Inverted F Antenna Specification

MANUFACTURE : SHANGHAI MOUNTAIN VIEW SILICON CO,. LTD

PRODUCT NAME : MV_BP10xx PCB Antenna

DATE : 2019-10-30

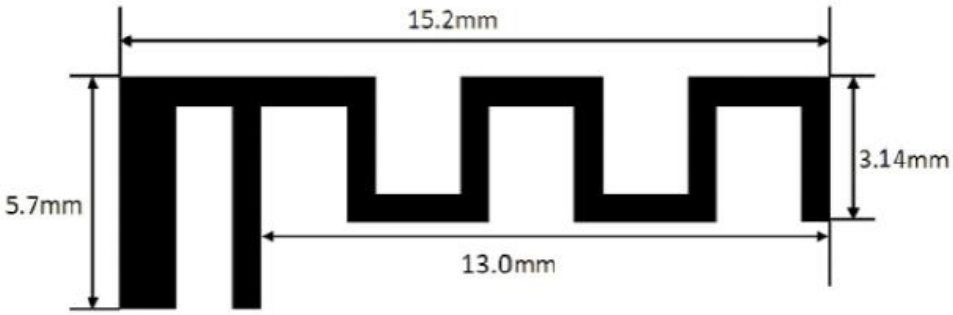
1. Antenna describe

Antenna plate：Inverted F Antenna

Frequency range：2.4GHz-2.48GHz

ITEM Name	Inverted F Antenna Specification
Model Name	2.4GHz Antenna
Polarization	Horizontal and Vertical
Azimuth Beam Pattem	Omni-directional
Impedance	50 Ohm
Antenna Lengh	14.4mm
Gain(Max)	2.81(±1 dBi）

2. Antenna Photo& Lengh（mm）



3. Gain

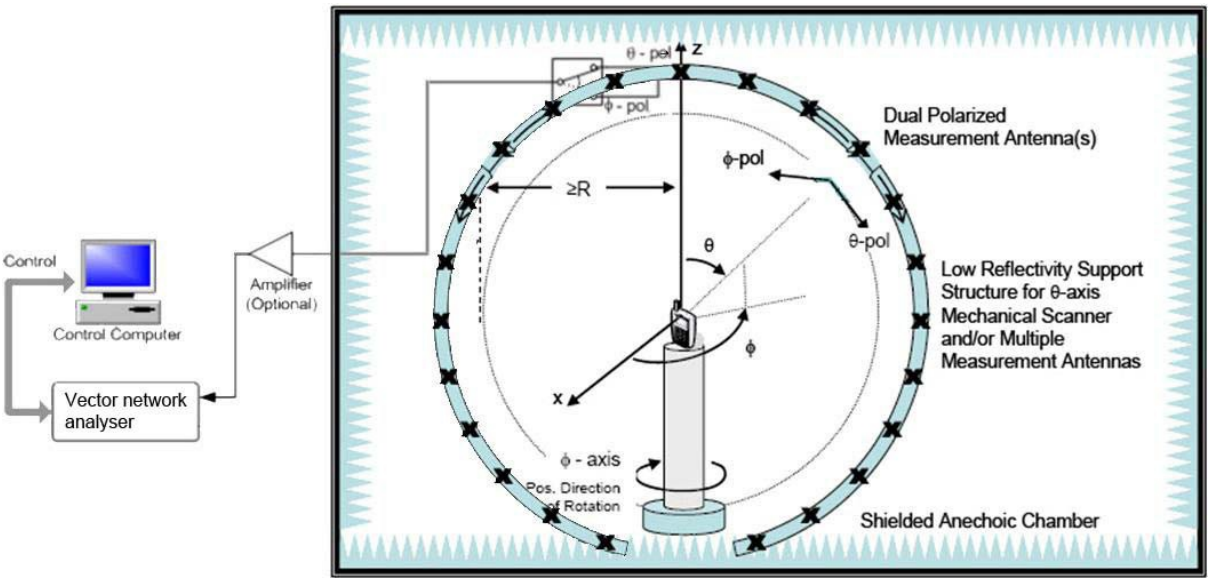
Frequency	Gain（dBi）
2400MHz	2.81
2410MHz	2.74
2420MHz	2.70
2430MHz	2.73
2440MHz	1.01
2450MHz	1.26
2460MHz	1.50
2470MHz	1.49
2480MHz	1.42
2490MHz	0.36
2500MHz	0.33

4. Return Loss/VSWR/Input Impedance

Frequency	Return Loss (dB)	VSWR	Input Impedance(Ω）
2400MHz	-7.23	2.53	25.37
2400MHz	-6.47	2.80	17.99
2450MHz	-6.22	2.90	17.18
2480MHz	-5.18	3.44	15.55
2500MHz	-4.56	3.89	15.48

Annex A Photographs

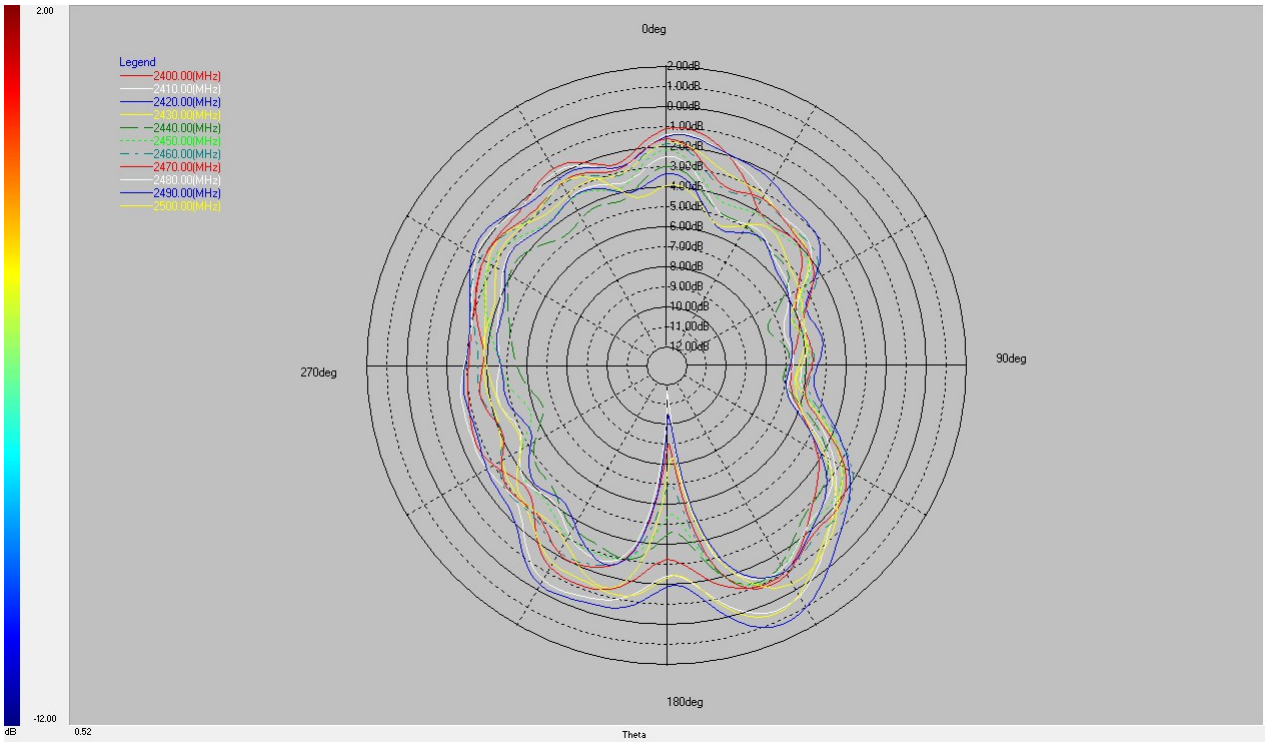
1. Test Setup



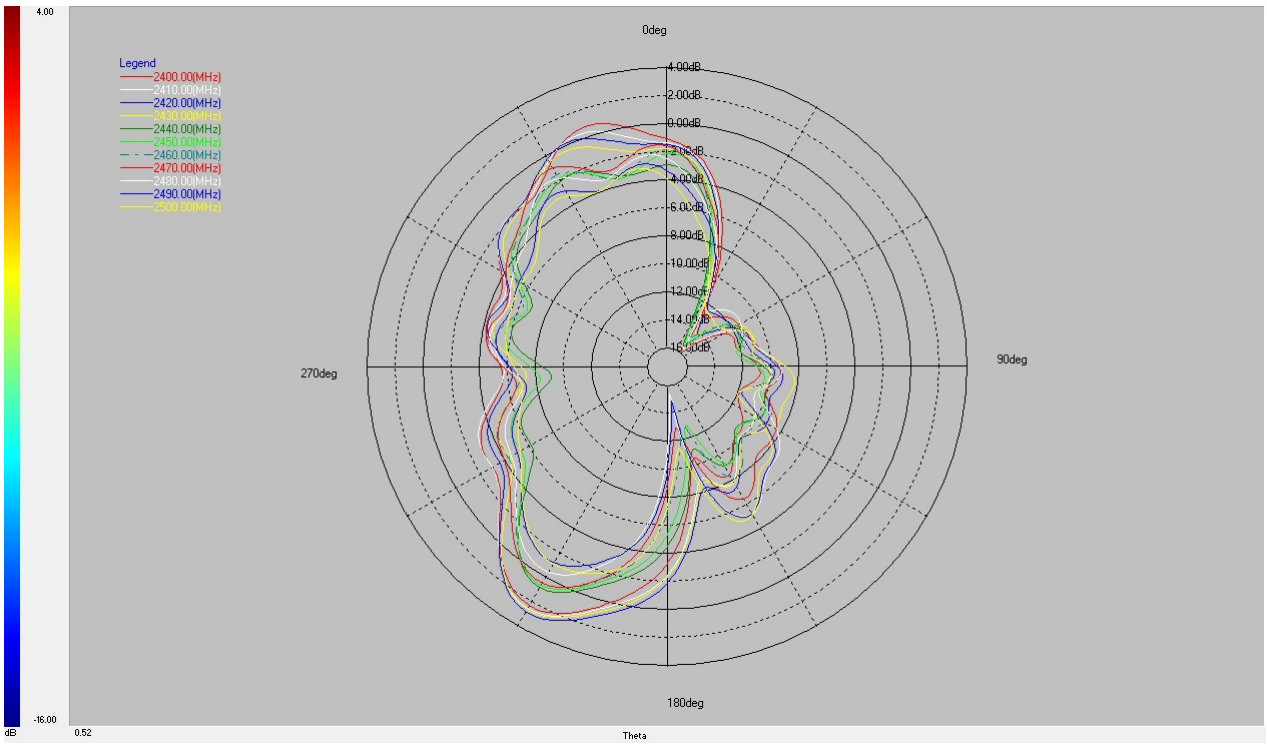
Annex B Figures

1. 2D Radiation Pattern

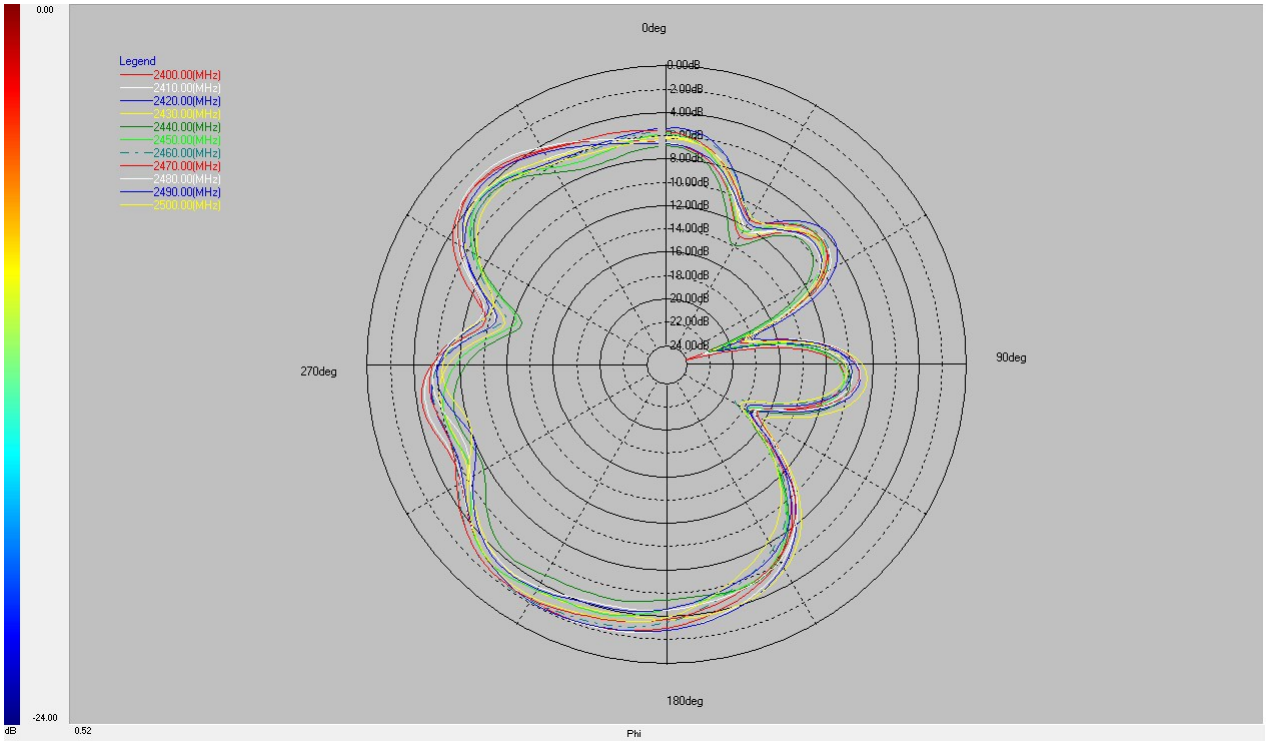
Phi=0°



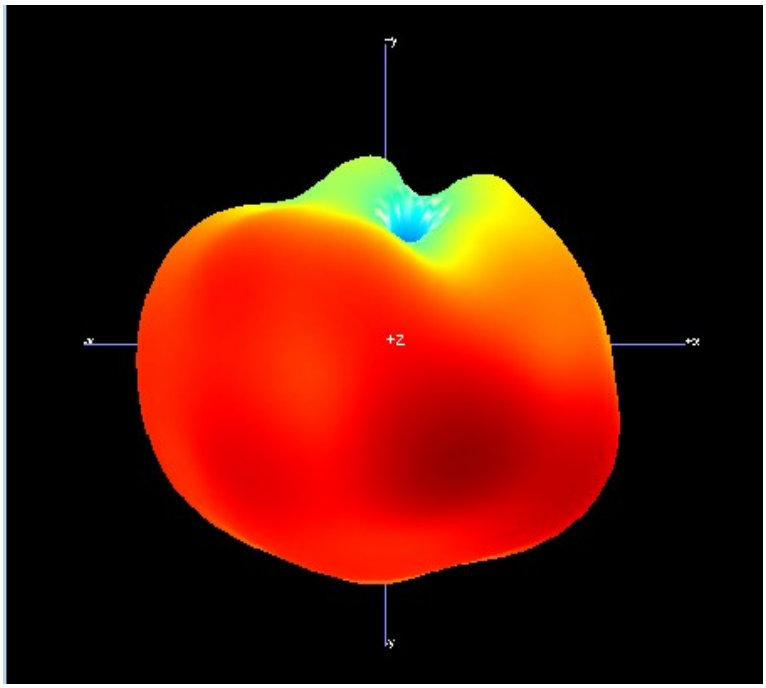
Phi=90°



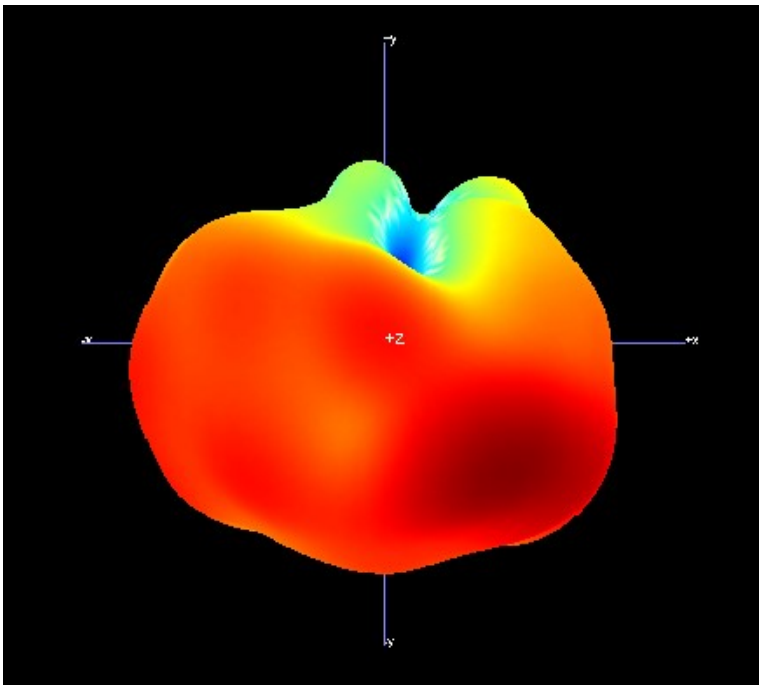
Theta=90°



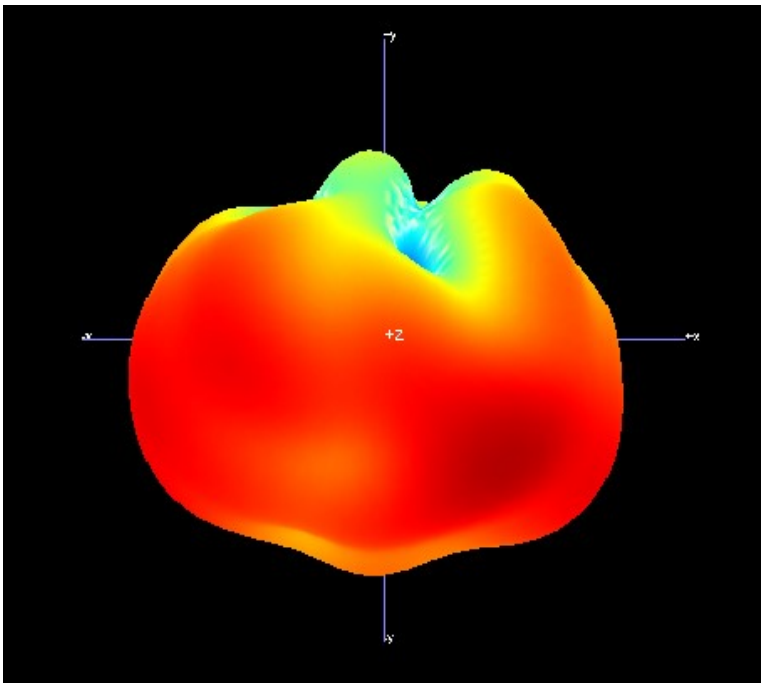
2. 3D Radiation Pattern



2400MHz

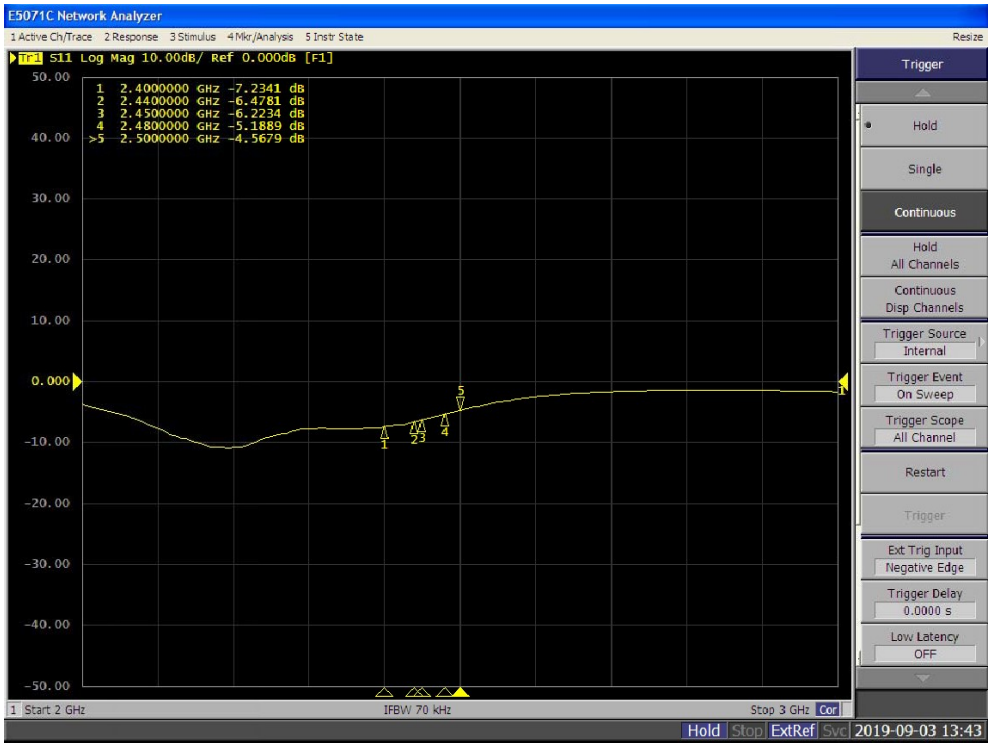


2450MHz

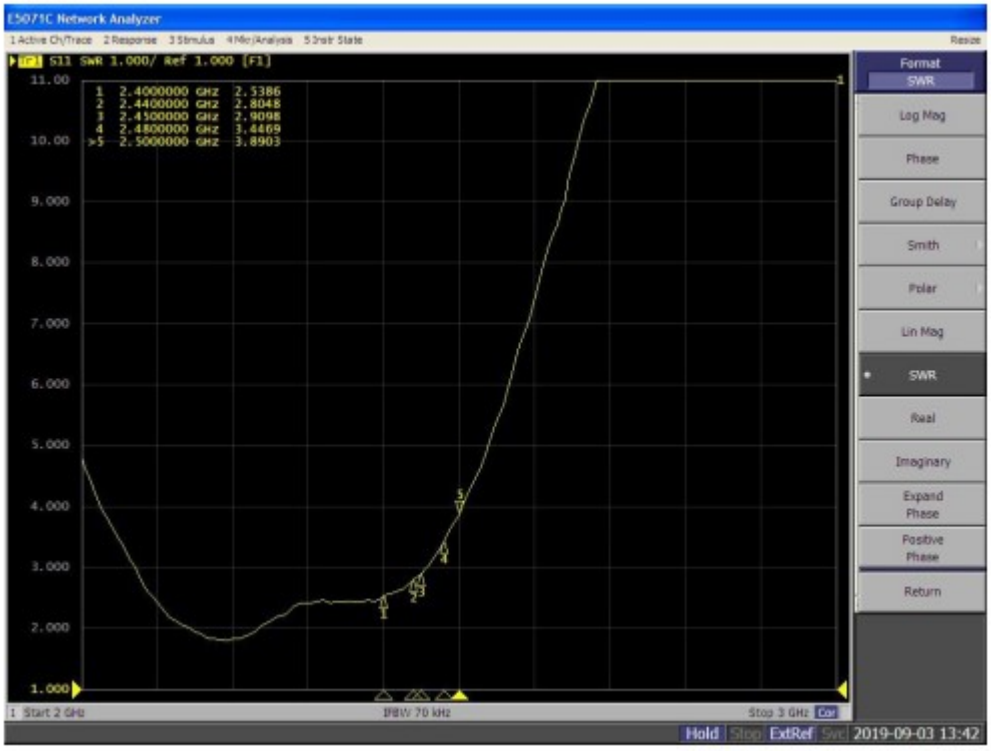


2500MH

3. Return Loss



4. VSWR


E5071C Network Analyzer
S11 SWR 1.000/ Ref 1.000 [F1]
1 2.4000000 GHz 2.5386
2 2.4400000 GHz 2.8048
3 2.4500000 GHz 2.9098
4 2.4800000 GHz 3.4469
>5 2.5000000 GHz 3.8903
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Start 2 GHz
IFBW 70 kHz
Stop 3 GHz
Format
SWR
Log Mag
Phase
Group Delay
Smith
Polar
Lin Mag
SWR
Real
Imaginary
Expand Phase
Positive Phase
Return
Hold
ExtRef
2019-09-03 13:42

END