

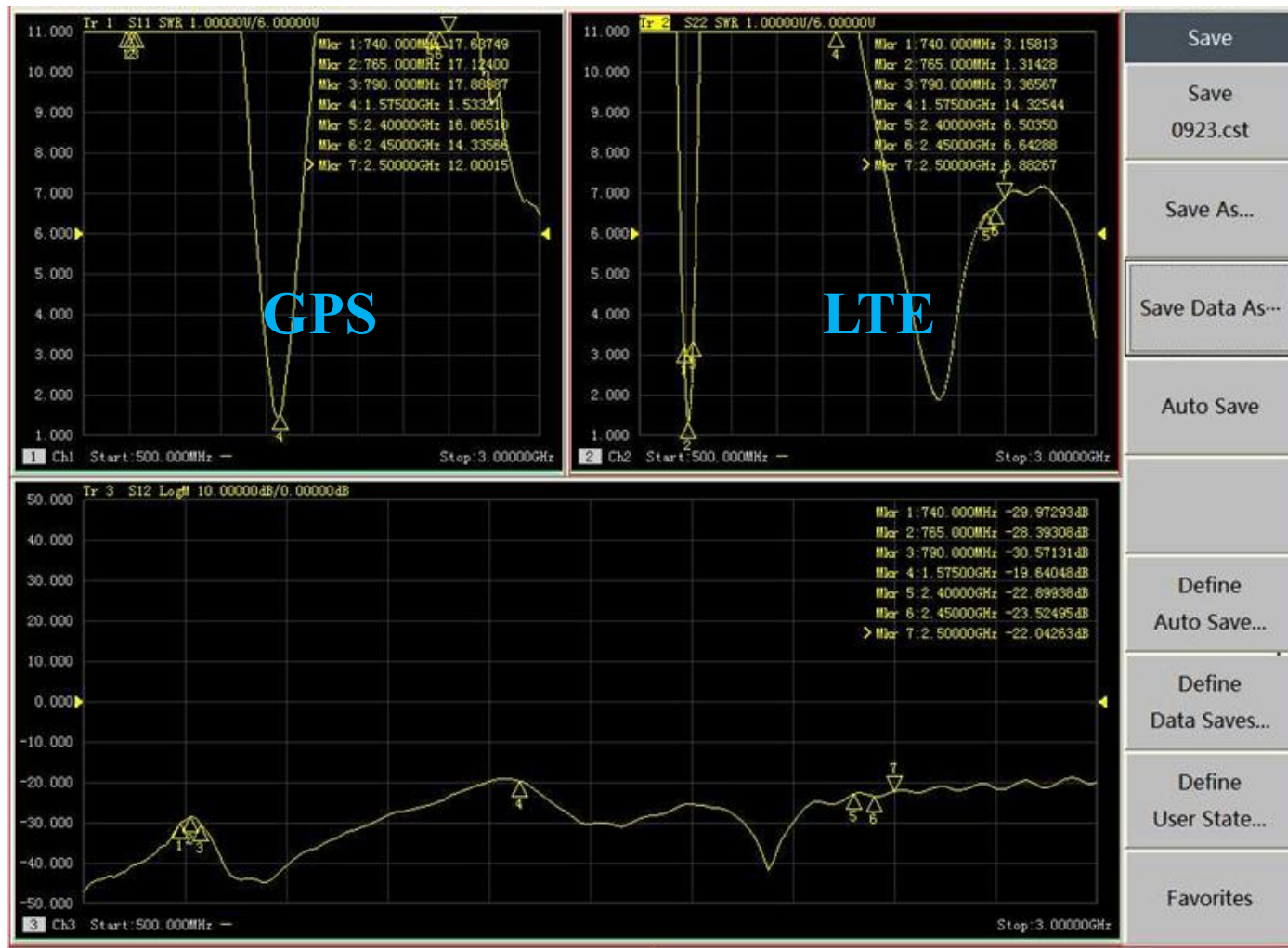


Outline

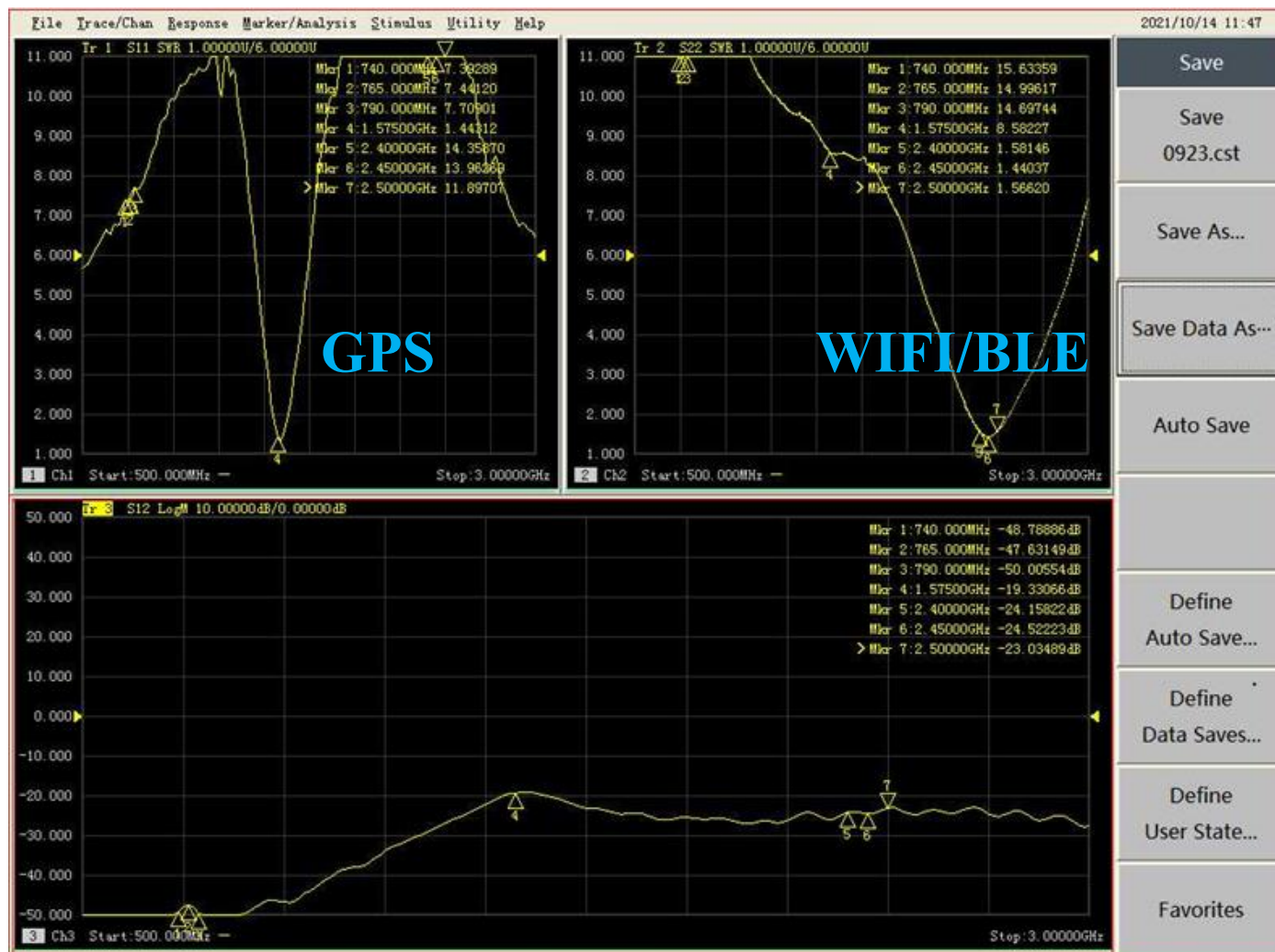
1. Benchmark
2. S-Parameters (**VSWR & isolation**)
3. Antenna Efficiency & Peak Gain
4. Radiation patterns
5. Summary

Customer: Inventec Appliances (Jiangning) Corporation
Project Name: SL1
Manufacture: JH
Antenna Type: PIFA
The test equipment list: EM-testing 24+E5071C
Designer: zw
Date: 2022/09/05

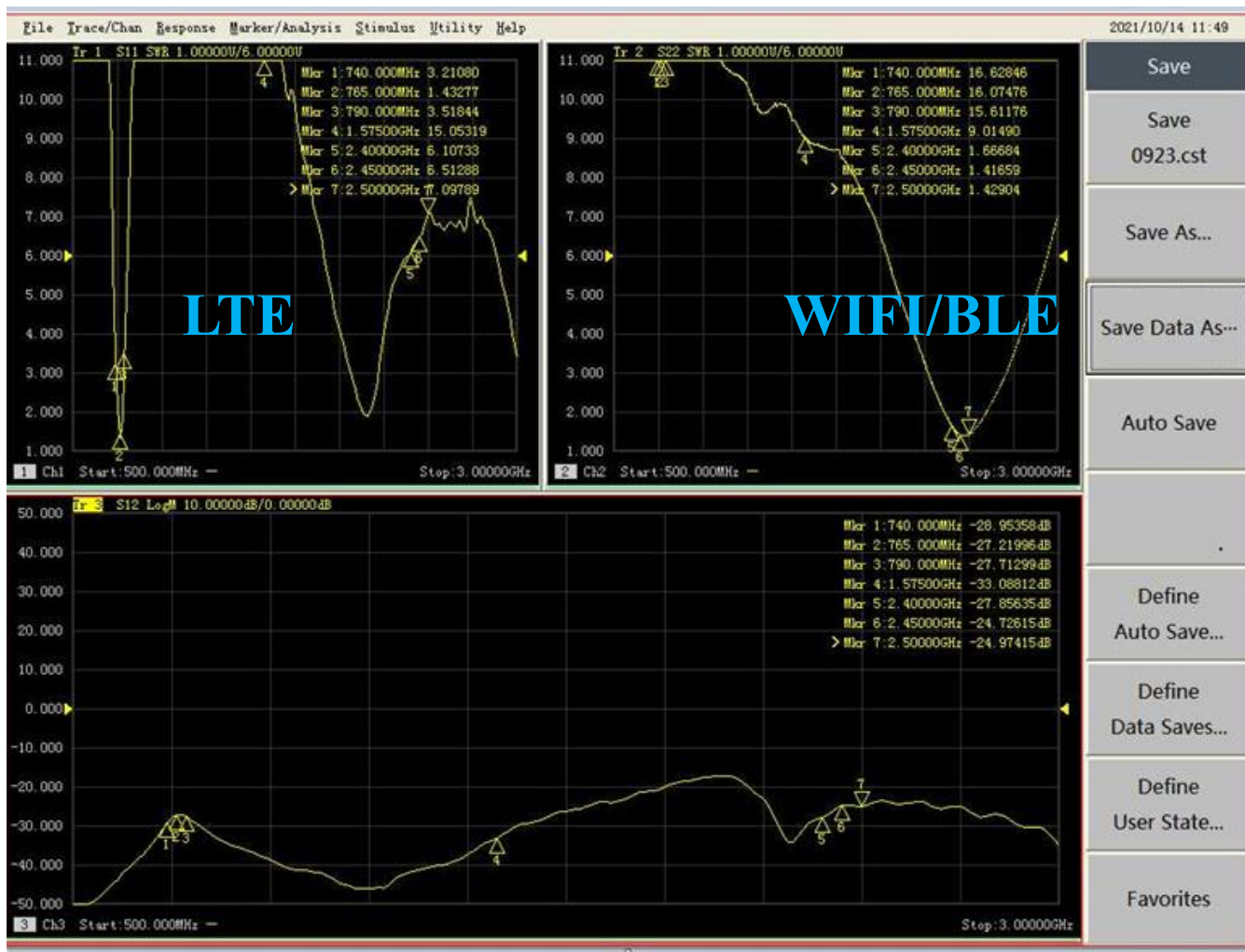
2.S-Parameters(VSWR & isolation)(gps lte)



2.S-Parameters(VSWR & isolation)(GPS WIFI/BLE)

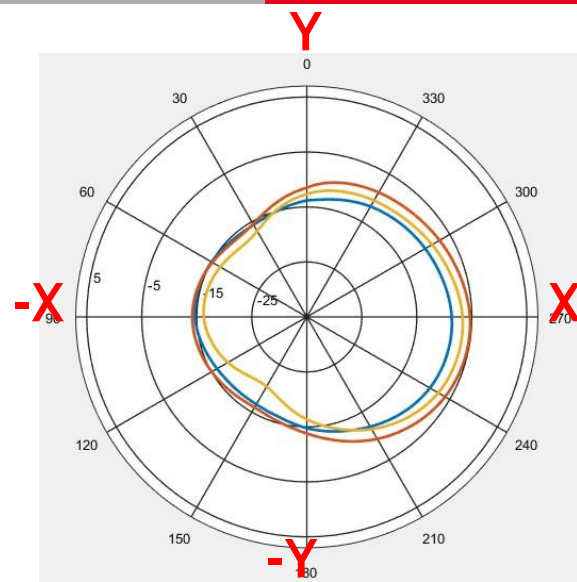
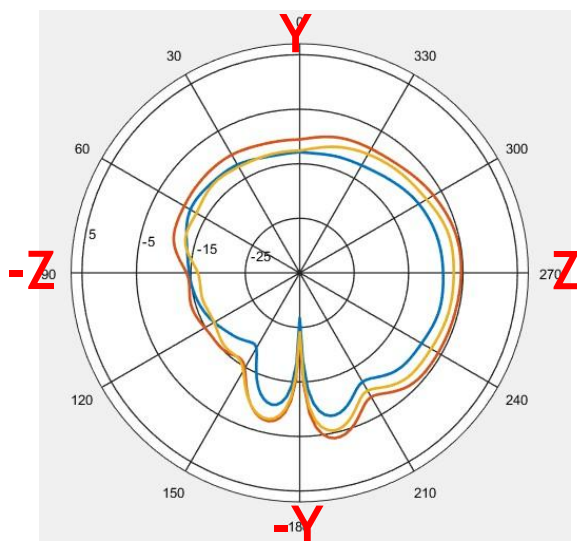
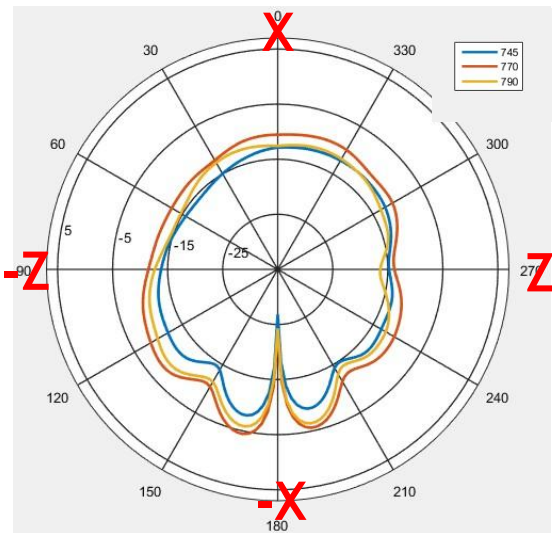


2.S-Parameters(VSWR & isolation)(LTE WIFI/BLE)



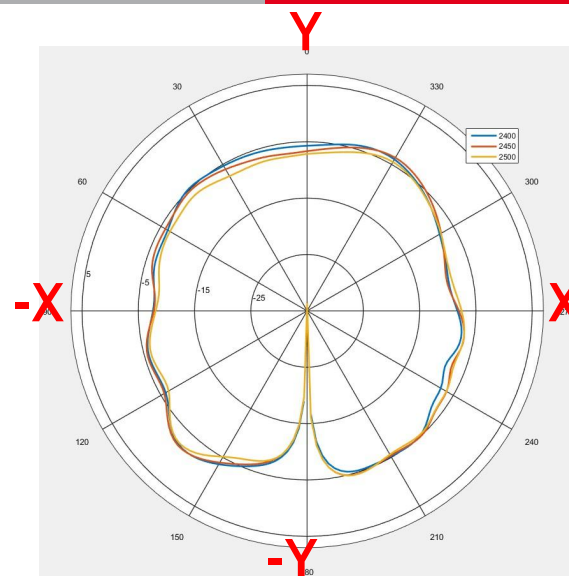
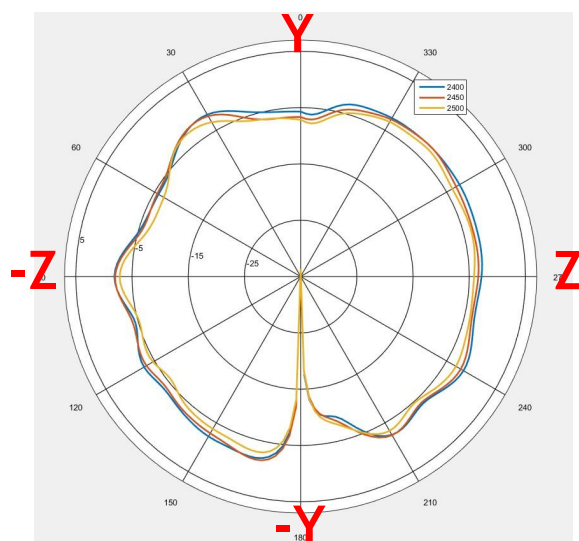
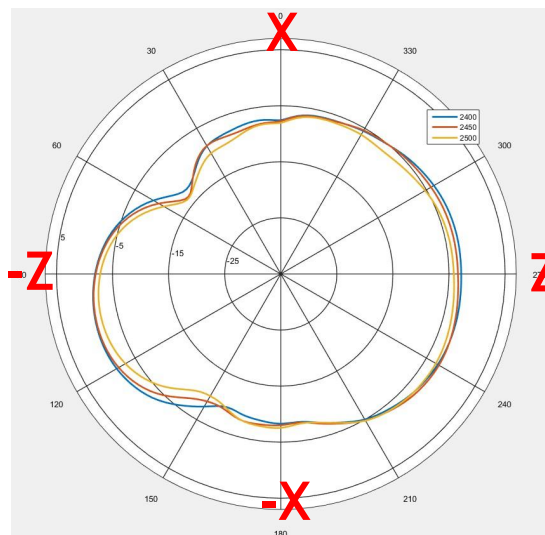


4. Radiation patterns (LTE)



Frequency	740MHz			770MHz			790MHz		
	ZX Plane	ZY Plane	XY Plane	ZX Plane	ZY Plane	XY Plane	ZX Plane	ZX Plane	ZX Plane
Max Gain (dB)	-7.9	-8.11	-8.54	-4.48	-4.02	-5.22	-5.87	-5.43	-6.57
Average Gain (dB)	-13.21	-12	-14.27	-10.78	-9.5	-12.72	-12.39	-10.97	-14.45

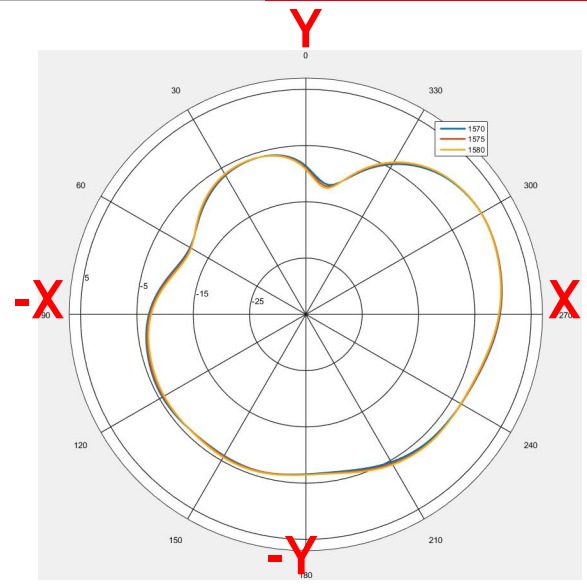
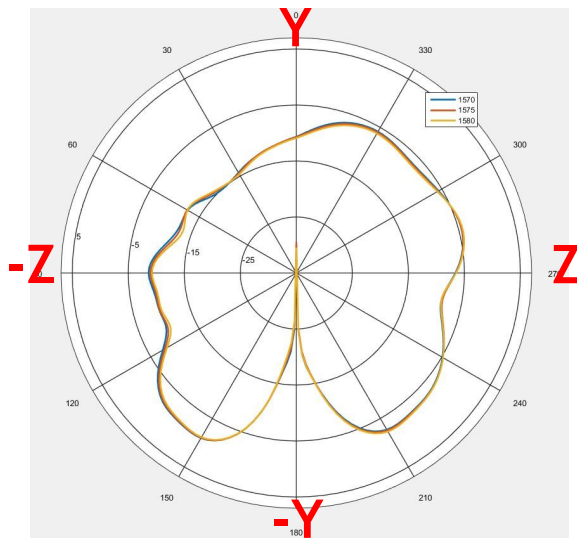
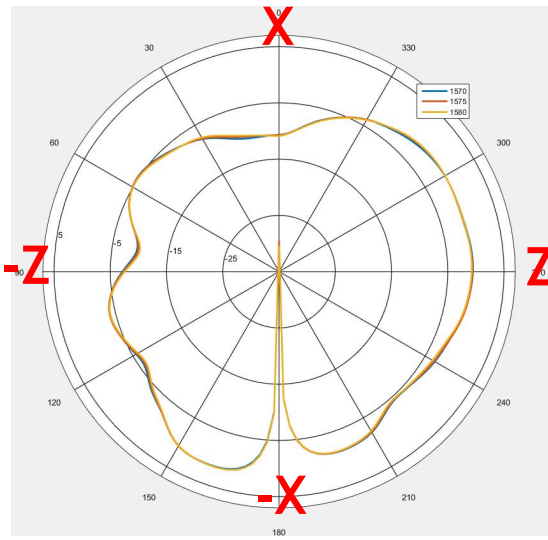
4. Radiation patterns (WIFI/BLE)



Frequency	2400MHz			2450MHz			2500MHz		
	ZX Plane	ZY Plane	XY Plane	ZX Plane	ZY Plane	XY Plane	ZX Plane	ZX Plane	ZX Plane
Max Gain (dB)	-1.98	-1.55	-0.83	-1.87	-1.51	-1.01	-2.33	-2.61	-2.03
Average Gain (dB)	-5.85	-2.99	-5.03	-5.96	-3.36	-5.17	-6.79	-4.14	-6.32



4. Radiation patterns (GPS)



Frequency	1570MHz			1575MHz			1580MHz		
	ZX Plane	ZY Plane	XY Plane	ZX Plane	ZY Plane	XY Plane	ZX Plane	ZX Plane	ZX Plane
Max Gain (dB)	-0.88	1.22	0.71	-0.93	1.56	0.99	-1.06	1.54	0.93
Average Gain (dB)	-8.17	-3.95	-6.53	-7.71	-4.09	-5.92	-7.99	-4.21	-5.94



5.Summary

1.The test data is as follows:

Item	Frequency(MHz)	745	770	790
LTE	Peak Gain(dBi)	-6.20	-3.40	-3.84
	Efficiency(%)	8.69	12.72	10.08

Item	Frequency(MHz)	2400	2450	2500
WIFI/BLE	Peak Gain(dBi)	2.12	2.75	1.68
	Efficiency(%)	47.69	48.43	48.53

Item	Frequency(MHz)	1570	1575	1580
GPS	Peak Gain(dBi)	1.70	1.79	1.68
	Efficiency(%)	39.93	40.20	39.86