

Bluetooth and WIFI antenna specification

1, Index

Item	Content	Page	Remark
1	Index	1	
2	Spec Drawing	2-3	
3	Specification	4	
4	Antenna On Test Board	5	
5	Return Loss	5	
6	Radiation Pattern	6	
7	Gain and Efficiency	6	
8	Bluetooth 2D Radiation Pattern	7	
9	WIFI 2D Radiation Pattern	8	

Document Type: 2.4GHZ & 5.8GHZ PCB antenna
Document Version: V1.0
Release Date: 2019-12-11

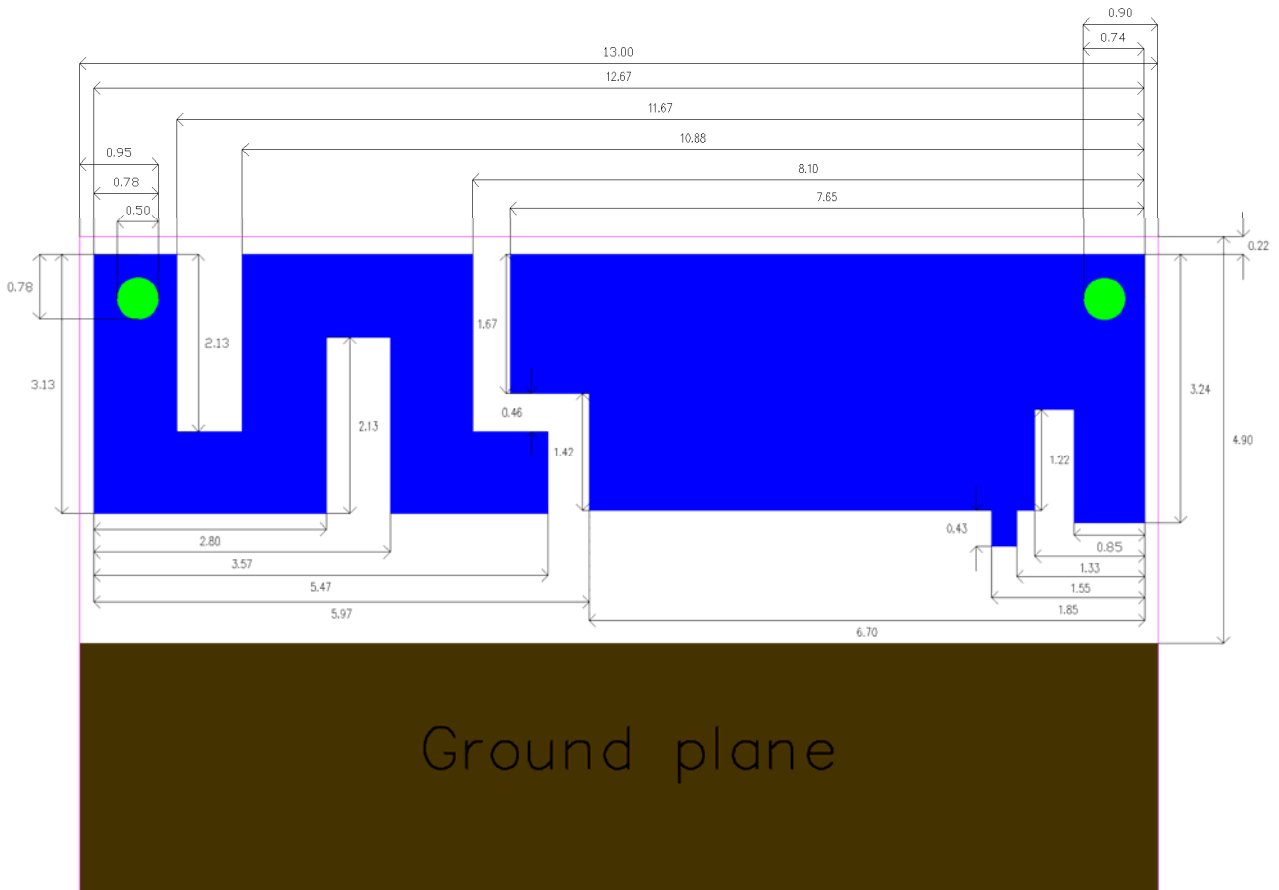
ShenZhen Feasycom Technology Co.,Ltd
Room 2004A,20th Floor,Huichao Technology Building,JinhaiRoad,Xixiang,Baoan District,Shenzhen,China 518102
Telephone: 86-755-27924639
www.feasycom.com

2, Spec Drawing

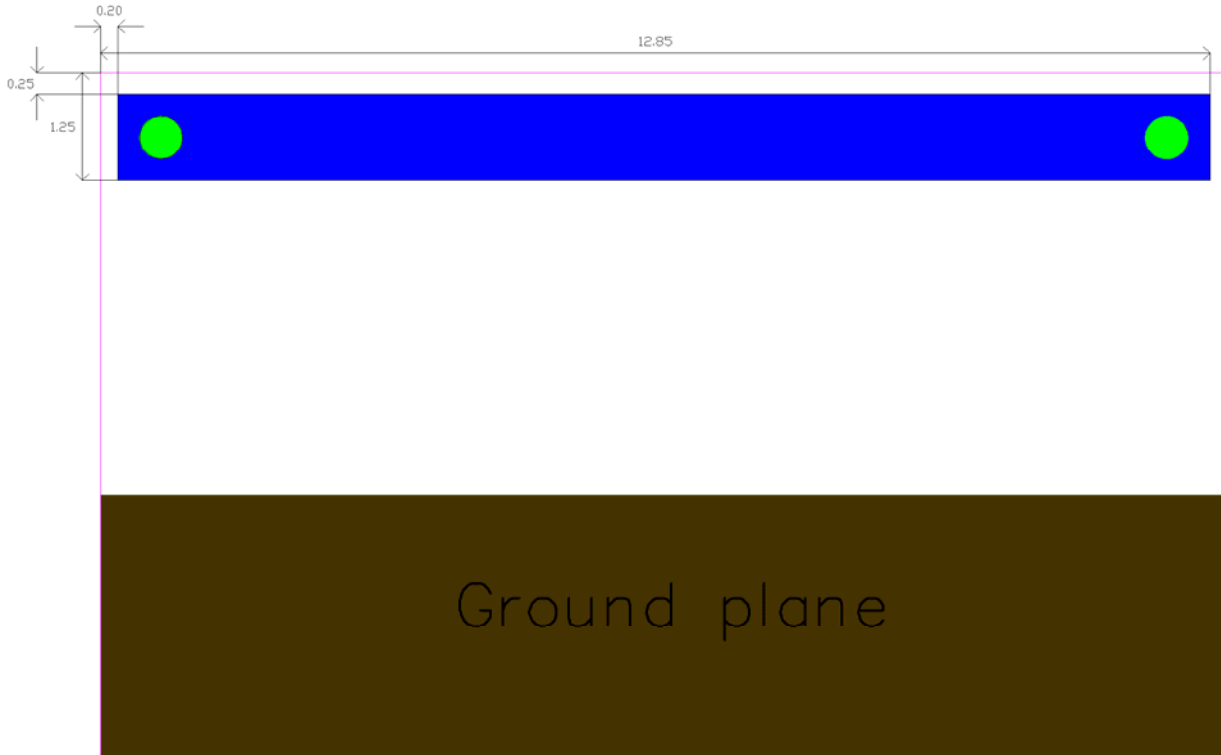
Unit: mm

RF4 sheet thickness: 0.8mm

Top view



Bottom view



3, Specification

Product Number: 2.4GHZ PCB antenna

Sample Photo:



Antenna model:FSC-BW236 V1.2

A. Electrical Characteristics

Bluetooth Frequency	2400 ~ 2500 MHz
WIFI Frequency (2.4GHZ)	2400 ~ 2500 MHz
WIFI Frequency (5GHZ)	5180 ~ 5850 MHz
S.W.R.	<=3.0
Gain	-1.56 dBi
Efficiency	~ 30%
Polarization	Linear
Impedance	50 Ohm

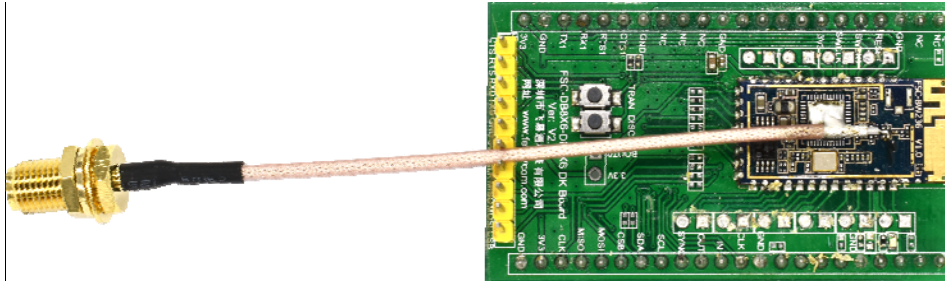
B. Material & Mechanical Characteristics

Material of Radiator	copper
----------------------	--------

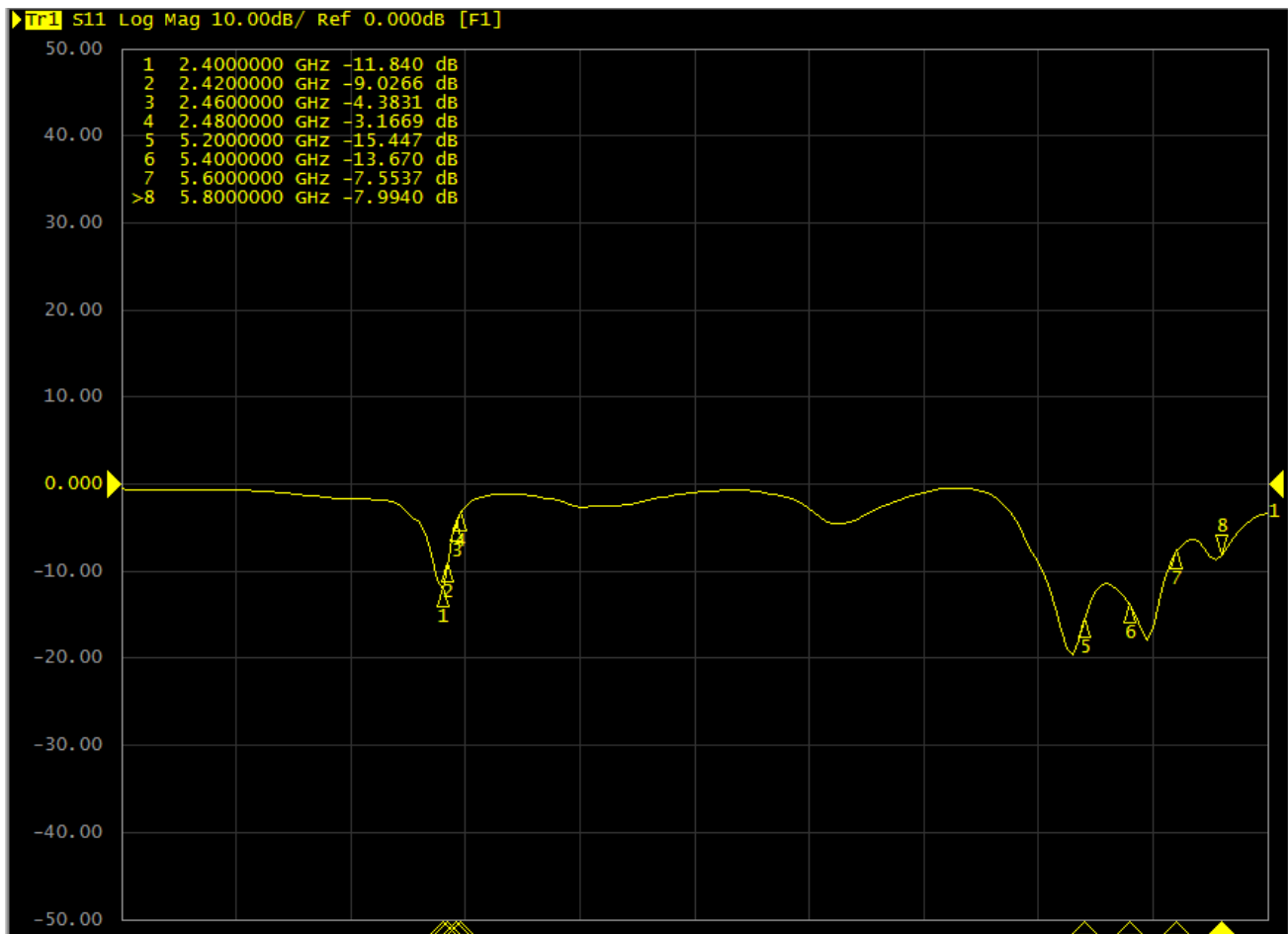
C. Environmental

Operation Temperature	- 40℃ ~ + 85℃
Storage Temperature	- 40℃ ~ + 105℃

4, Antenna On Test Board

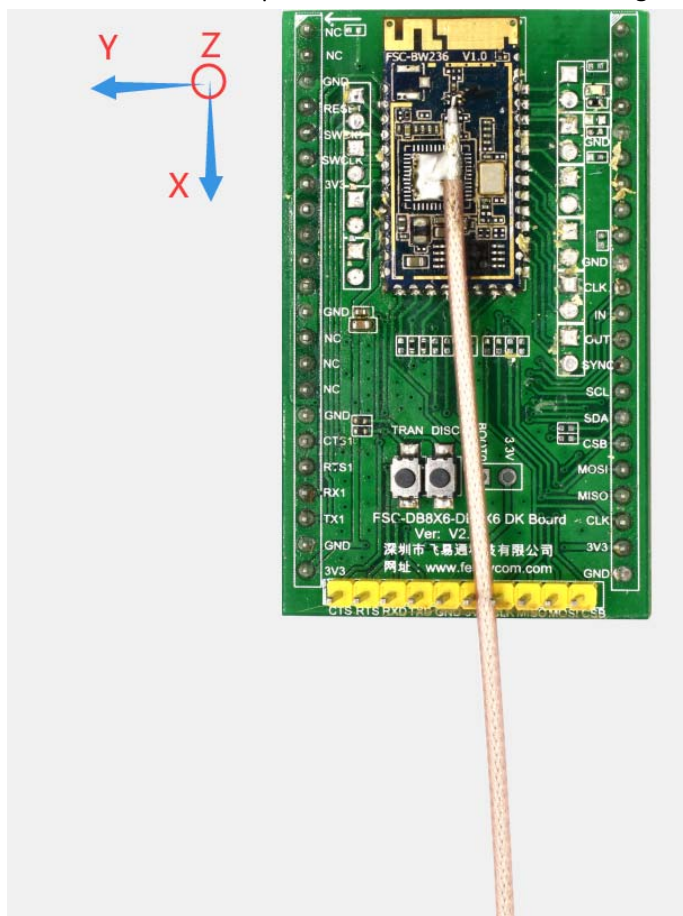


5, Return Loss



6, Radiation Pattern

Radiation Pattern and Gain were dependent on measurement board design. The specification of coil antenna was measured based on the PCB size and installation position as shown in the below figure Test Board.

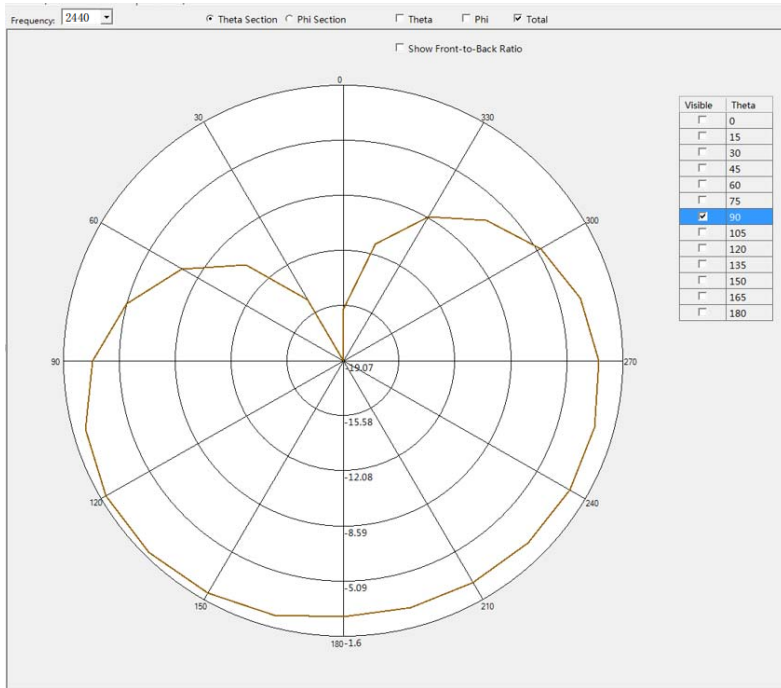


6.1, Gain and Efficiency

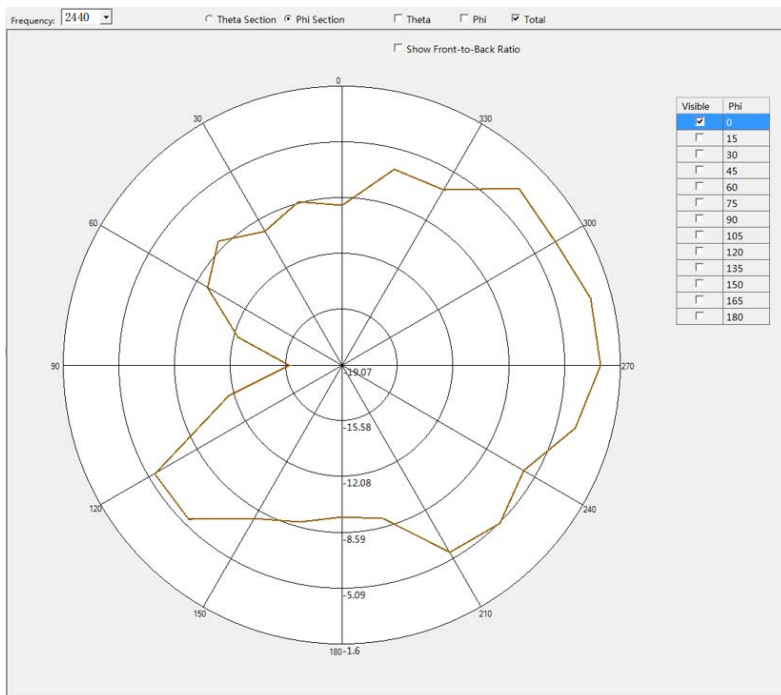
Frequency	Gain(dBi)	Efficiency	Frequency	Gain(dBi)	Efficiency
2400	-2.49	26.54	5100	-2.68	17.21
2410	-1.9	29.34	5200	-1.56	20.24
2420	-1.83	29.58	5300	-2.42	20.42
2430	-1.73	30.29	5400	-1.81	22.4
2440	-1.56	30.65	5500	-2.83	17.93
2450	-1.59	30.32	5600	-5.65	12.01
2460	-1.67	30.05	5700	-2.23	19.69
2470	-1.79	29.19	5800	-2.35	22.95
2480	-1.93	26.84	5900	-2.78	22.07

6.2, Bluetooth 2D Radiation Pattern

Theta=90°

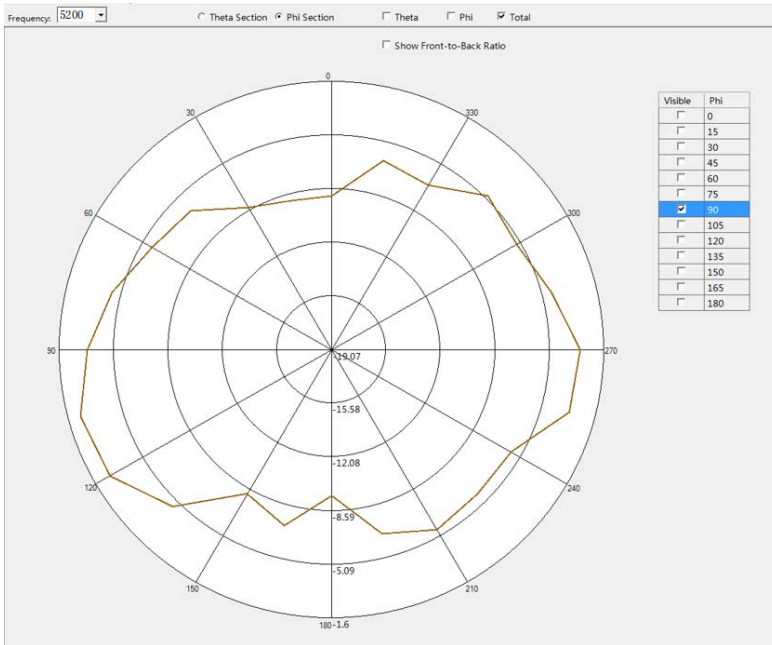


Phi=0°

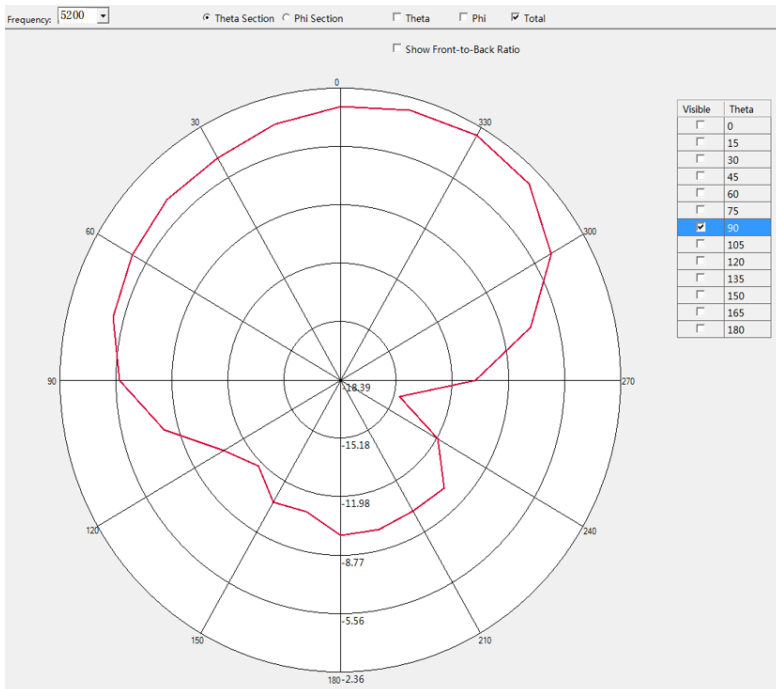


6.3, WIFI 2D Radiation Pattern

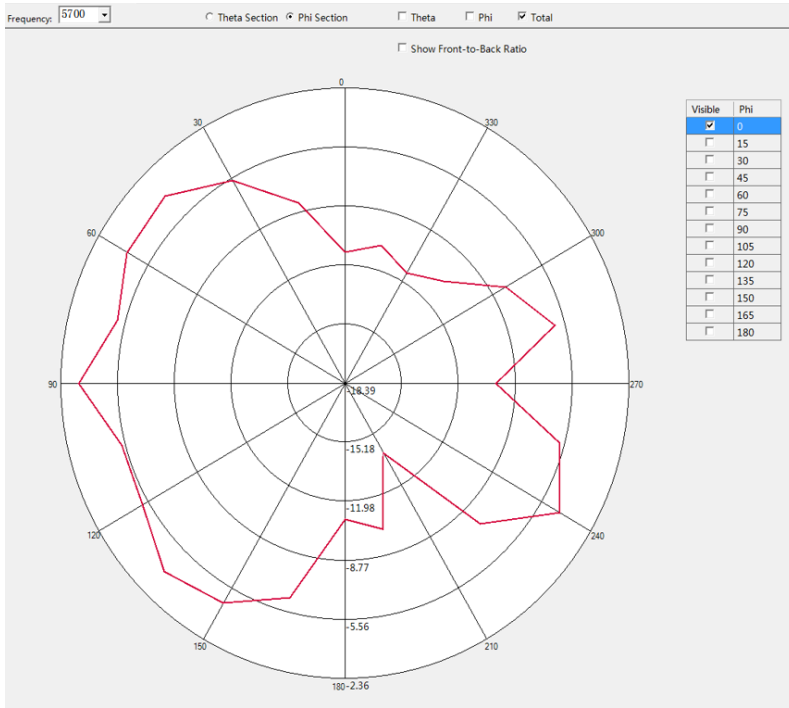
Phi=90°



Theta=90°



Phi=0°



Phi=90°

