

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

Telephone: 86-755-27924639

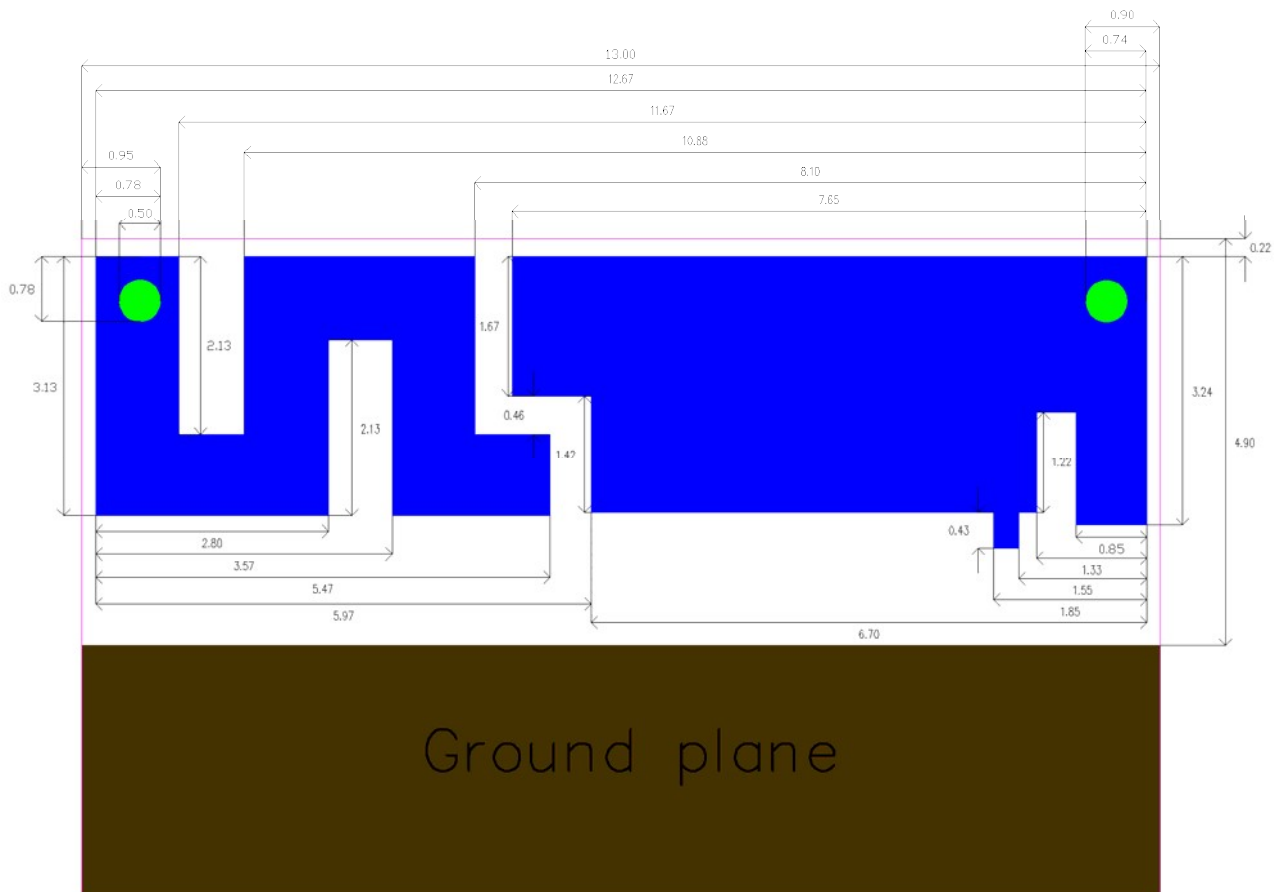
www.feasycom.com

2, Spec Drawing

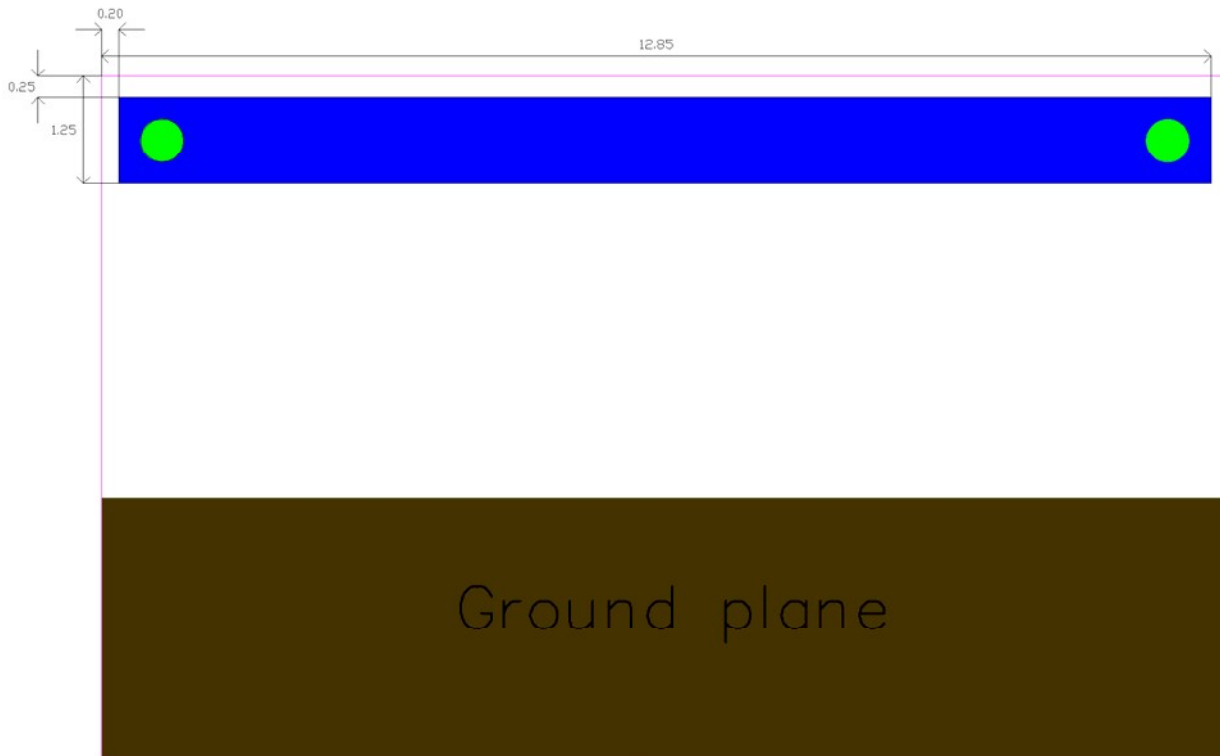
Unit: mm

RF4 sheet thickness: 0.8mm

Top view



Bottom view



3, Specification

Product Number: 2.4GHZ FPC antenna

Sample Photo:



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	-1.8dBi
Efficiency	~ 30%
Polarization	Linear
Impedance	50 Ohm

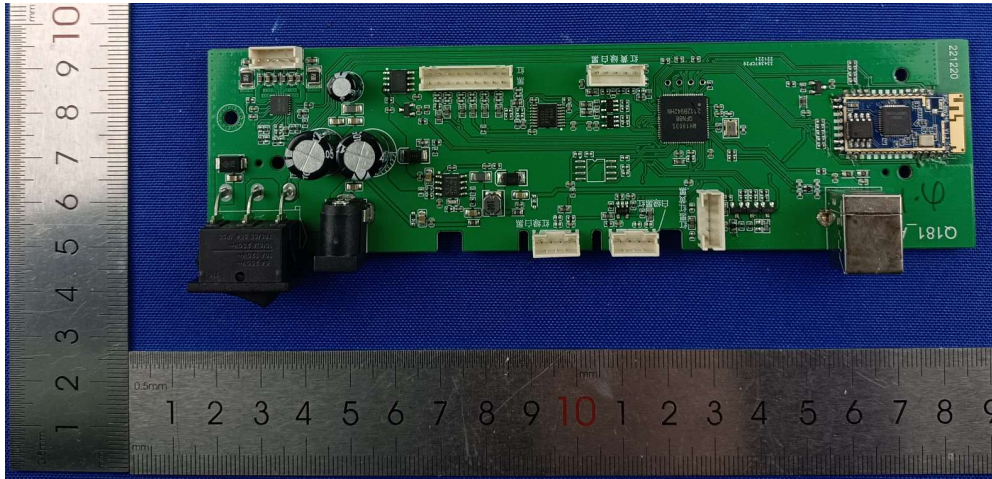
B. Material & Mechanical Characteristics

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

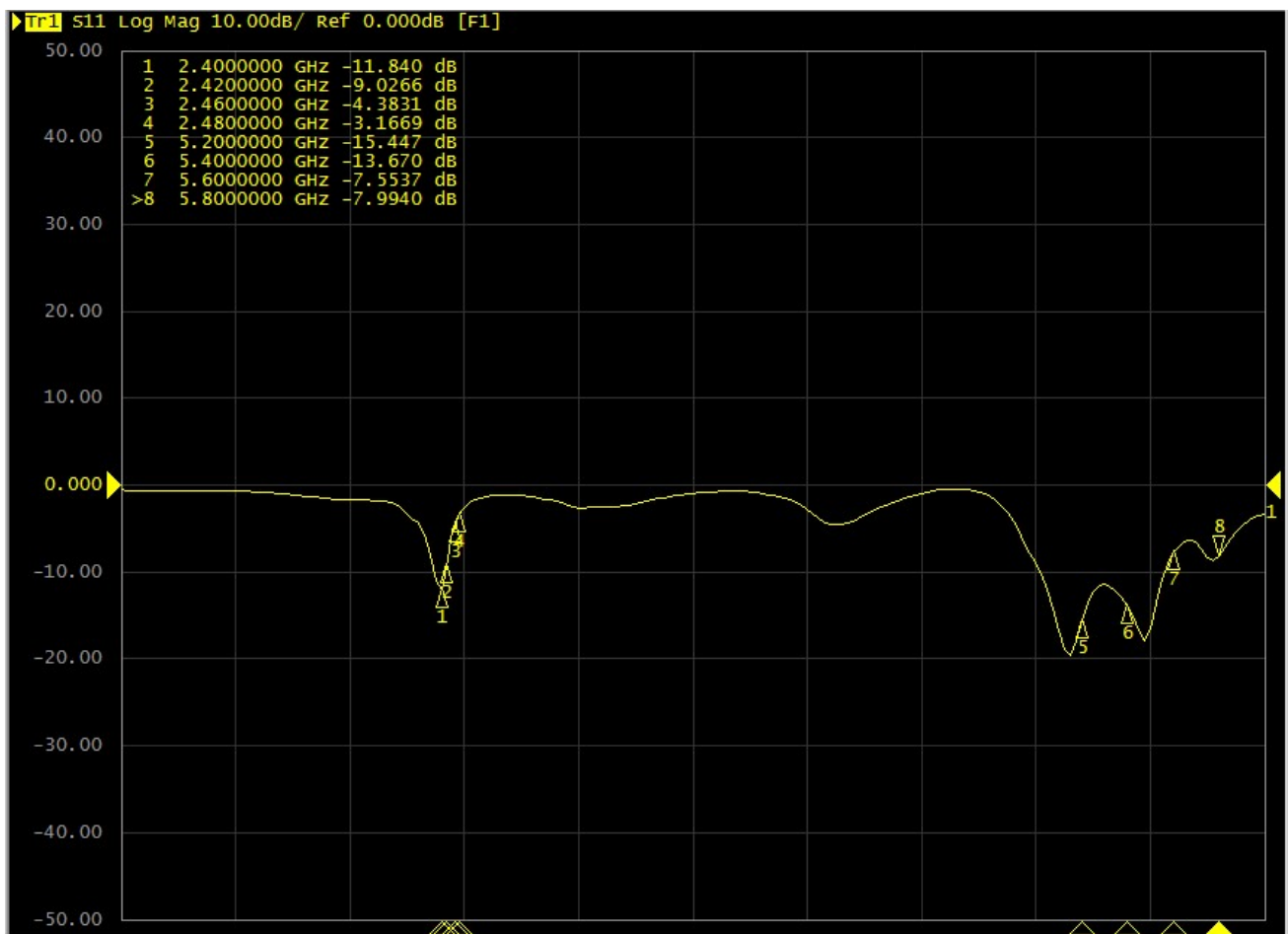
C. Environmental

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

4, Antenna On Test Board

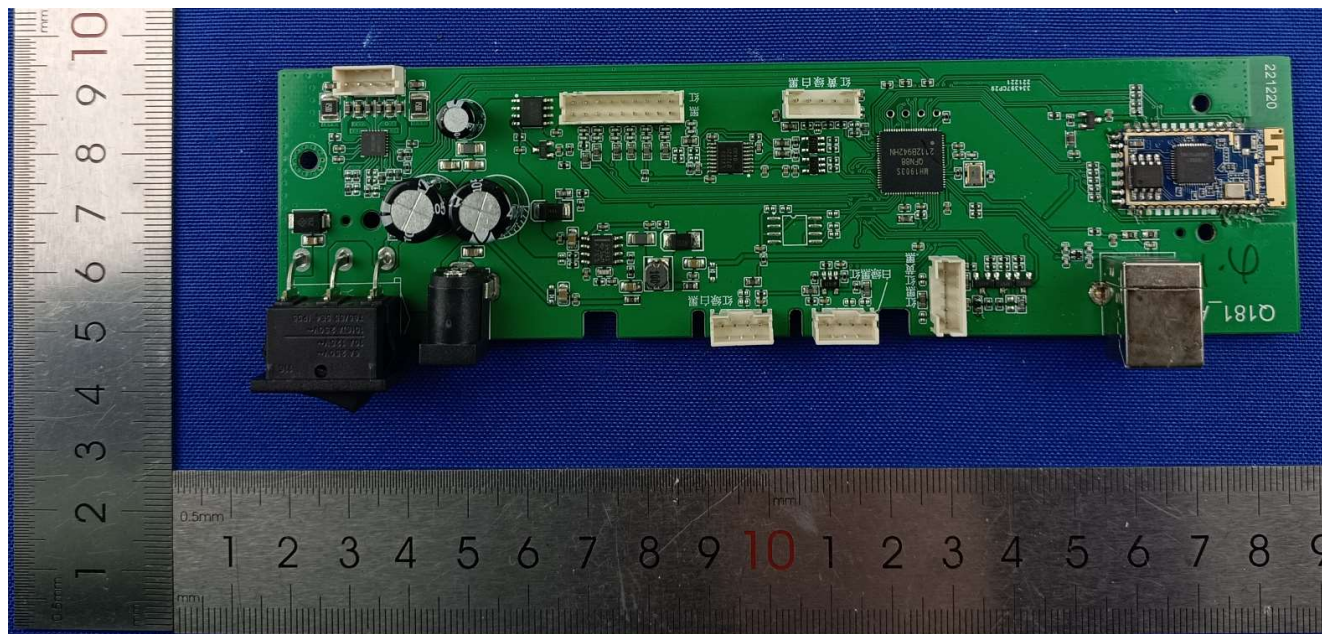


5, Return Loss



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.

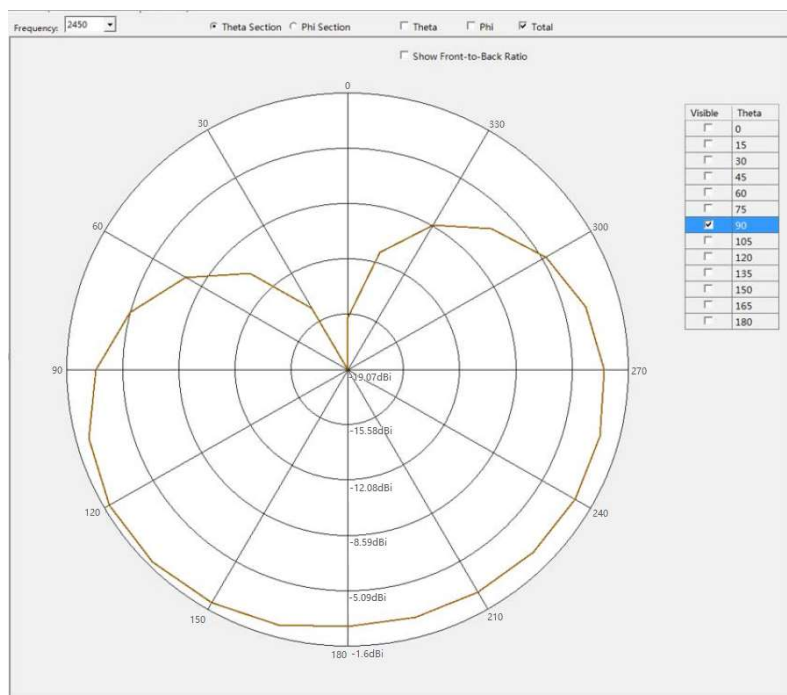


6.1, Gain and Efficiency

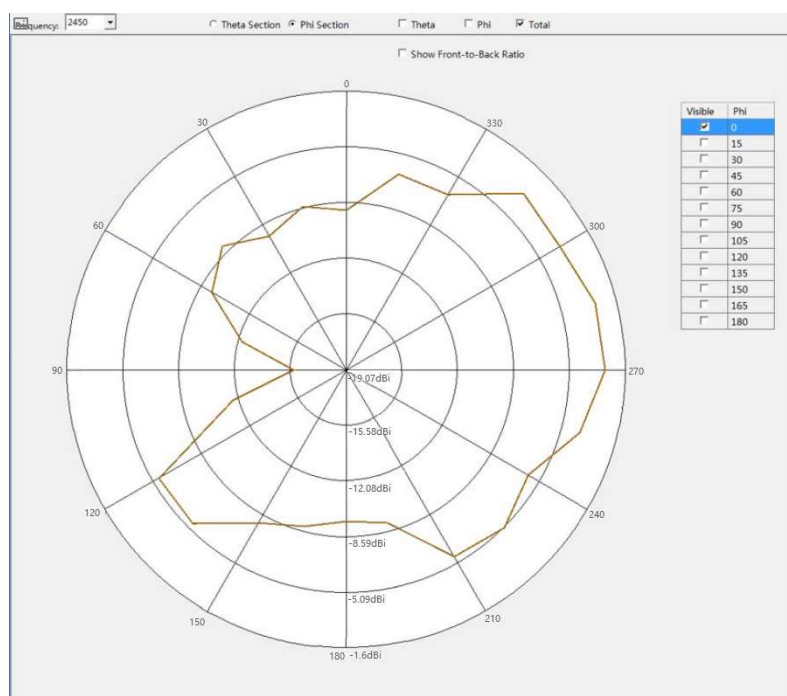
Frequency	Gain(dBi)	Efficiency	Frequency	Gain(dBi)	Efficiency
2400	-2.49	26.54	5100	-2.68	17.21
2410	-2.24	29.34	5200	-2.01	20.24
2420	-2.1	29.58	5300	-2.42	20.42
2430	-1.9	30.29	5400	-1.81	22.4
2440	-1.8	30.65	5500	-2.83	17.93
2450	-1.95	30.32	5600	-5.65	12.01
2460	-2.01	30.05	5700	-2.23	19.69
2470	-2.13	29.19	5800	-2.35	22.95
2480	-2.27	26.84	5900	-2.78	22.07

6.2, Bluetooth 2D Radiation Pattern

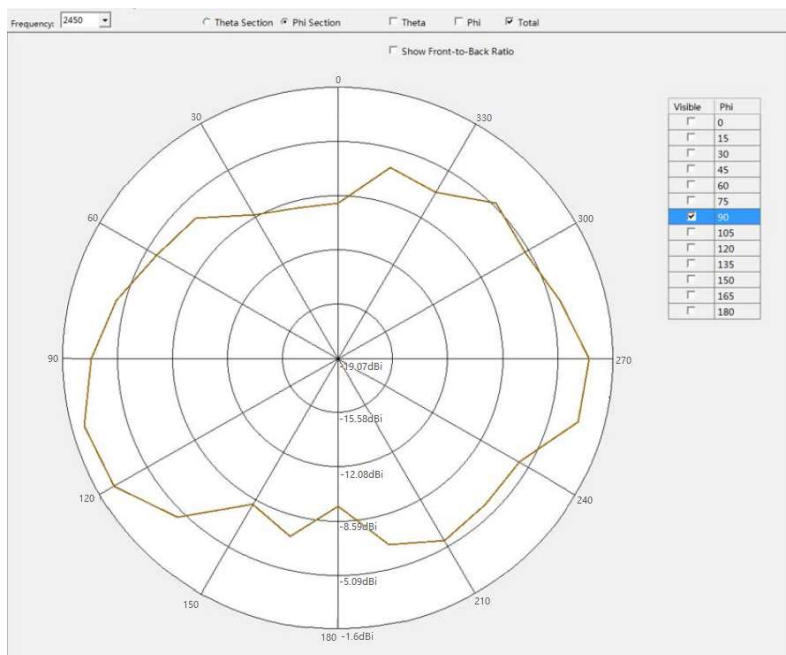
Theta=90°



Phi=0°

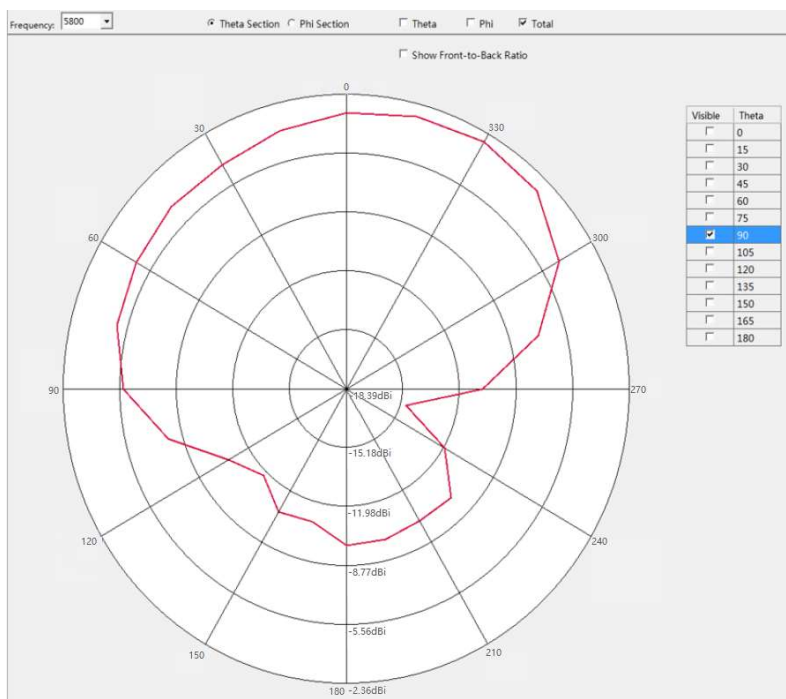


Phi=90°

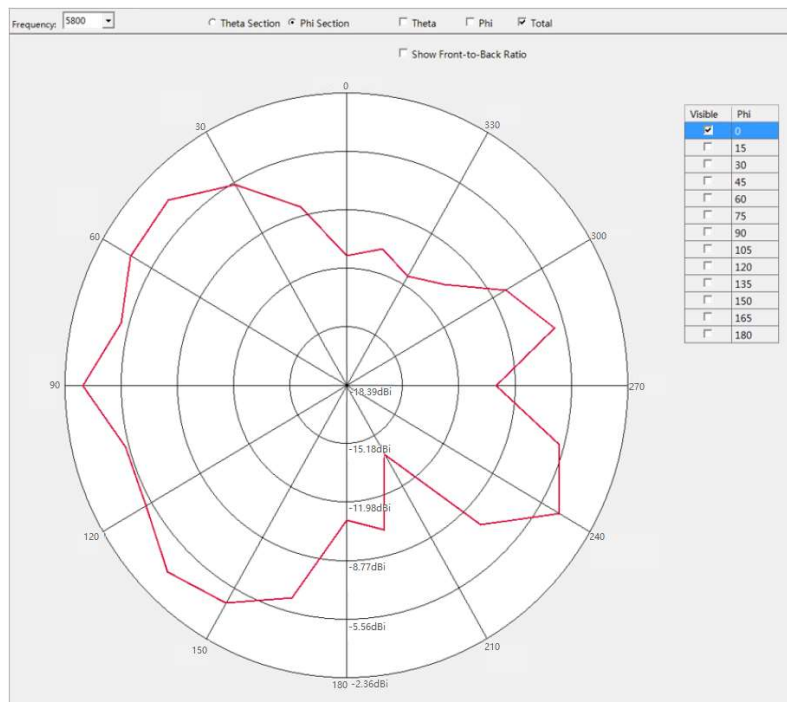


6.3, WIFI 2D Radiation Pattern

Theta=90°



Phi=0°



Phi=90°

