

HF-LPT270 Test Report

Innovation never end.....

Manufacturer: Shanghai Hanfeng Electronic Technology Co., Ltd

Address: Building 17, 101, No. 1500 Zuchongzhi Road, China (Shanghai) Pilot Free Trade Zone

Outline Summary

● Purpose

Antenna design and test for Mojito. Result as following.

● Agenda

- Test Environment and Equipment
- Antenna Positions

Test Result : VSWR

Test Result : Efficiency

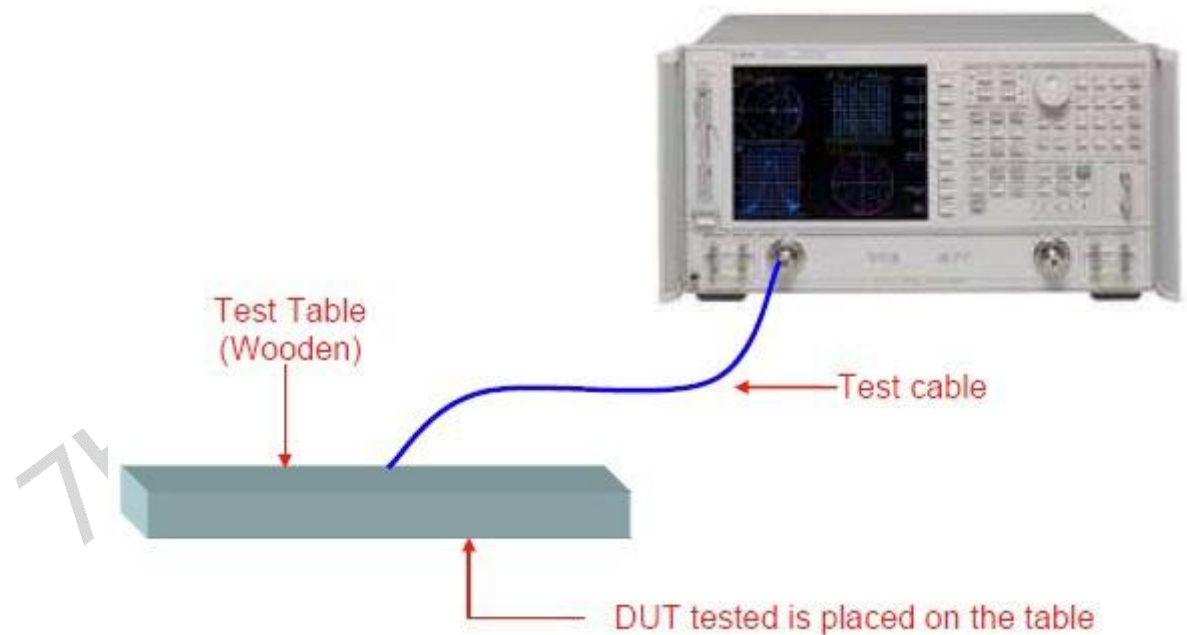
Test Result : 2D Radiation Pattern

● Result & Suggestions

Test Environment and Equipments

S-Parameter test

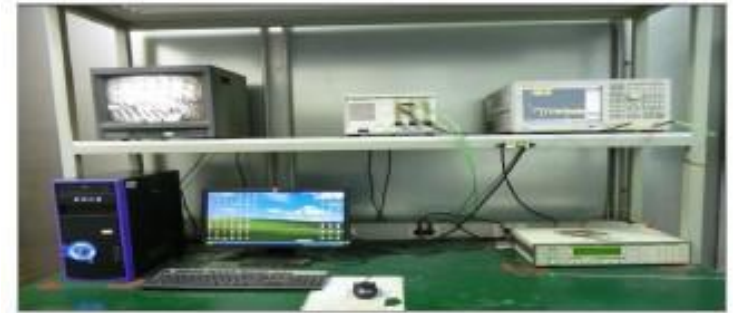
- Testing range from 9KHz to 8.5GHz or 300KHz~6.5GHz
- Network Analyzer(Agililent-E5071C or R&S ZVL)



Test Environment and Equipments

The Gain, Efficiency, Directivity and 2/3D Pattern

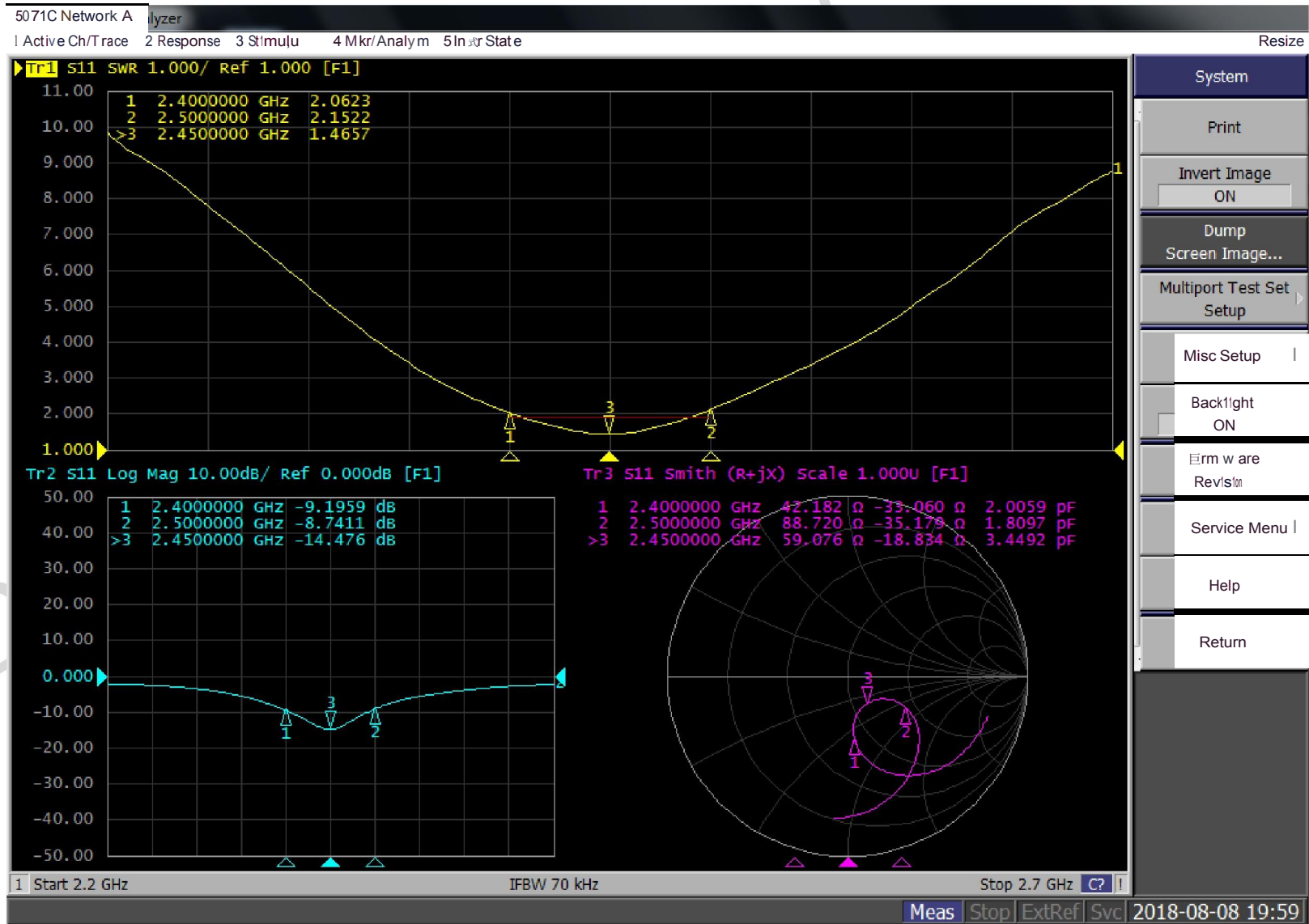
- 3D Anechoic Chamber
- Testing range from 700MHz to 6GHz
- Chamber Room Size: $L*W*H=9*4.7*4.7$ M



VSWR

- Testing range from 9KHz to 8.5GHz or 300KHz~6.5GHz
- Network Analyzer(Agilent-E5071C or R&S ZVL)

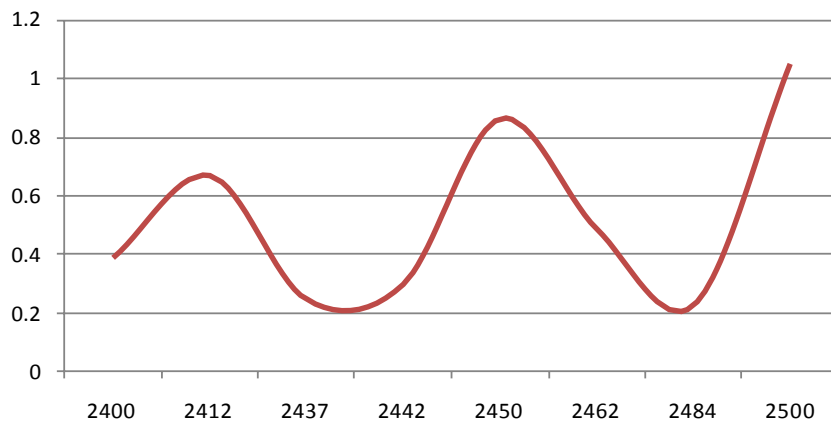




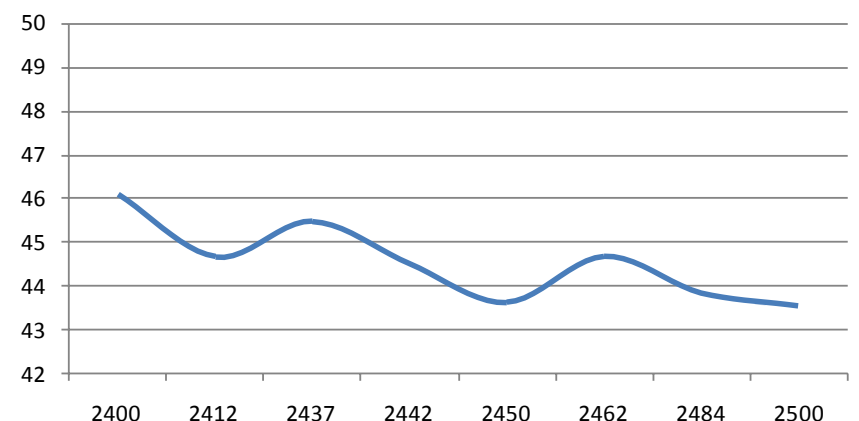
3D Total Date

Total/Fr equency	Ant. Port Input	Tot. Rad. Pwr . (dBm)	Peak EIRP (dBm)	Directivity (dBi)	Efficienc y (dB)	Efficiency (%)	Gain(dBi)
2400	0	-3.361413	0.389235	3.750648	-3.361413	46.116748	0.389235
2412	0	-3.50011	0.670378	4.170489	-3.50011	44.667224	0.670378
2437	0	-3.422525	0.246844	3.669369	-3.422525	45.47236	0.246844
2442	0	-3.515487	0.299056	3.814544	-3.515487	44.509351	0.299056
2450	0	-3.602275	0.864485	4.46676	-3.602275	43.628724	0.864485
2462	0	-3.497353	0.488575	3.985927	-3.497353	44.695595	0.488575
2484	0	-3.579493	0.226577	3.80607	-3.579493	43.858188	0.226577
2500	0	-3.611696	1.051473	4.663169	-3.611696	43.534182	1.051473

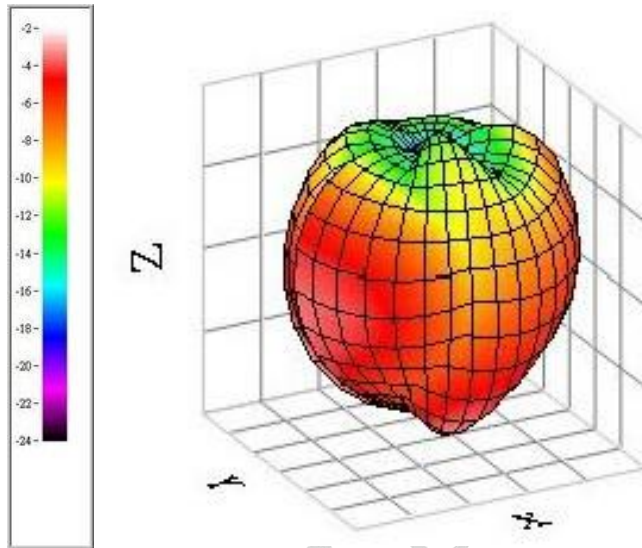
Gain(dBi)



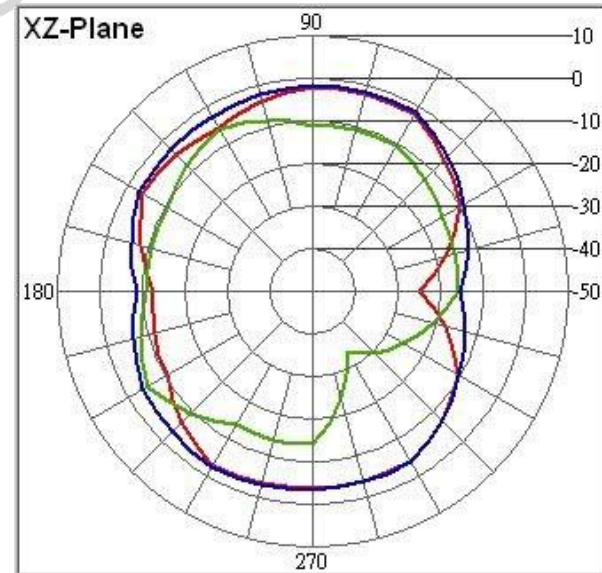
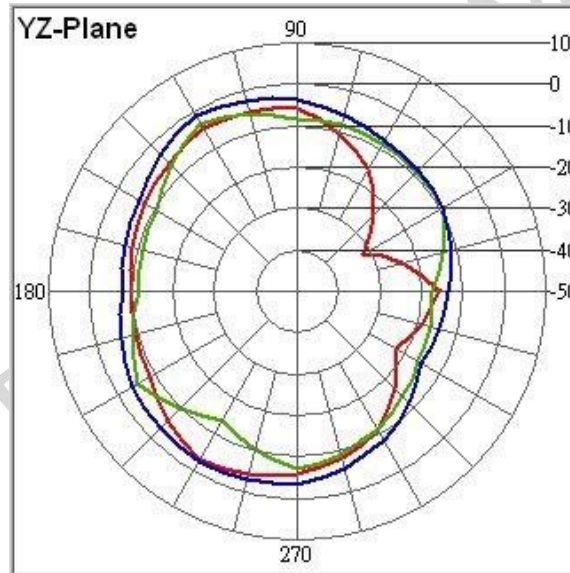
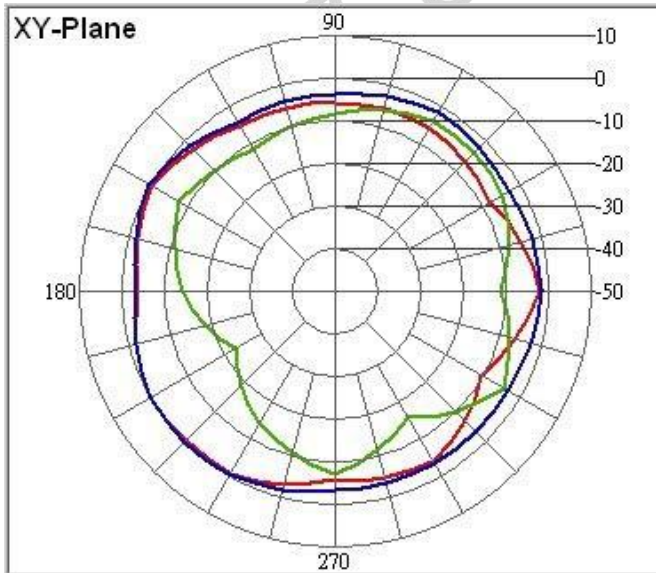
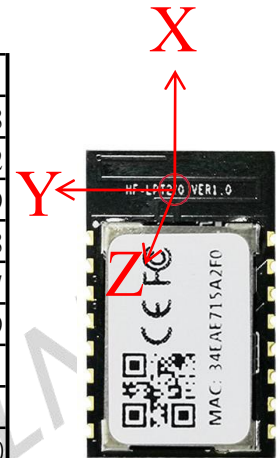
Efficiency(%)



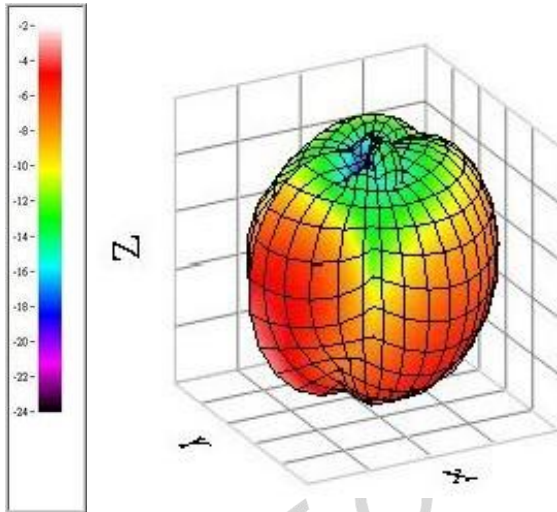
Frequency = 2400 MHz



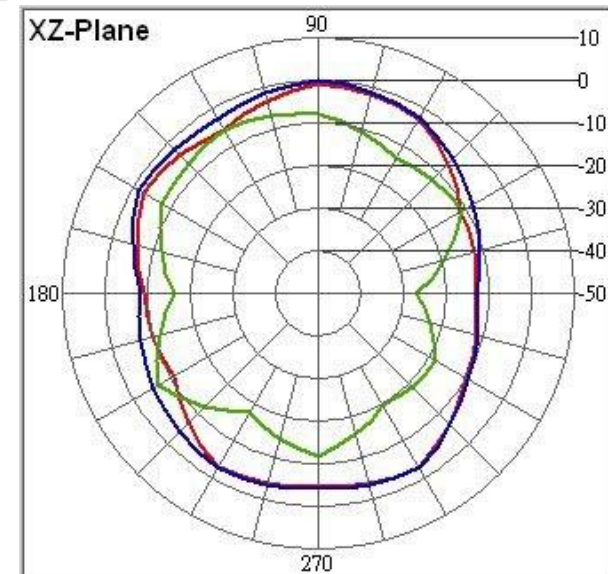
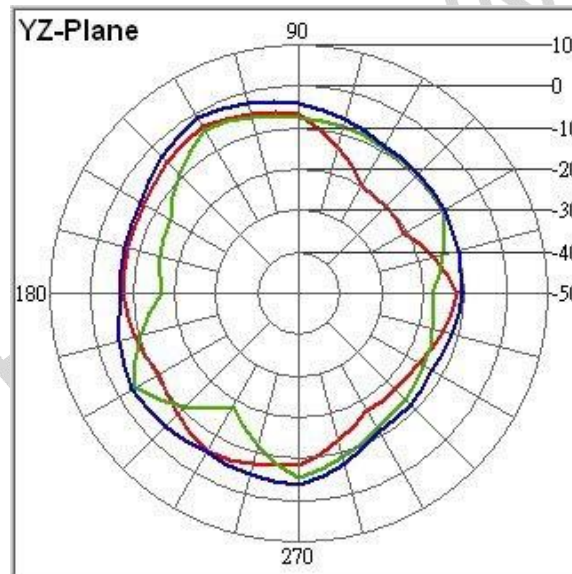
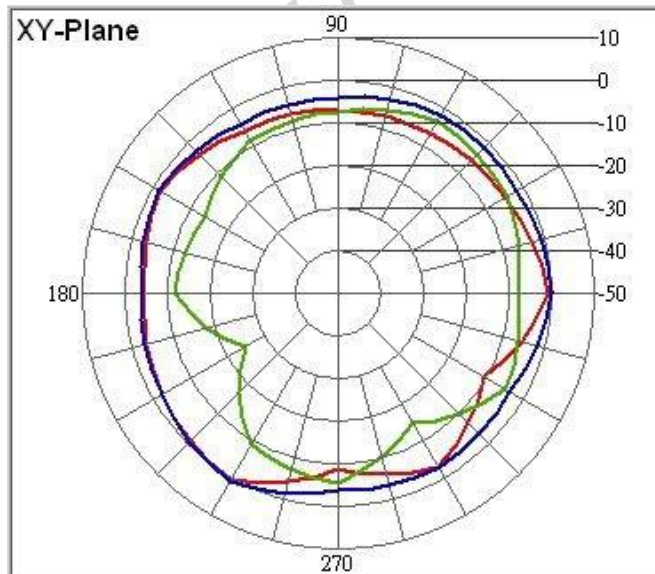
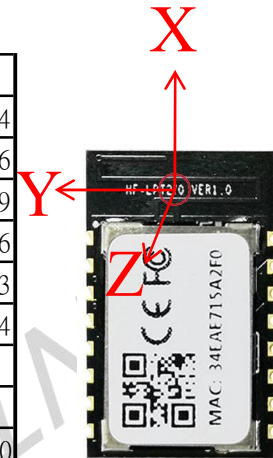
dBm	XY- Pl ane	XZ- Pl ane	YZ- Pl ane
H- Pol . (Peak.)	0.139977	- 2.090171	- 3.032668
V- Pol . (Peak.)	- 3.795009	- 5.1371	- 3.269062
H+V. (Peak.)	0.389235	- 1.523236	- 0.898339
H-Pol . (Avg.)	- 3.264823	- 5.228177	- 7.948598
V-Pol . (Avg.)	- 8.029977	- 10.711423	- 8.683427
H+V. (Avg.)	- 2.01392	- 4.146155	- 5.290189
Angle	XY- Pl ane	XZ- Pl ane	YZ- Pl ane
H- Pol . (Peak.)	210	90	240
V- Pol . (Peak.)	60	210	120
H+V. (Peak.)	150	60	120



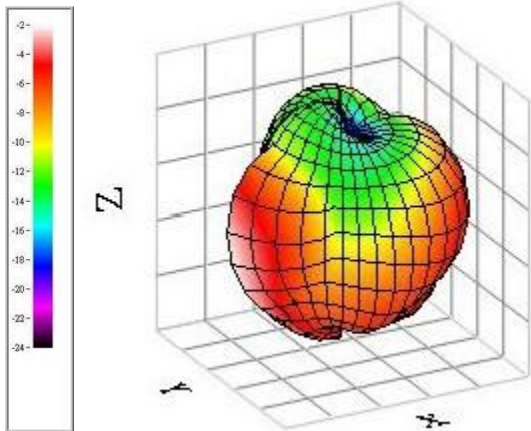
Frequency = 2450 MHz



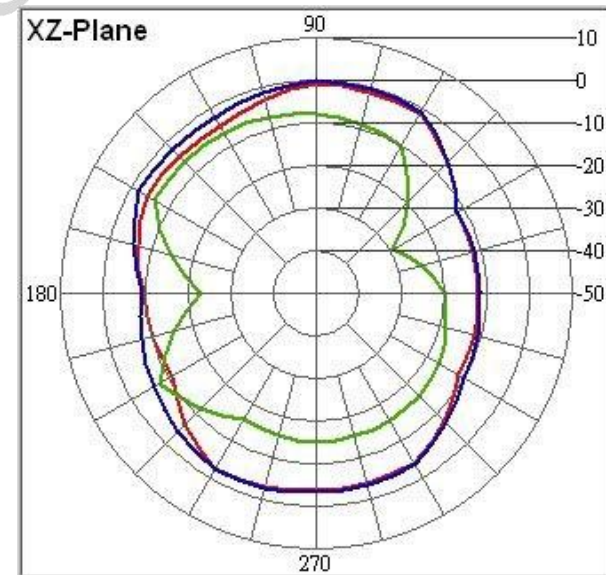
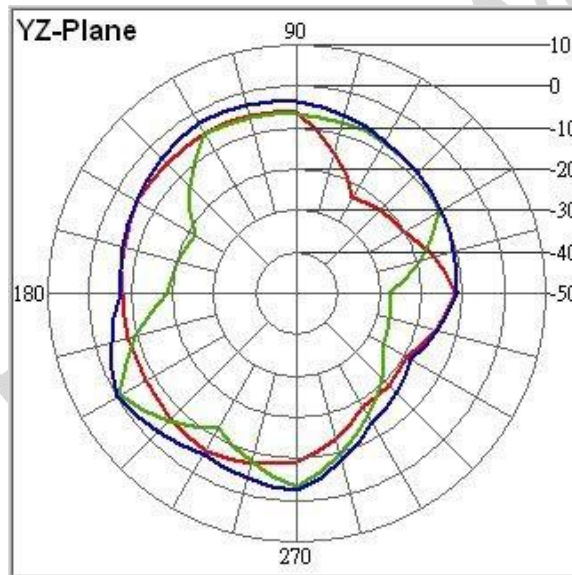
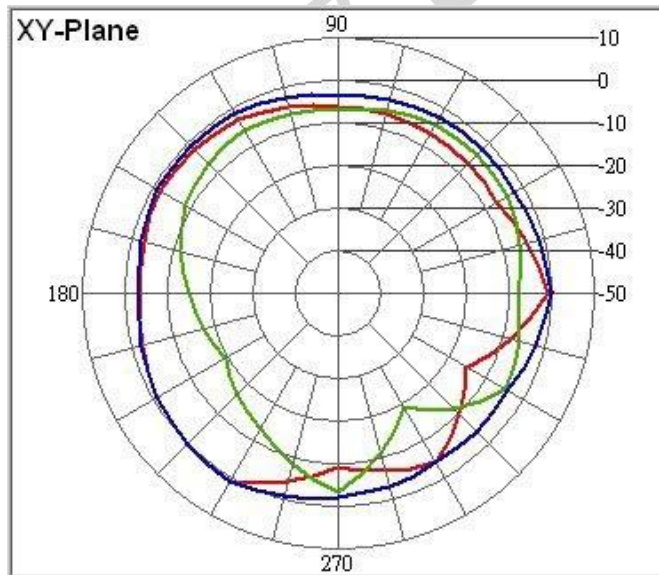
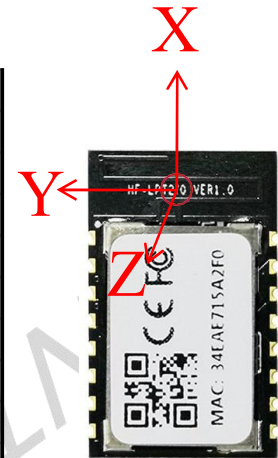
dBm	XY- Pl ane	XZ- Pl ane	YZ- Pl ane
H- Pol . (Peak.)	0. 40764	- 0. 699603	- 3. 588694
V- Pol . (Peak.)	- 3. 331827	- 5. 890321	- 4. 315256
H+V. (Peak.)	0. 864485	0. 036144	- 0. 926499
H-Pol . (Avg.)	- 3. 601958	- 4. 81098	- 8. 781966
V-Pol . (Avg.)	- 7. 389187	- 10. 593998	- 8. 767373
H+V. (Avg.)	- 2. 084898	- 3. 793313	- 5. 764364
Angle	XY- Pl ane	XZ- Pl ane	YZ- Pl ane
H- Pol . (Peak.)	240	90	120
V- Pol . (Peak.)	60	120	120
H+V. (Peak.)	240	90	120



Frequency = 2500 MHz



dBm	XY- Pl ane	XZ- Pl ane	YZ- Pl ane
H- Pol . (Peak.)	0. 899152	- 0. 849051	- 5. 443866
V- Pol . (Peak.)	- 3. 294259	- 6. 126252	- 0. 737176
H+V. (Peak.)	1. 051473	- 0. 048972	- 0. 013941
H-Pol . (Avg.)	- 3. 342121	- 4. 686666	- 8. 809909
V-Pol . (Avg.)	- 6. 92073	- 10. 702135	- 7. 421952
H+V. (Avg.)	- 1. 762506	- 3. 71654	- 5. 050418
Angle	XY- Pl ane	XZ- Pl ane	YZ- Pl ane
H- Pol . (Peak.)	240	90	120
V- Pol . (Peak.)	270	150	210
H+V. (Peak.)	240	90	210





Thanks for cooperation!