.56	2.46
2490	55.38	2.53
2500	53.05	2.66



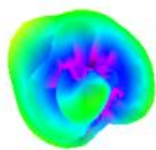
2.4G&5G Gain and Efficiency

Freq (MHz)	Effi (%)	Gain (dBi)
2400	53.75	2.71
2410	53.94	2.06
2420	55.17	2.61
2430	55.25	2.5
2440	54.08	2.8
2450	55.12	2.89
2460	52.12	2.66
2470	51.95	2.71
2480	53.56	2.46
2490	55.38	2.53
2500	53.05	2.66

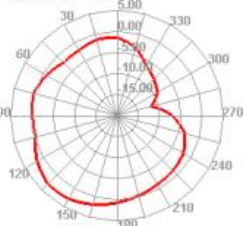
Freq (MHz)	Effi (%)	Gain (dBi)
5700	53.18	2.21
5710	54.82	2.12
5720	54.76	2.74
5730	55.34	2.14
5740	52.03	2.82
5750	51.11	2.17
5760	52.85	2.74
5770	54.69	2.90
5780	54.46	2.44
5790	53.53	2.37
5800	54.77	2.42



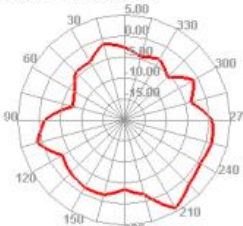
2400.000MHz



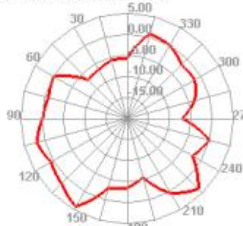
2400.000MHz H



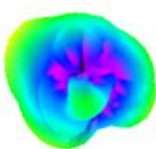
2400.000MHz E1



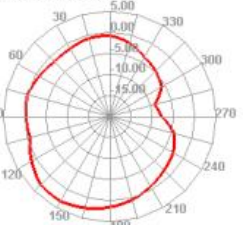
2400.000MHz E2



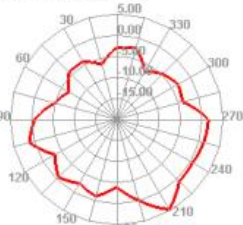
2450.000MHz



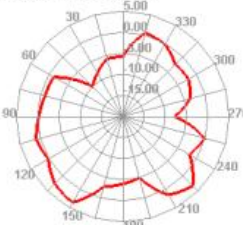
2450.000MHz H



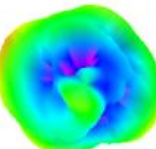
2450.000MHz E1



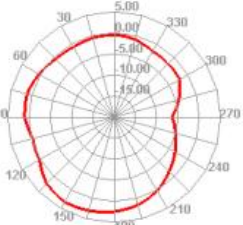
2450.000MHz E2



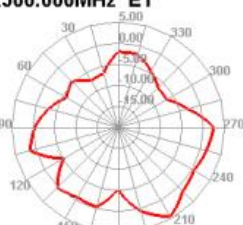
2500.000MHz



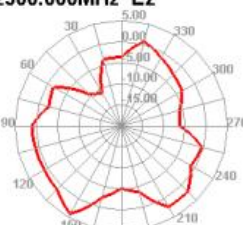
2500.000MHz H



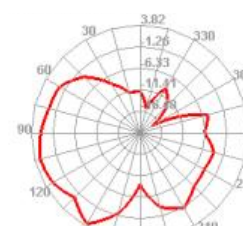
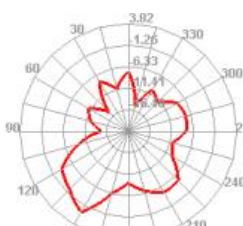
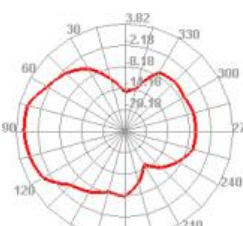
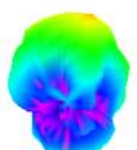
2500.000MHz E1



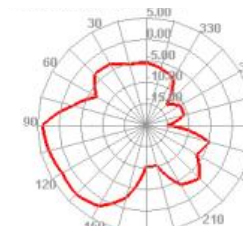
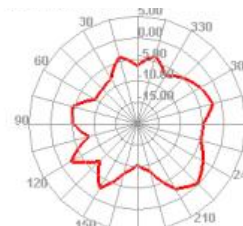
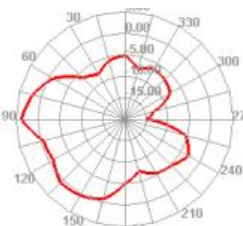
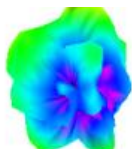
2500.000MHz E2



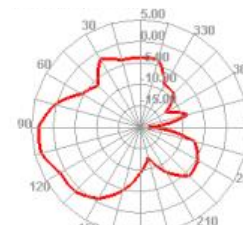
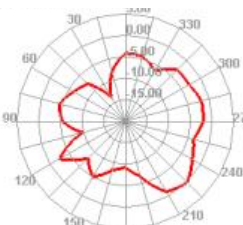
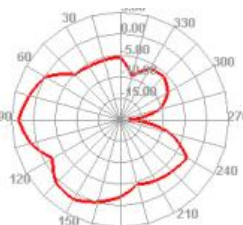
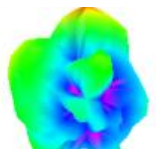
5100MHz



5700MHz



5800MHz





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	$\leq 1.3 @ 0 \sim 6\text{GHz}$		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	$^{\circ}\text{C}$	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$