1. Product Profile

FPC antenna is a soft 2.4 GHz FPC antenna. This antenna applies dipole antenna principle. Designed with high gain, high efficiency, omni-directional, good port matching and other characteristics. It is used in wireless terminals. The product can have large coverage area and good connection speed.

2. Applications

Intelligent TV, Intelligent Vehicle DVD Navigation, MID, Network Camera, Set Top Box GPS, E-book, Hard Disk Player, Network Radio, PSP and so on need to realize wireless networking equipment.

3. Main characteristics

- ◆ It meets the performance requirements of conventional PCB antenna and achieves near omni-directional coverage.
- ◆ The average gain is fuller and the coverage blind area is reduced.
- ◆ Good port matching improves the efficiency of transmitting and receiving.

4.Conventional specifications

Ⅰ、Electrical parameters

Frequency Scope	2.4GHz~2.5GHz
Characteristic Impedance	50Ω
Voltage Standing Wave Ratio	≤2:1
Gain	3.4dBi
Power Capacity	2W
Polarized Form	Horizontal
Radiation direction	Omnidirectional

Ⅱ、Mechanical parameters

Line Length	110MM +IPEX
Coaxial Cable	1.13 Grey Line

Ⅲ、Working/Storage Temperature

Working Temperature	-30℃～65℃
Storage Temperature	-30℃～75℃

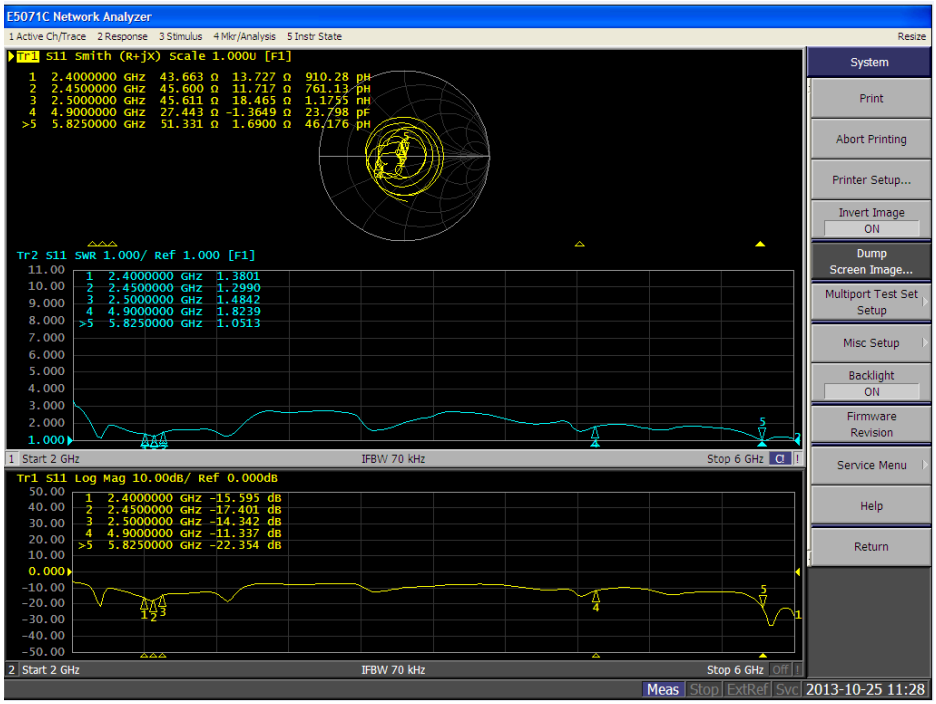
Ⅳ、Environmental and Reliability Experiments

Project	Experimental Condition	Performance Requirement	Test/Rest Equipment
Cryogenic storage	Temperature-30℃+2 ℃ /Humidity 0%/RH/Time 48H	No effect on appearance and function test after test	Constant Temperature and Humidity Testing Machine

High temperature and humidity storage	Temperature-70 ℃ , Humidity 90-95%/RH 48H	No effect on appearance and function test after test	Constant Temperature and Humidity Testing Machine
Temperature shock	Product environment: -35 ℃ 2H, 80 ℃ 2H, 12 cycles 48H	No effect on appearance and function test after test	Cold and Heat Shock Testing Machine

5、Test Data

I、Echo Loss and Standing Wave Ratio (2.4~2.5 GHz)

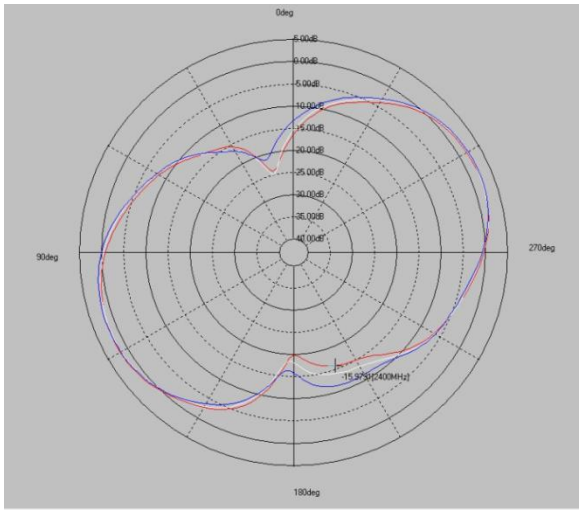


II、Benefits and Gains

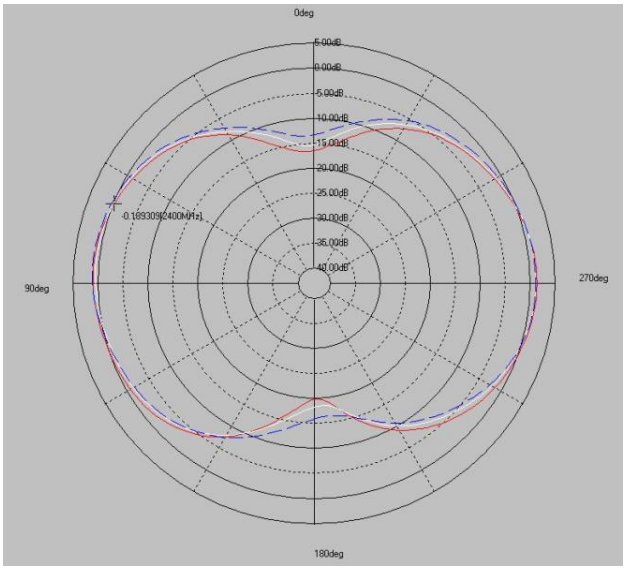
Frequency	X-Z plane		Y-Z plane		X-Y plane		E-total	Efficiency
	Phi=0		Phi=90		theta=90			
(MHz)	Peak Gain	Average Gain	Peak Gain	Average Gain	Peak Gain	Average Gain	(dBi)	(%)
2400	3.11	-2.54	3.40	-3.05	2.62	2.45	2.65	70%
2450	3.20	-2.21	3.13	-3.19	2.70	2.36	2.85	71%
2500	3.32	-2.91	3.30	-3.18	2.63	2.56	2.90	72%

III、Direction Map

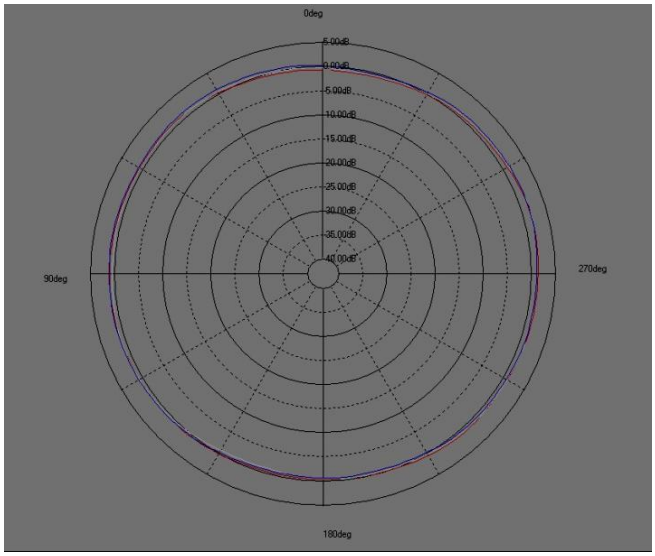
x-z plane



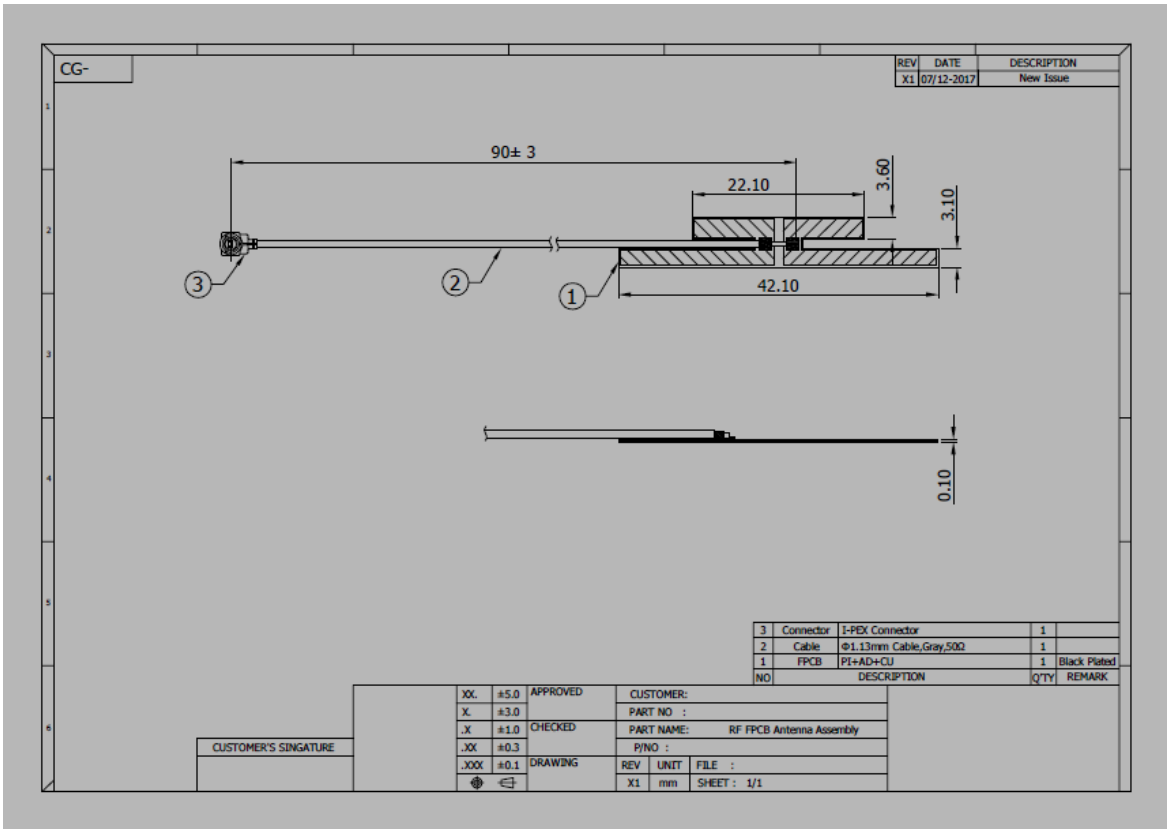
y-z plane

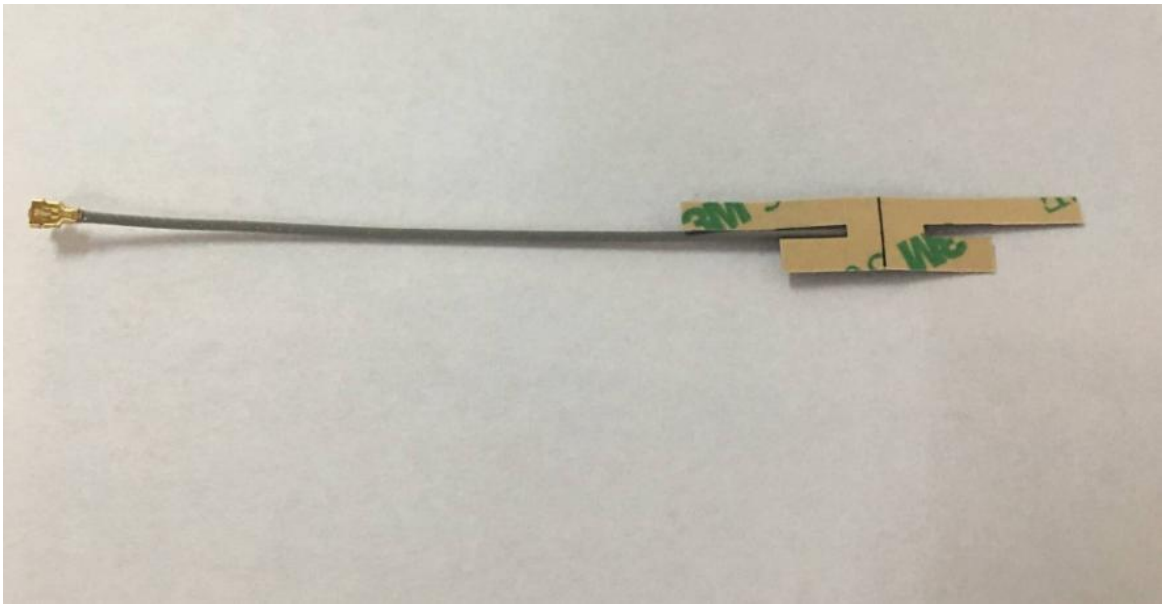


x-y plane



6. Product Structure Diagram





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