

HF-LPT230 Antenna Specification

Manufacturer: Shanghai High-Flying Electronics Technology Co., Ltd

Address: Building 17, No.1500 Zu Chongzhi Road, Pudong District, 201203, Shanghai, China;
201203

Antenna Name: HF-LPT230 On-board Chip Antenna

Antenna Type: PCB antenna

Antenna Frequency Band: 2400-2500MHz

Antenna Gain: 0.86 Max.

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

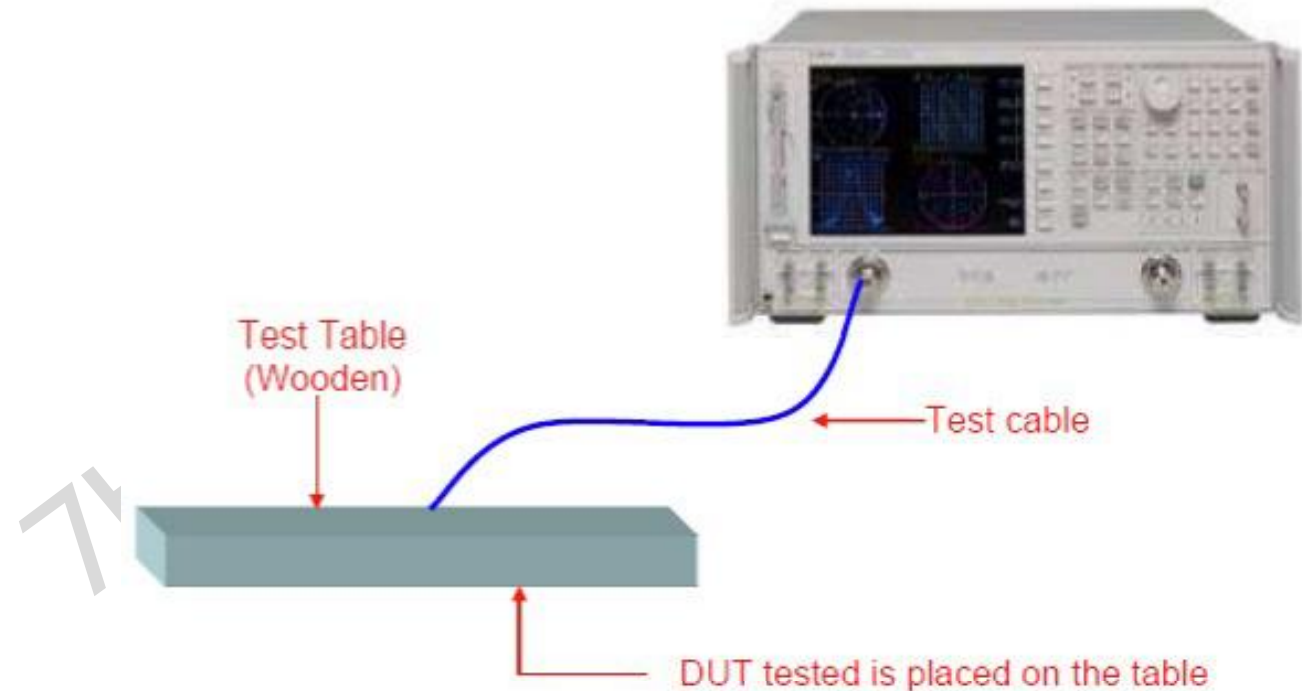
Test Result : 2D Radiation Pattern

● Result & Suggestions

Test Environment and Equipments

S-Parameter test

- Testing range from 9KHz to 8.5GHz or 300KHz~6.5GHz
- Network Analyzer(Agilent-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

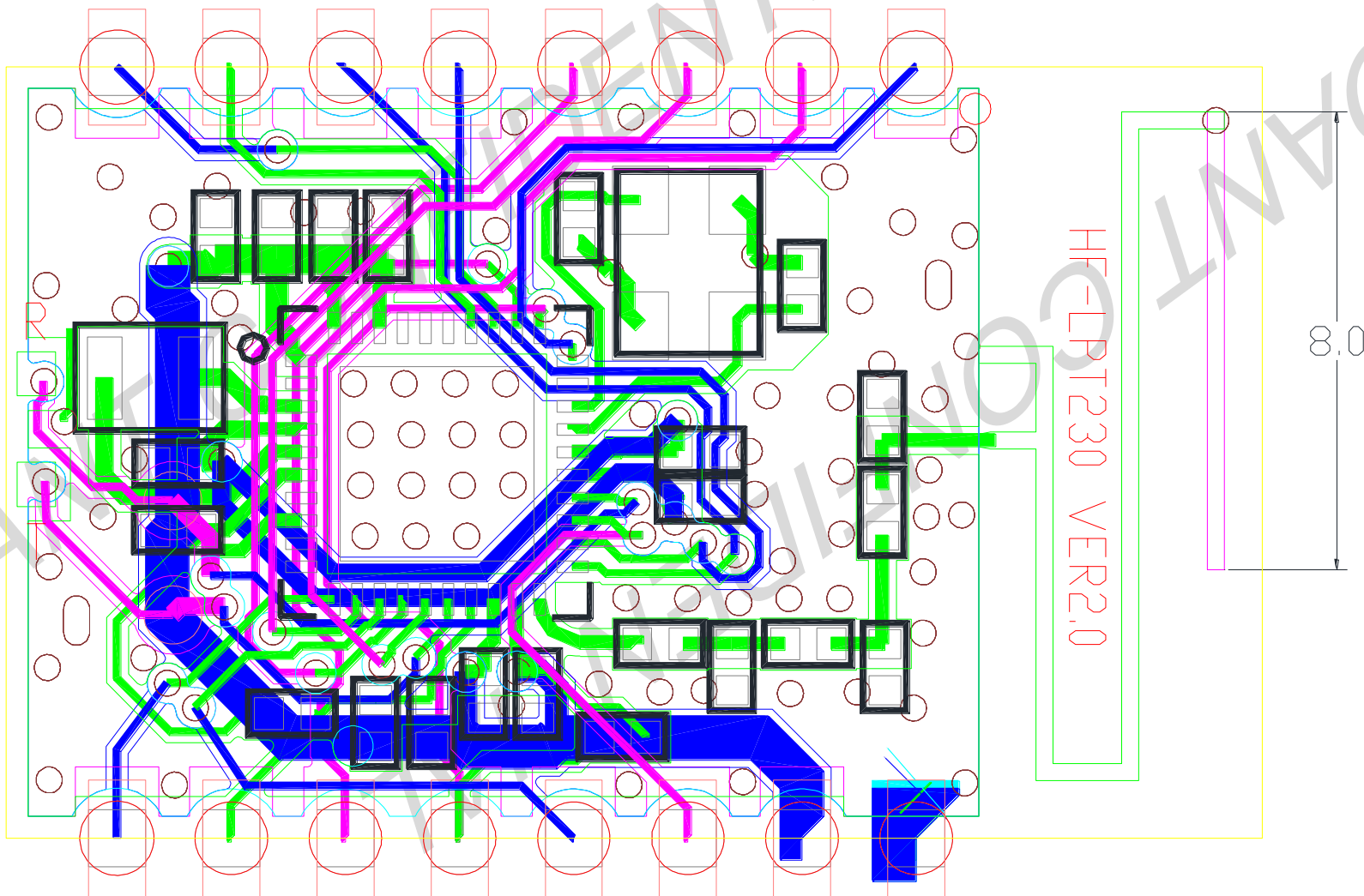


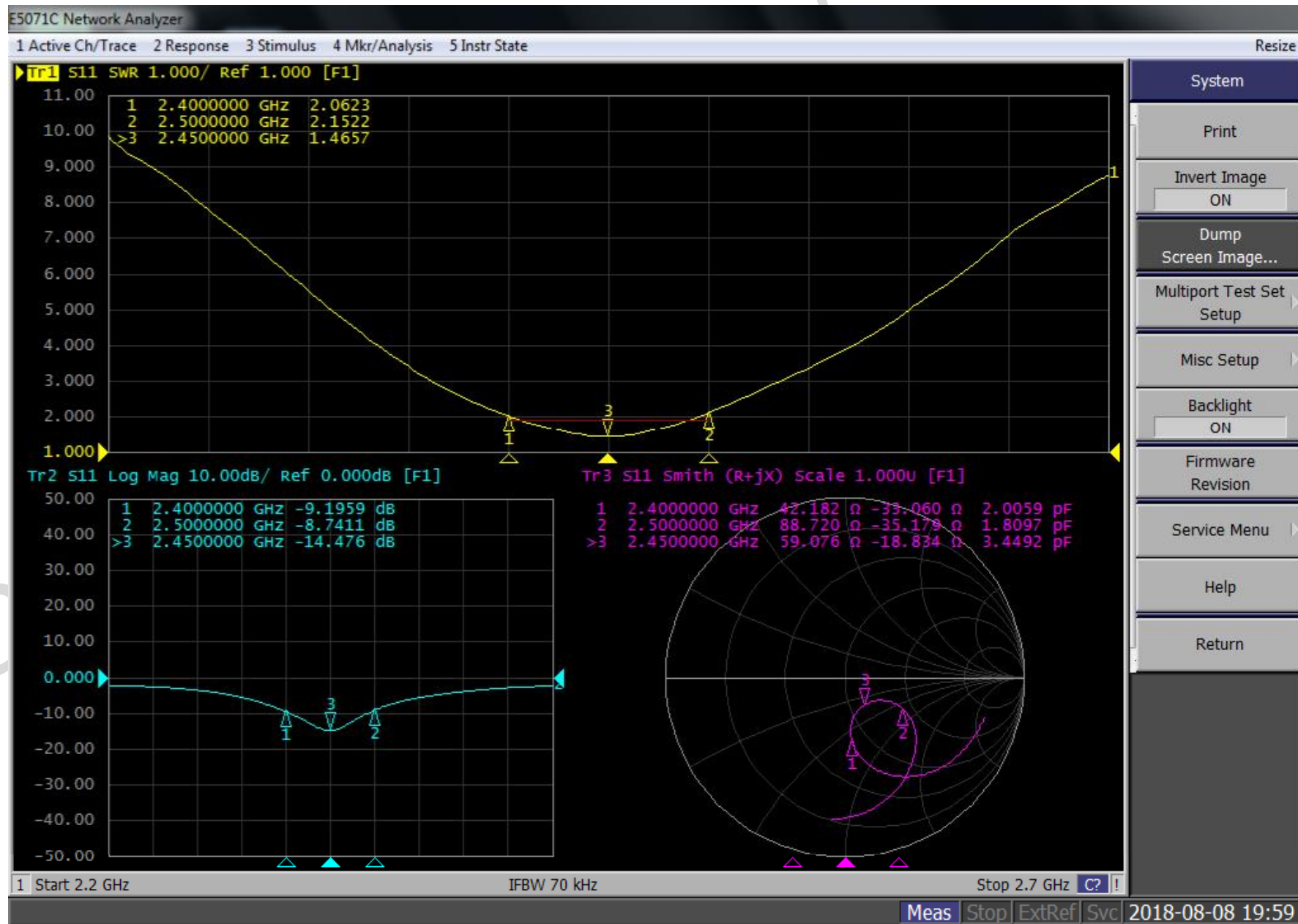
VSWR

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



天线Dimension

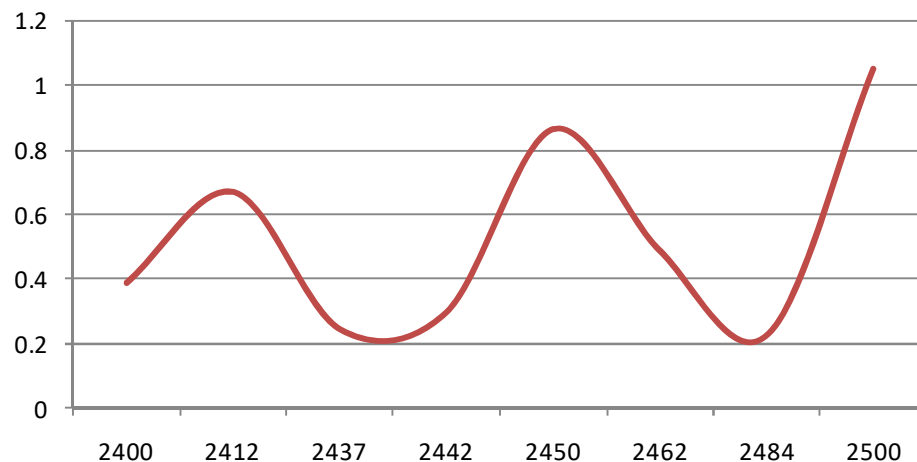




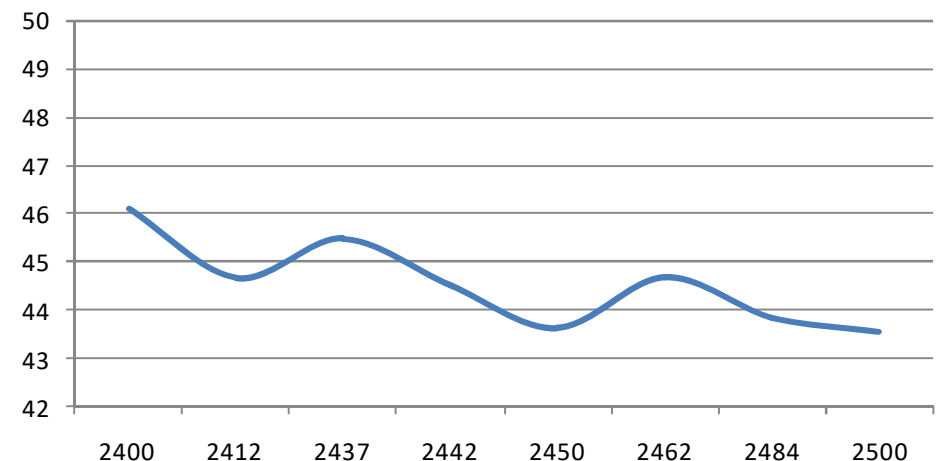
3D Total Date

Total/Frequency	Ant. Port Input	Tot. Rad. Pwr. (dBm)	Peak EIRP (dBm)	Directivity (dBi)	Efficiency (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

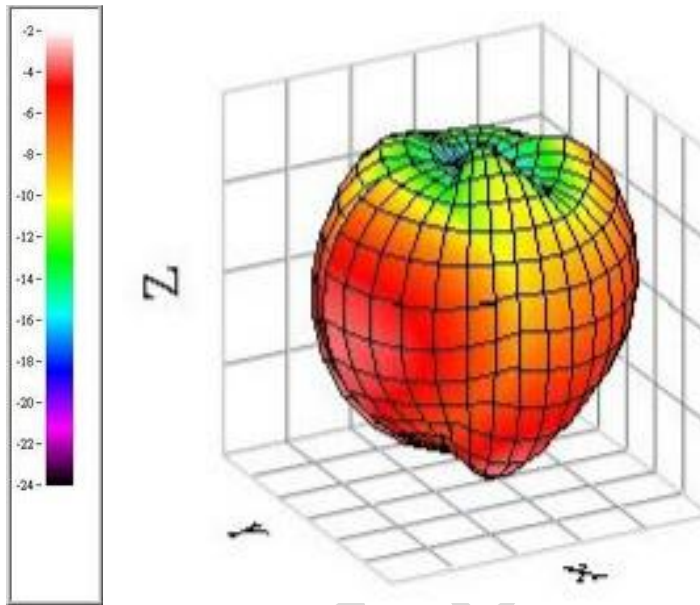
Gain(dBi)



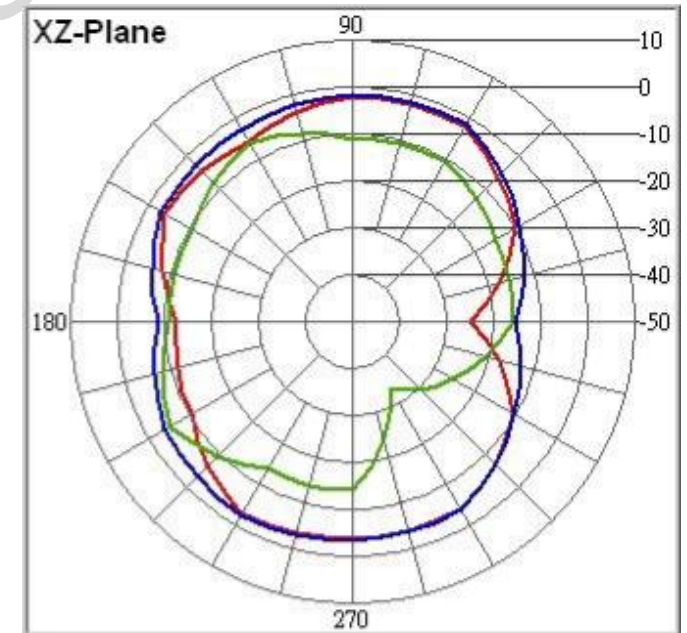
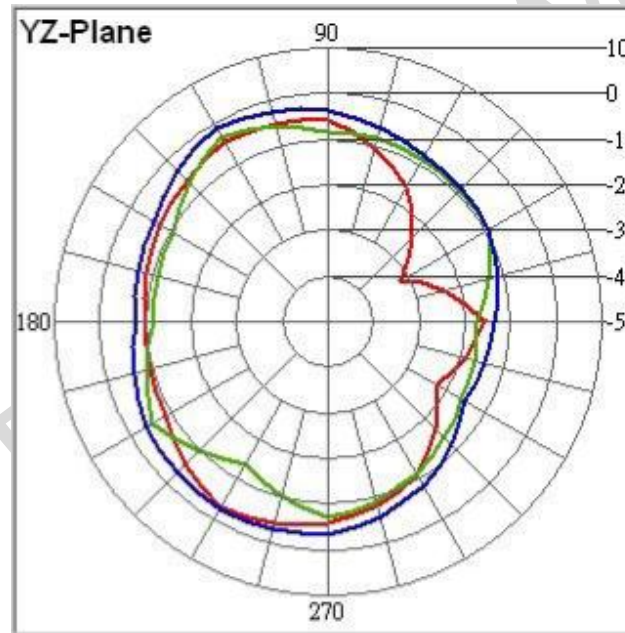
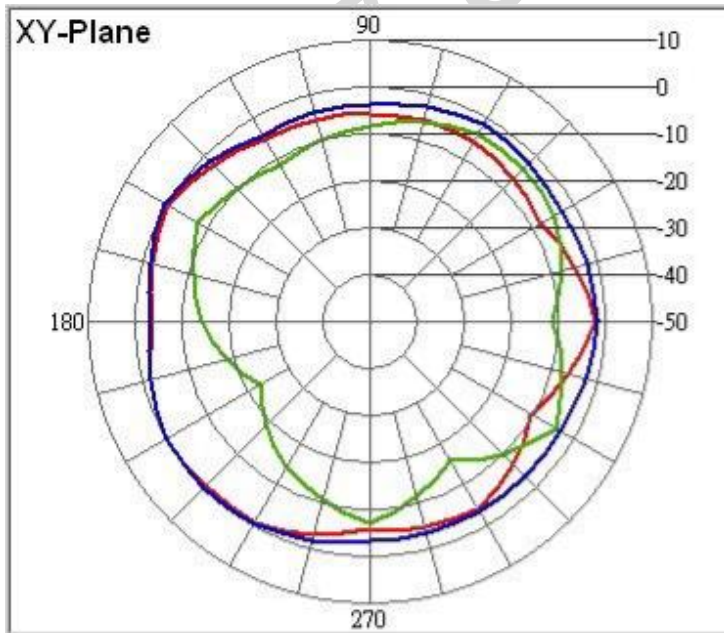
Efficiency(%)



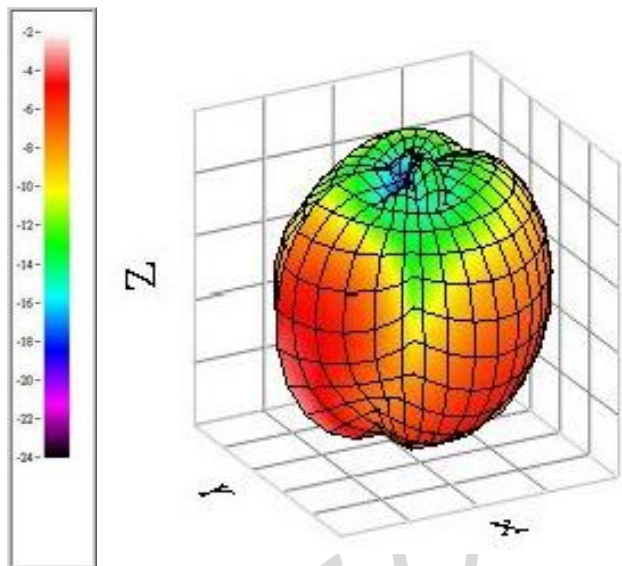
Frequency = 2400 MHz



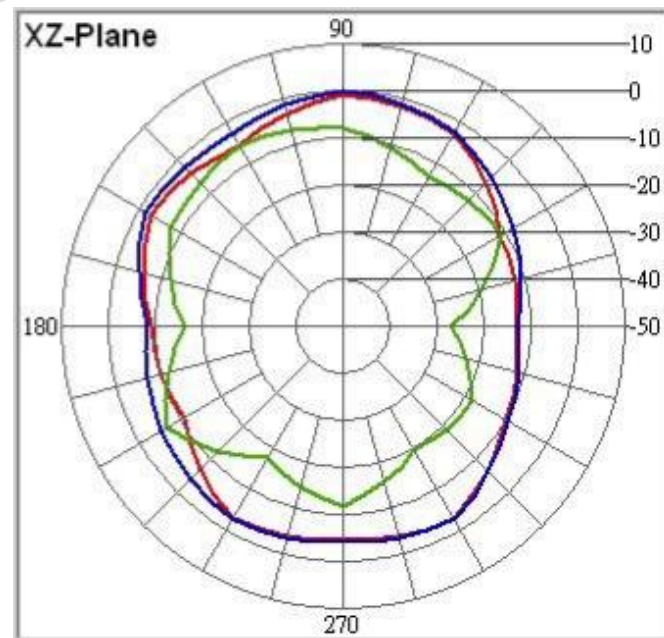
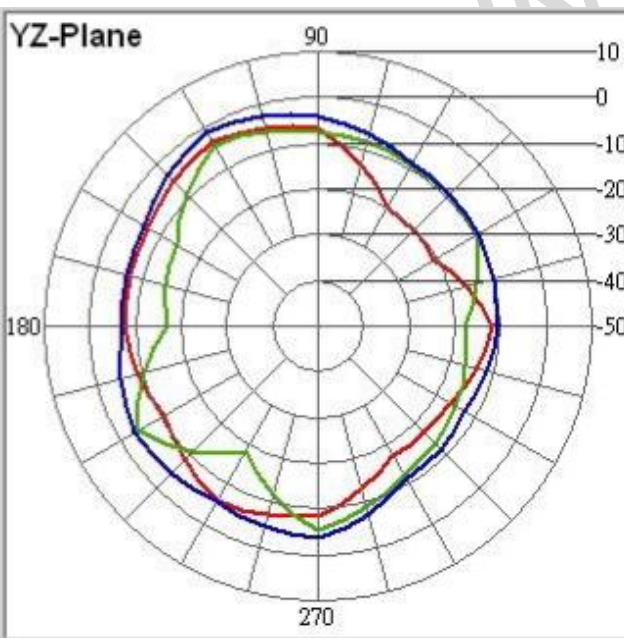
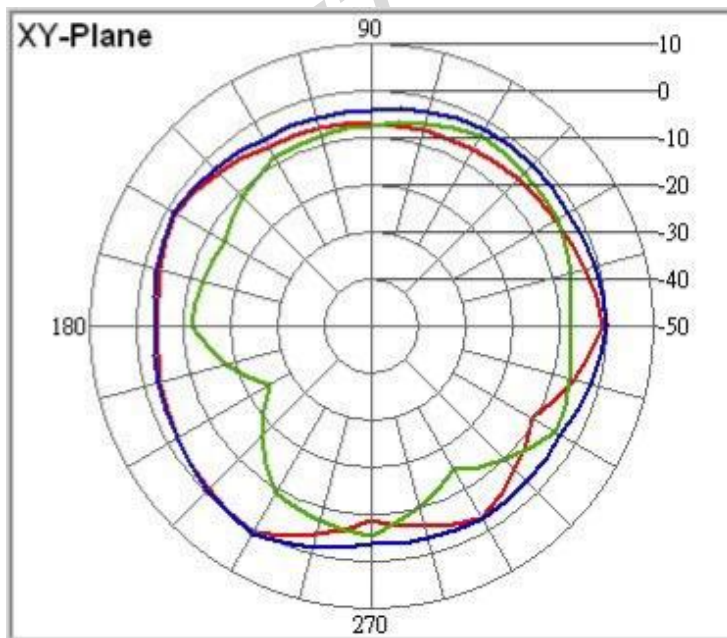
dBm	XY-Pl ane	XZ-Pl ane	YZ-Pl ane
H Pol . (Peak.)	0.139977	-2.090171	-3.032668
V- Pol . (Peak.)	-3.795009	-5.1371	-3.269062
H+V. (Peak.)	0.389235	-1.523236	-0.898339
H Pol . (Avg.)	-3.264823	-5.228177	-7.948598
V- Pol . (Avg.)	-8.029977	-10.711423	-8.683427
H+V. (Avg.)	-2.01392	-4.146155	-5.290189
Angle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



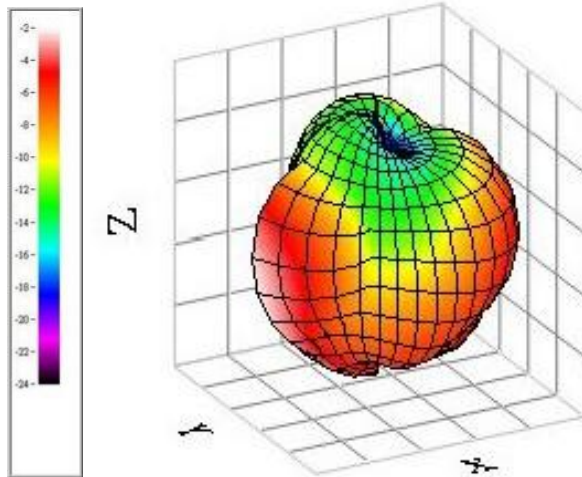
Frequency = 2450 MHz



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

