



东莞市一佳电子通讯科技有限公司

Antenna Test Report

Contents:

- 1. Antenna Passive Test***
- 2. Device Profile***
- 3. LTE main Antenna Test***
- 4. GPS/WiFi/BT Antenna Test***
- 5. Antenna size***

Tester : Li Guang Lei

Approval : Yin Tao

Date : 2024 / 7 / 22

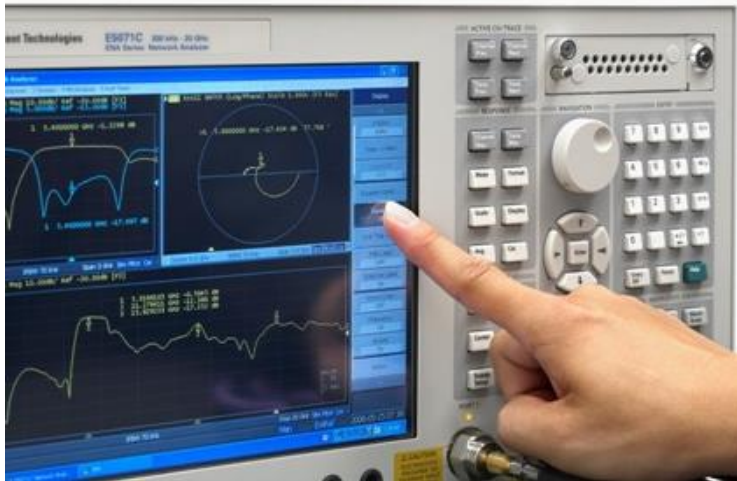
真诚 务实 开拓 创新



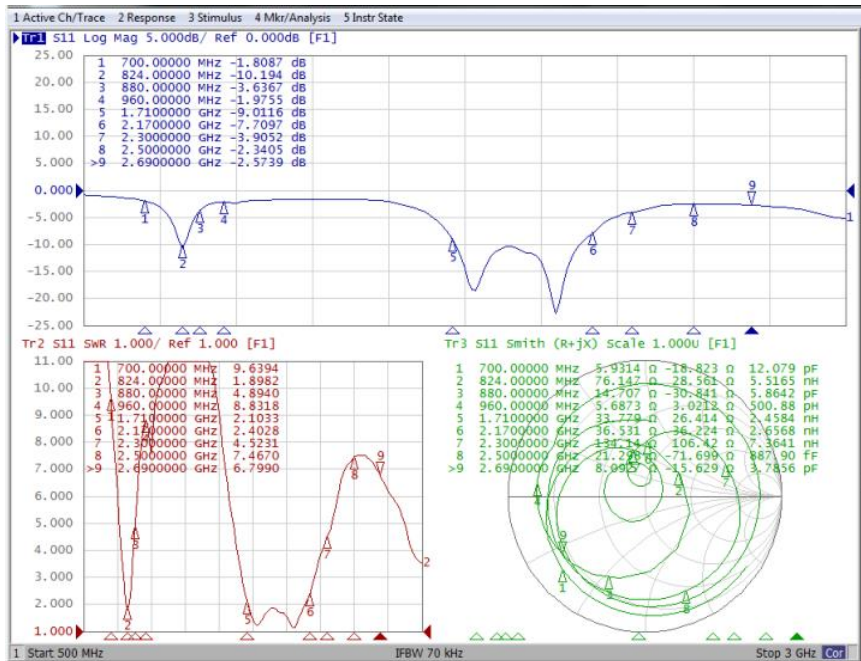
Project name	A6630-NA
Name of antenna	FPC
Antenna form	LTE PIFA
	GPS/WIFI/BT PIFA
Radiate	Omni-directional
Polarization	Line polarization



Agilent E5071B



S Parameter Test // LTE main Antenna





Passive Test For LTE Antenna

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
700	6.63	-11.78	-8.88
720	8.9	-10.51	-7.93
740	11.75	-9.3	-6.73
760	17.47	-7.58	-4.83
780	26.28	-5.8	-3.01
800	32.87	-4.83	-1.97
820	29.03	-5.37	-2.54
840	24.23	-6.16	-3.09
860	19.66	-7.06	-4
880	16.35	-7.86	-4.86
900	13.03	-8.85	-5.41



Passive Test For LTE Antenna

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1710	17.86	-7.48	-4.1
1750	26.61	-5.75	-1.98
1790	27.78	-5.56	-1.57
1830	25.82	-5.88	-1.04
1870	24.22	-6.16	-2.09
1910	28.31	-5.48	-1.64
1950	32.56	-4.87	-0.96
1990	37.02	-4.32	0.25
2030	35.34	-4.52	0.4
2070	27.79	-5.56	-0.44
2110	21.51	-6.67	-1.66
2150	16.27	-7.89	-2.84
2170	13.56	-8.68	-3.52

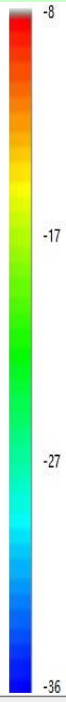
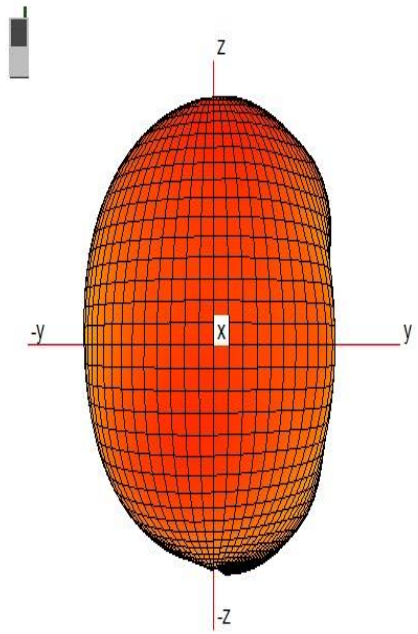


Radiation Pattern For LTE Antenna (700mhz)

Total

Azimuth: 0
Elevation: 0
Roll: 0

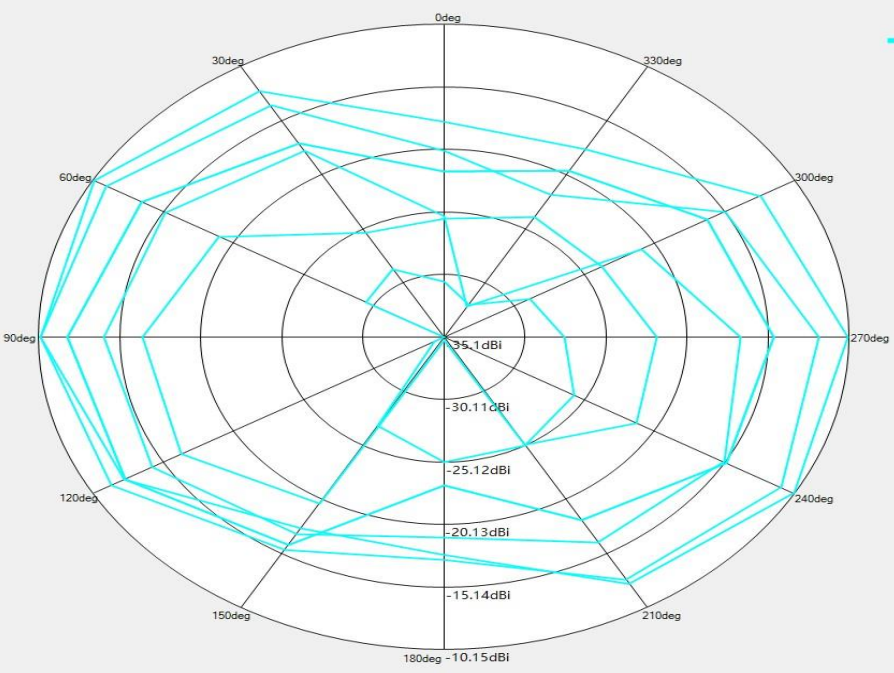
Zoom Scale



Data3D Data List Analysis Template

Frequency: 700 ☐ Spline ☒ Theta Section ☐ Phi Section ☒ Theta ☐ Phi ☐ Total

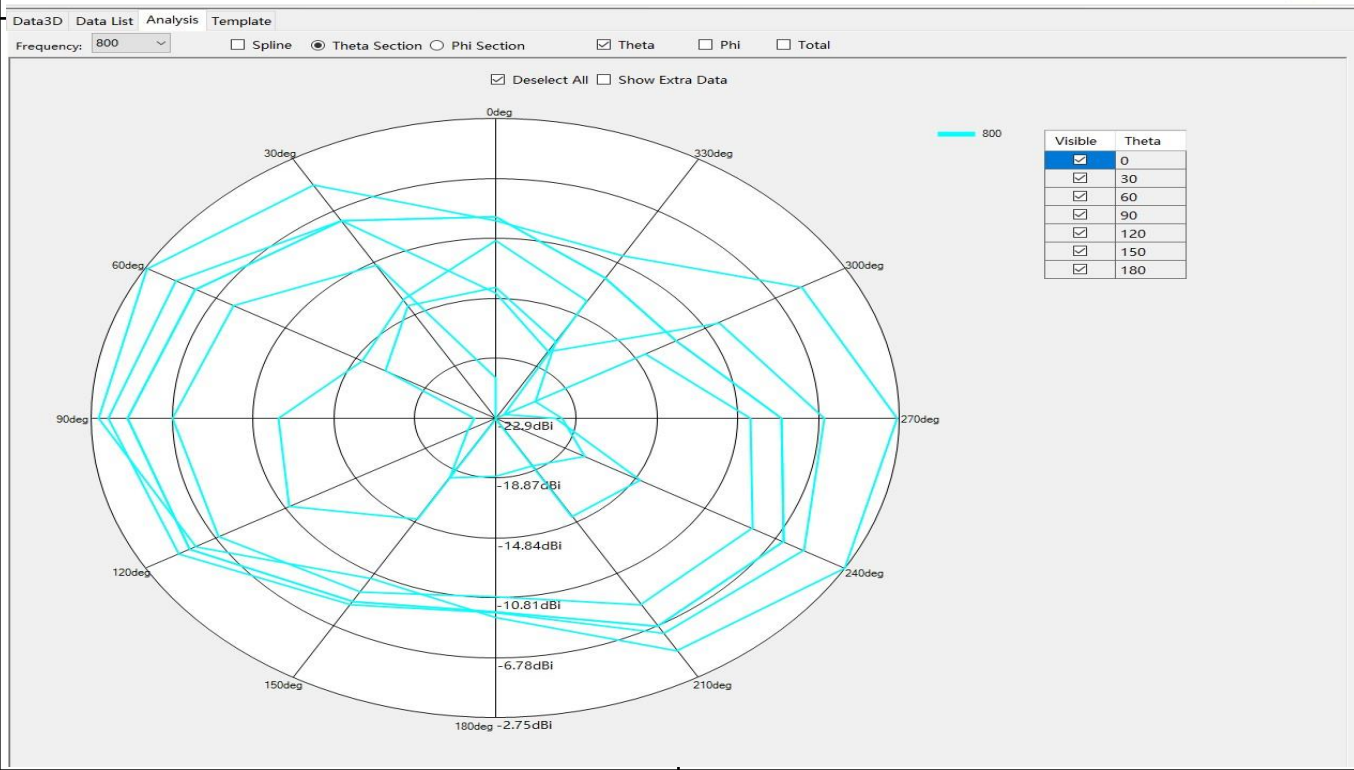
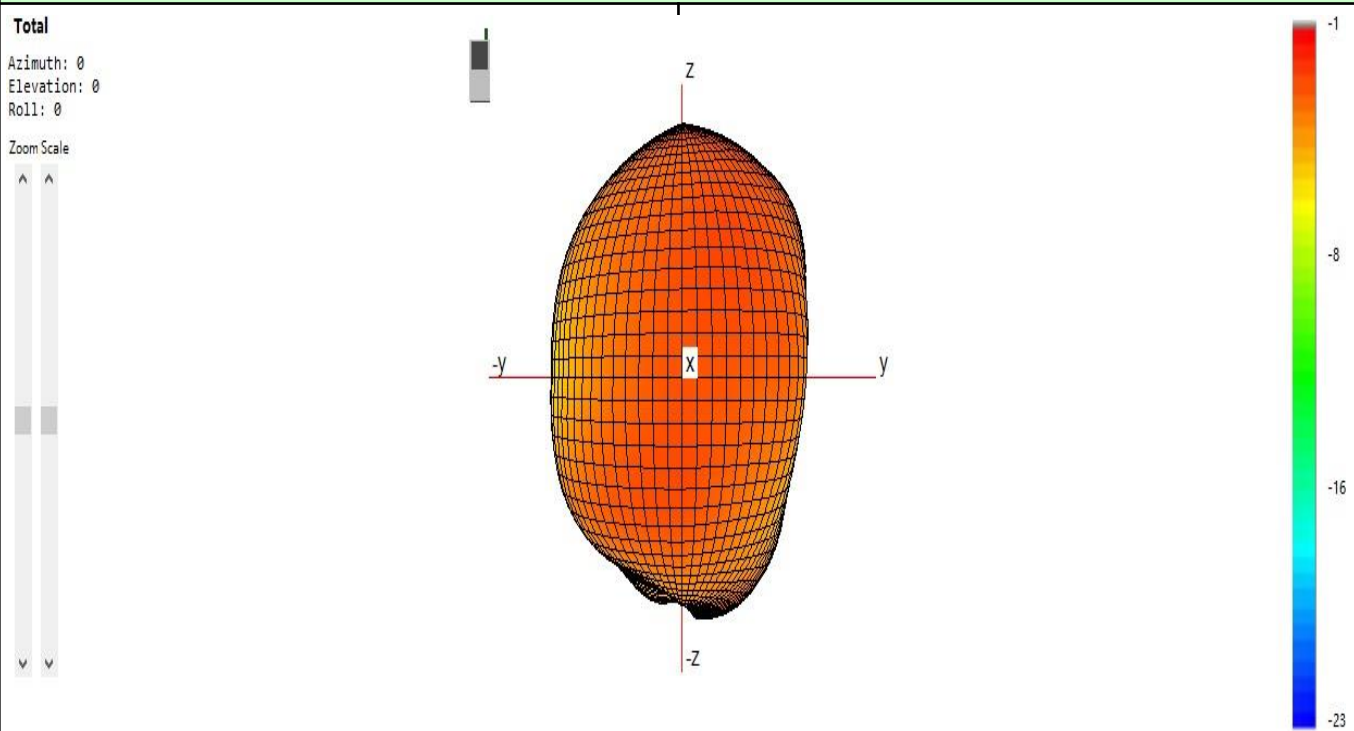
☒ Deselect All ☐ Show Extra Data



Visible	Theta
☒	0
☒	30
☒	60
☒	90
☒	120
☒	150
☒	180

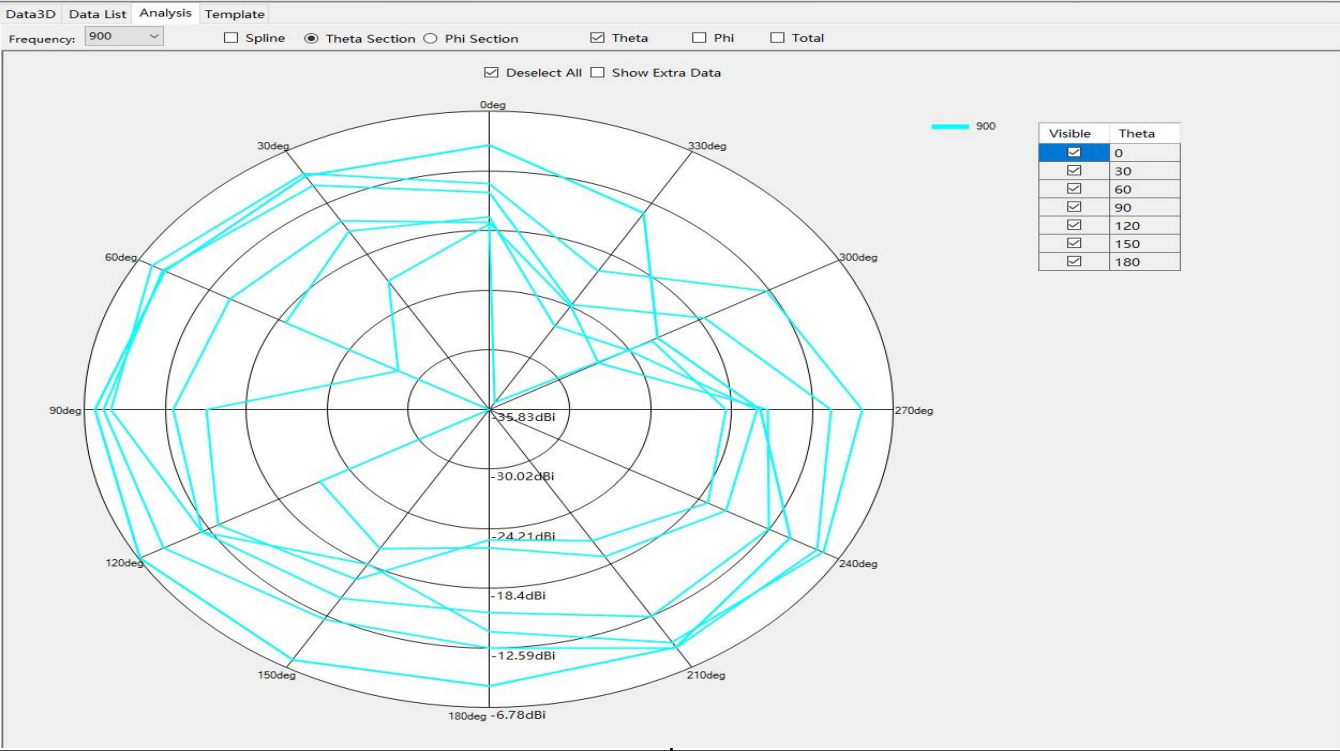
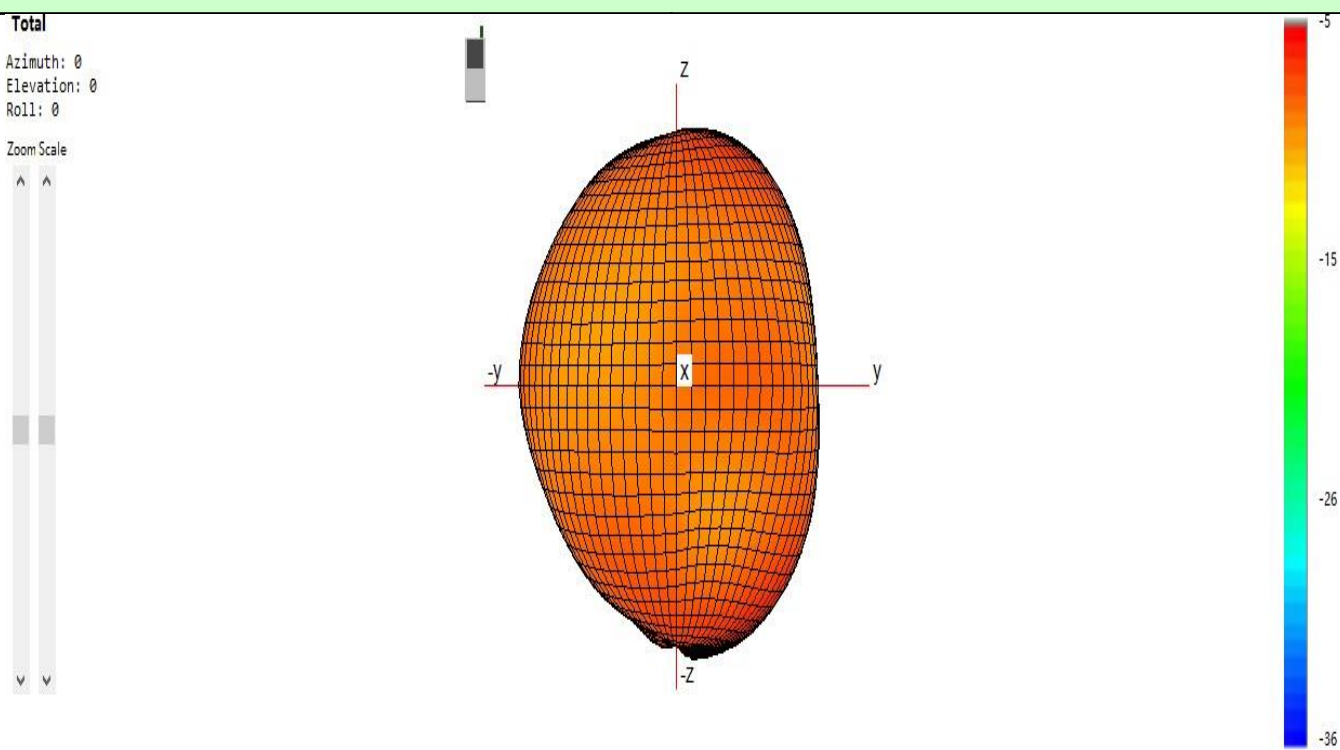


Radiation Pattern For LTE Antenna (800mhz)



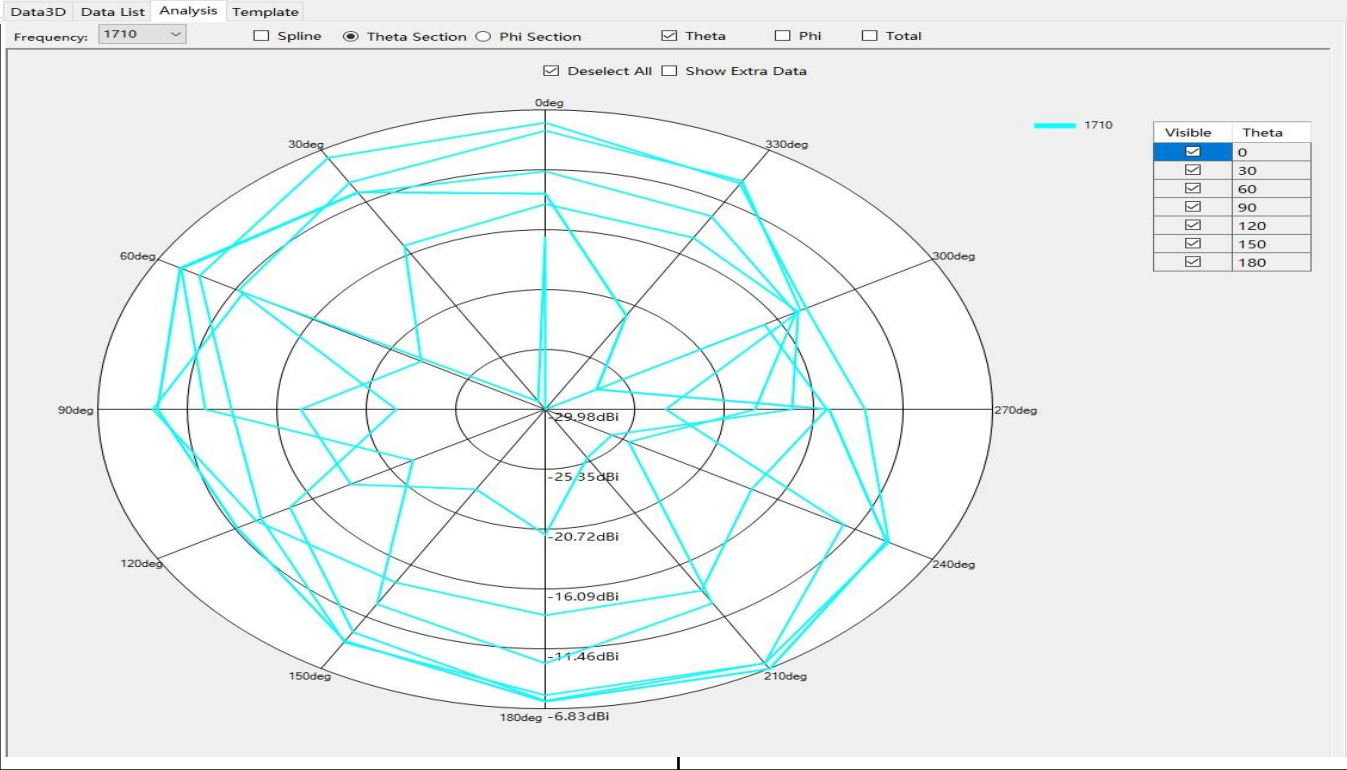
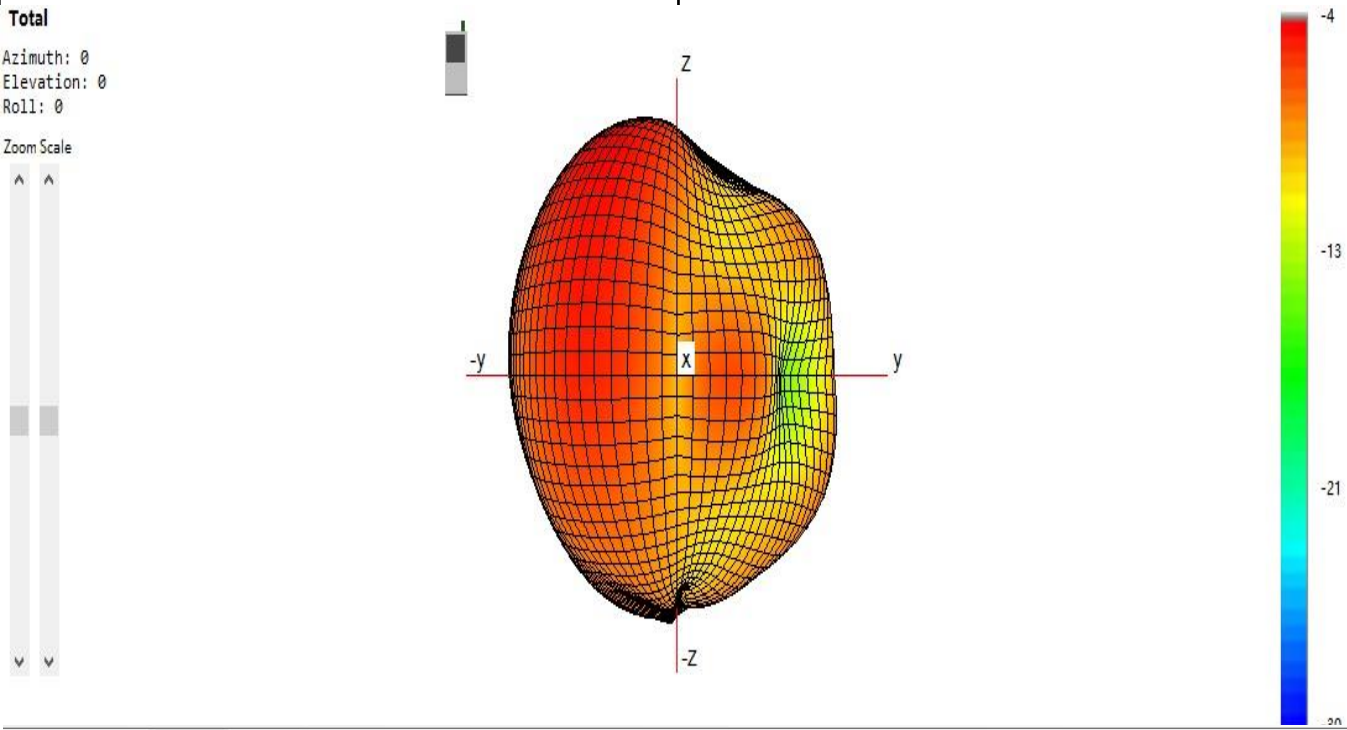


Radiation Pattern For LTE Antenna (900mhz)



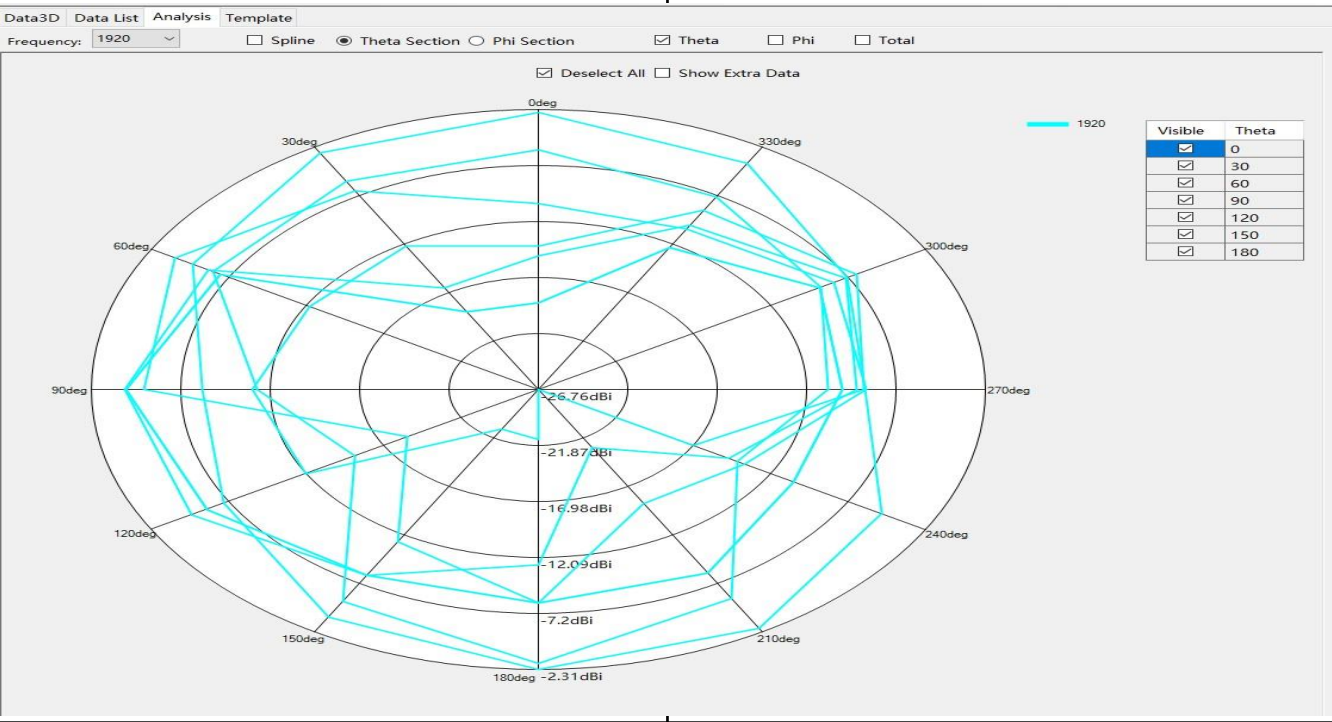
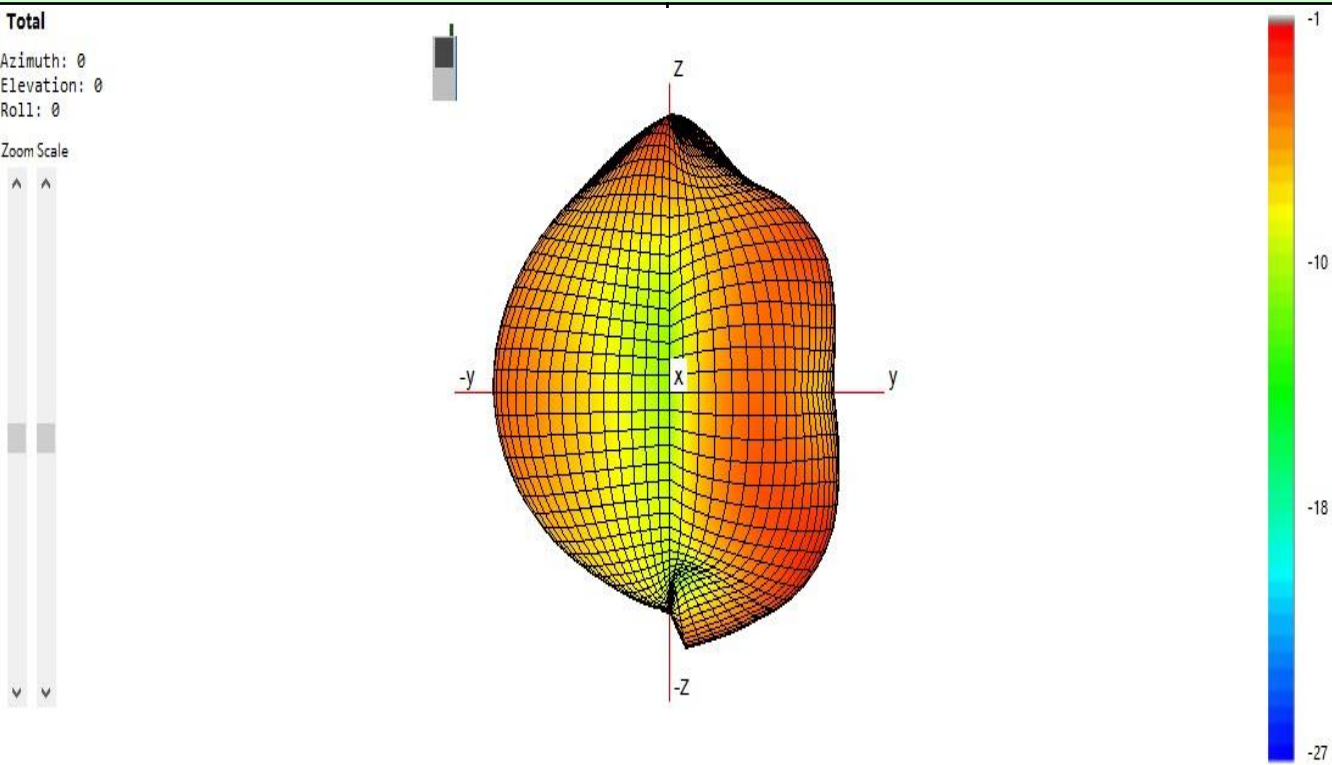


Radiation Pattern For LTE Antenna (1710mhz)



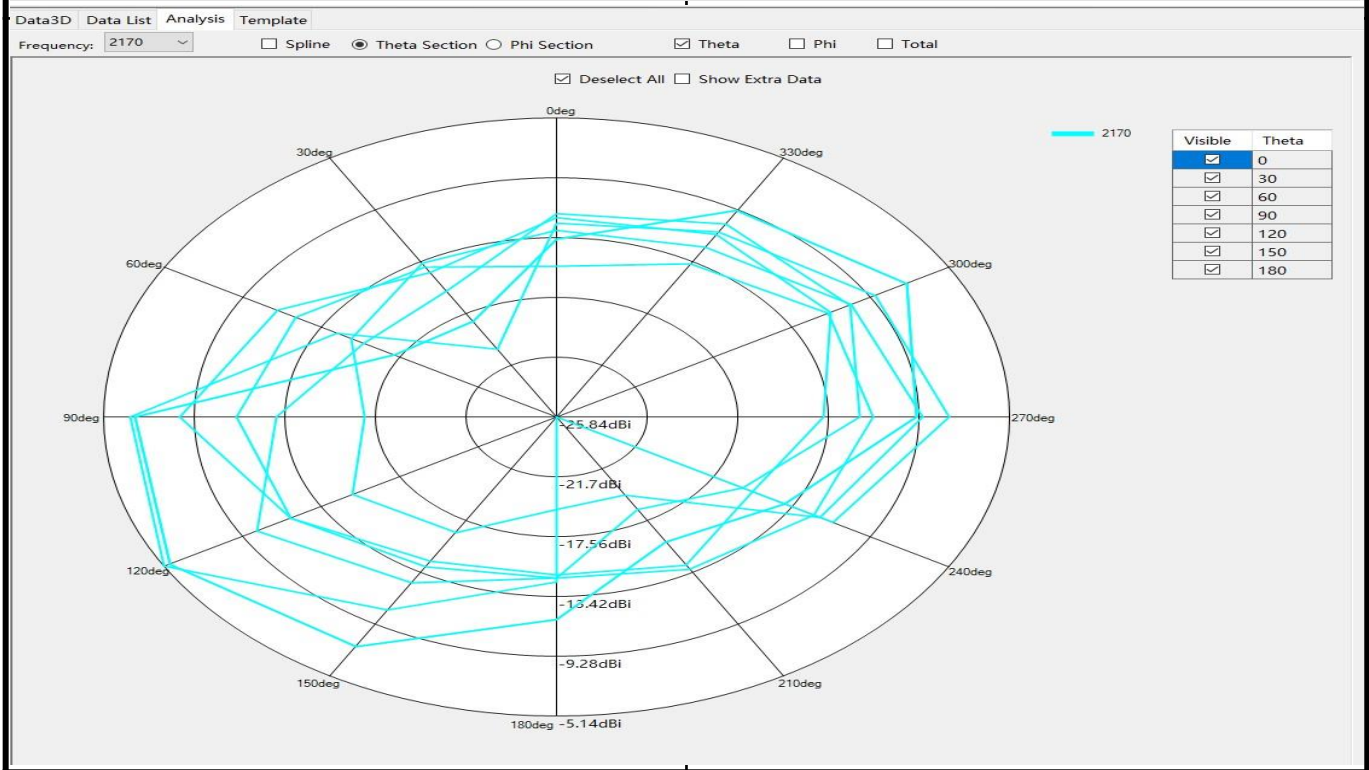
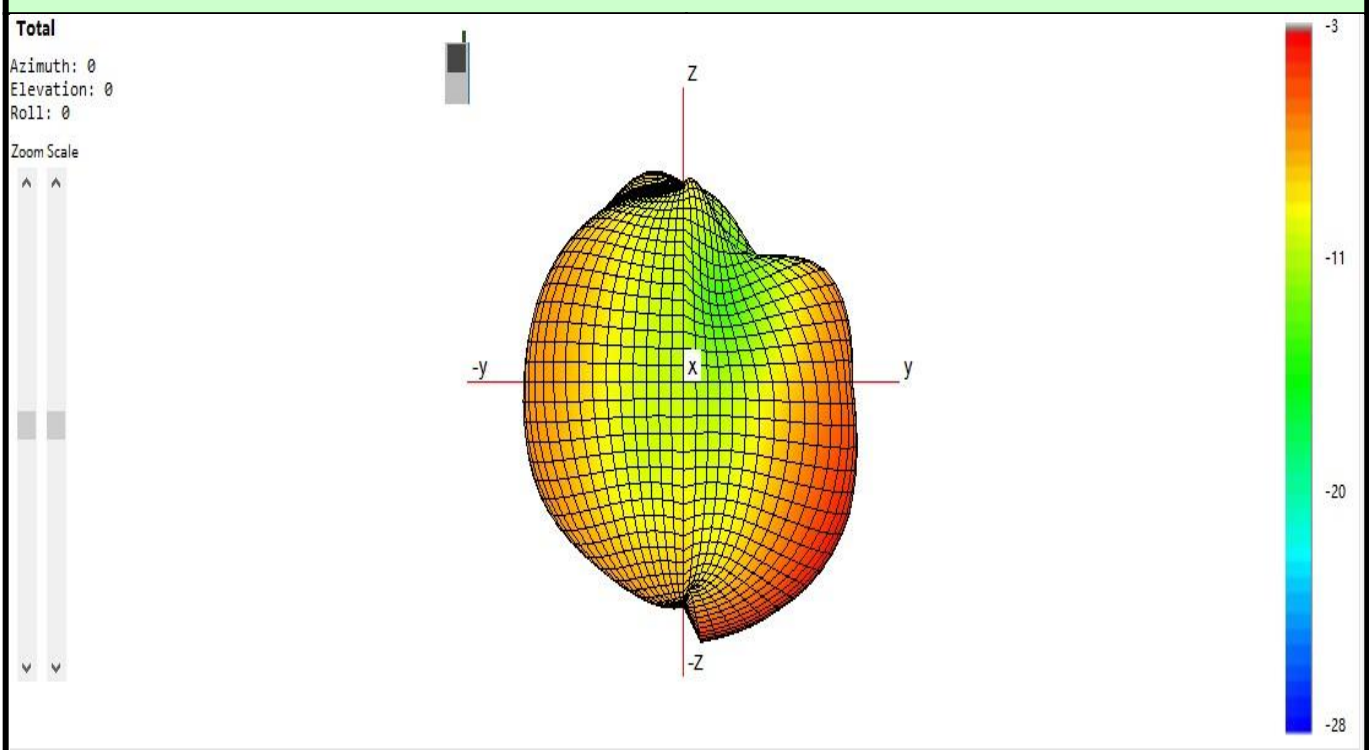


Radiation Pattern For LTE Antenna (1920mhz)



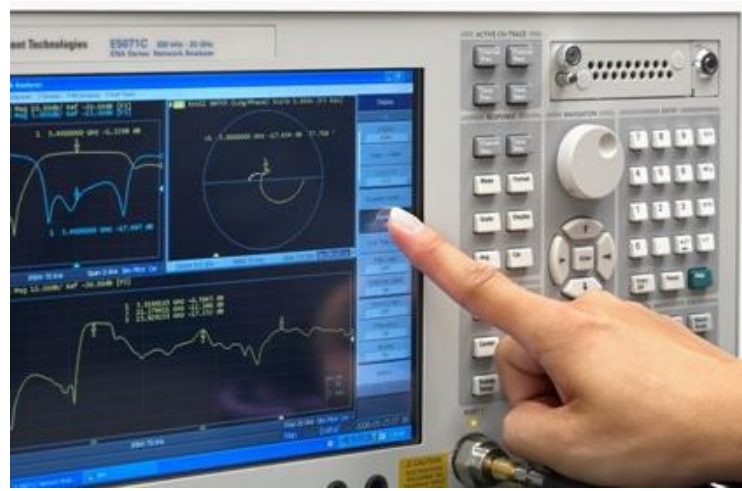


Radiation Pattern For LTE Antenna (2170mhz)

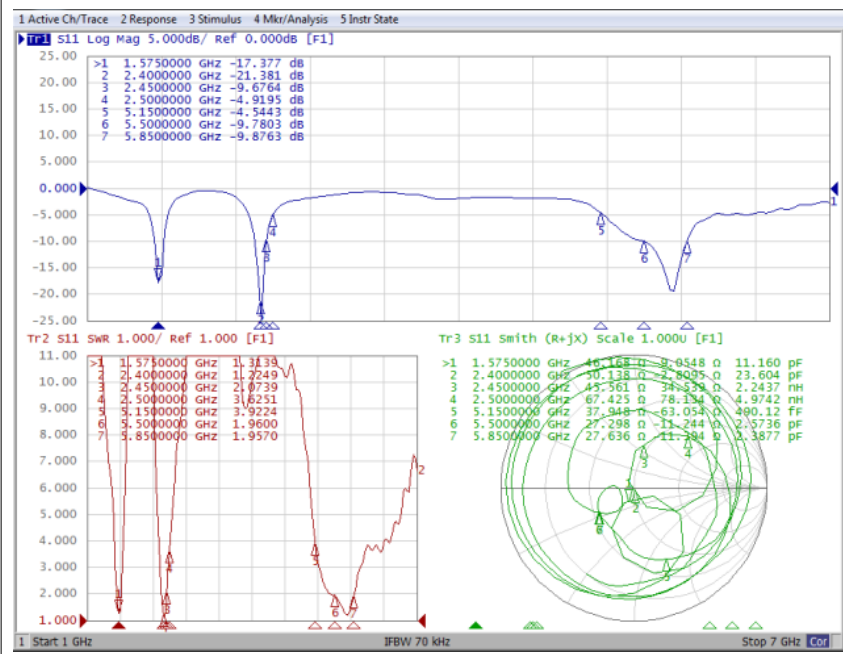




Agilent E5071B



S Parameter Test // Gps/WiFi/BT Antenna





Passive Test For GPS Antenna

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1560	32.1	-4.94	0.84
1565	31.78	-4.98	0.81
1570	31.55	-5.01	0.78
1575	31.26	-5.05	0.73
1580	30.81	-5.11	0.65
1585	30.37	-5.18	0.57

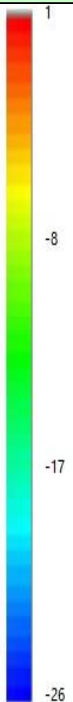
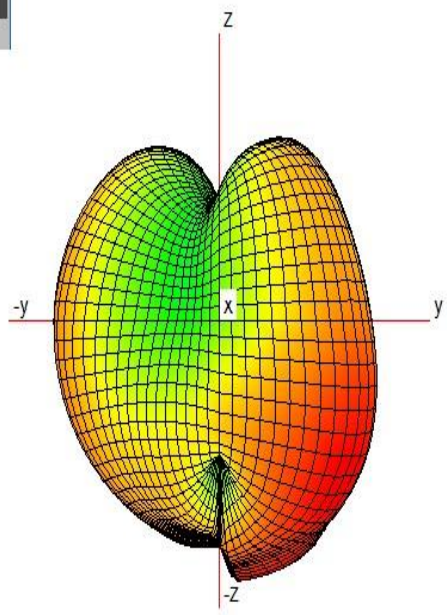


Radiation Pattern For GPS Antenna (1570mhz)

Total

Azimuth: 0
Elevation: 0
Roll: 0

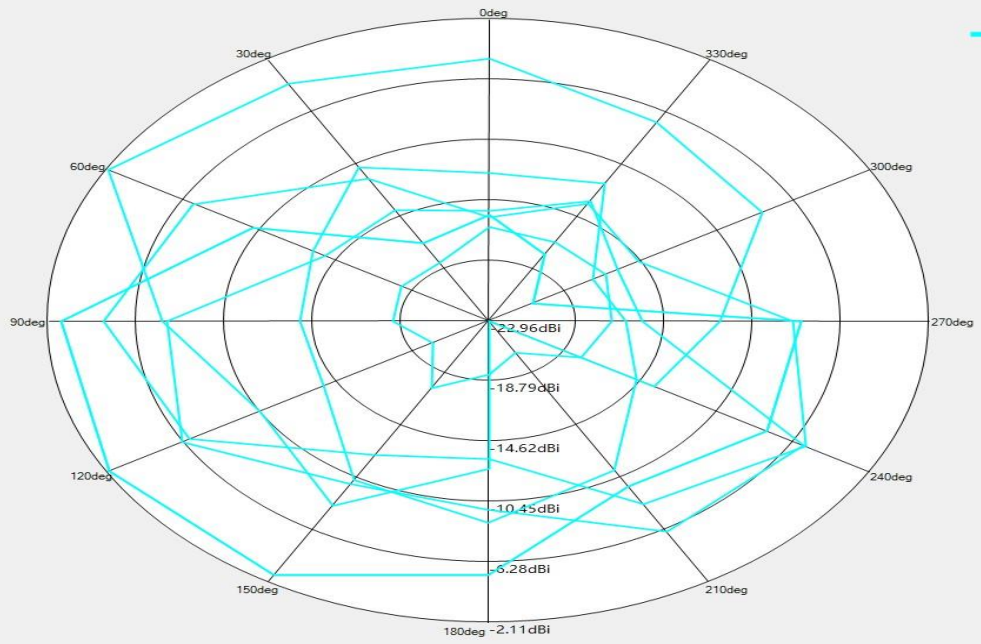
Zoom Scale



Data3D Data List Analysis Template

Frequency: 1570 ☐ Spline ☒ Theta Section ☐ Phi Section ☒ Theta ☐ Phi ☐ Total

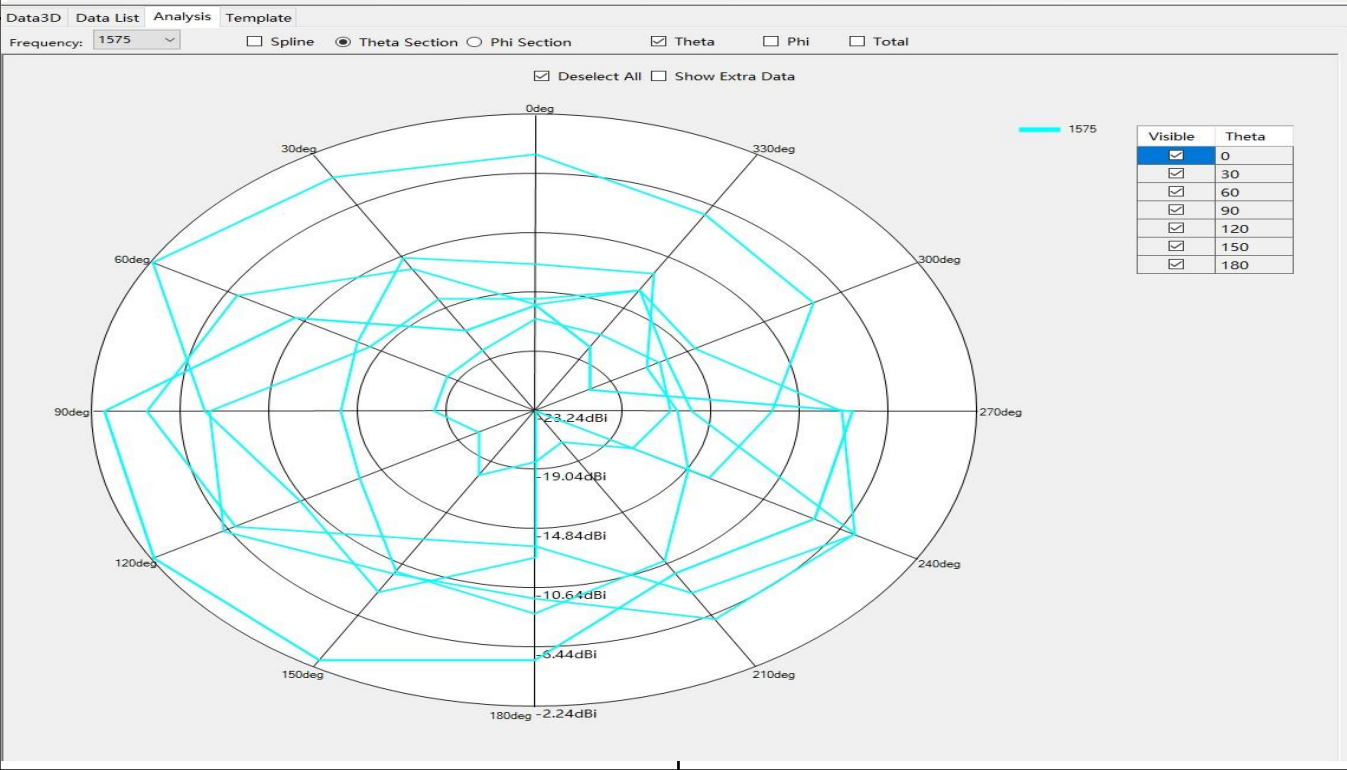
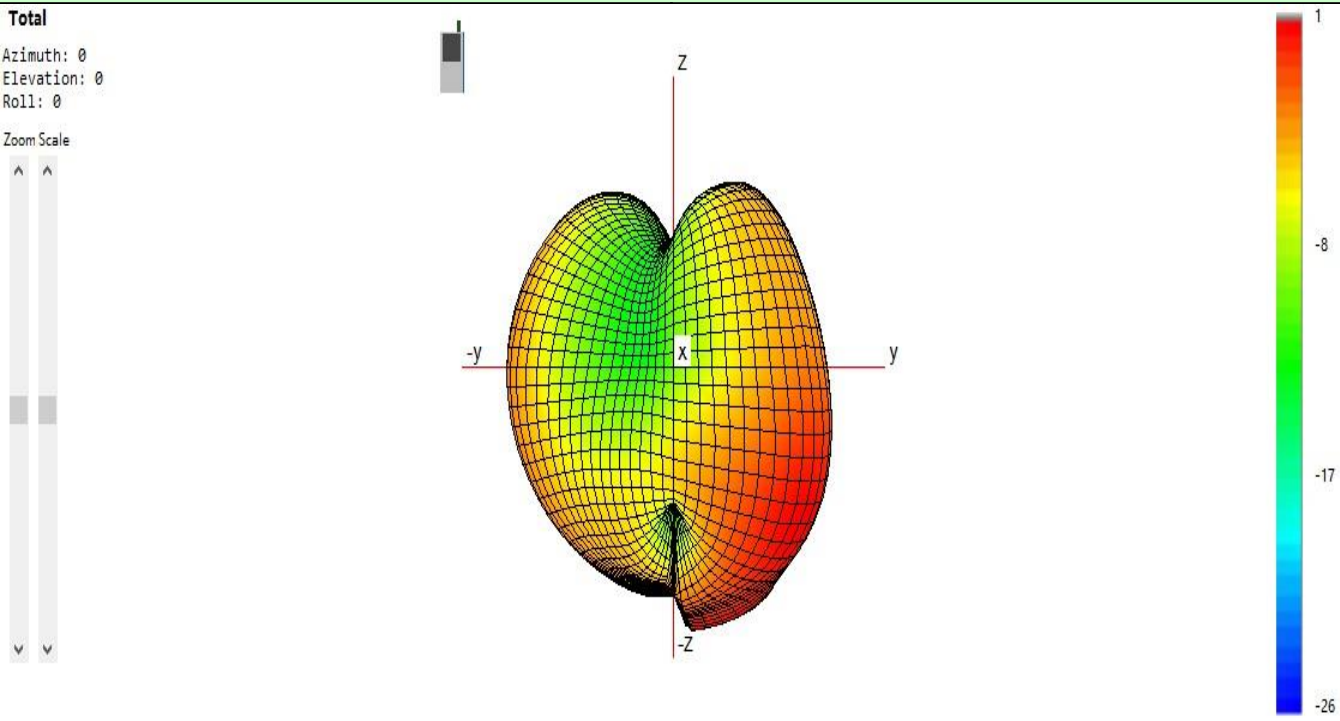
☒ Deselect All ☐ Show Extra Data



Visible	Theta
☒	0
☒	30
☒	60
☒	90
☒	120
☒	150
☒	180

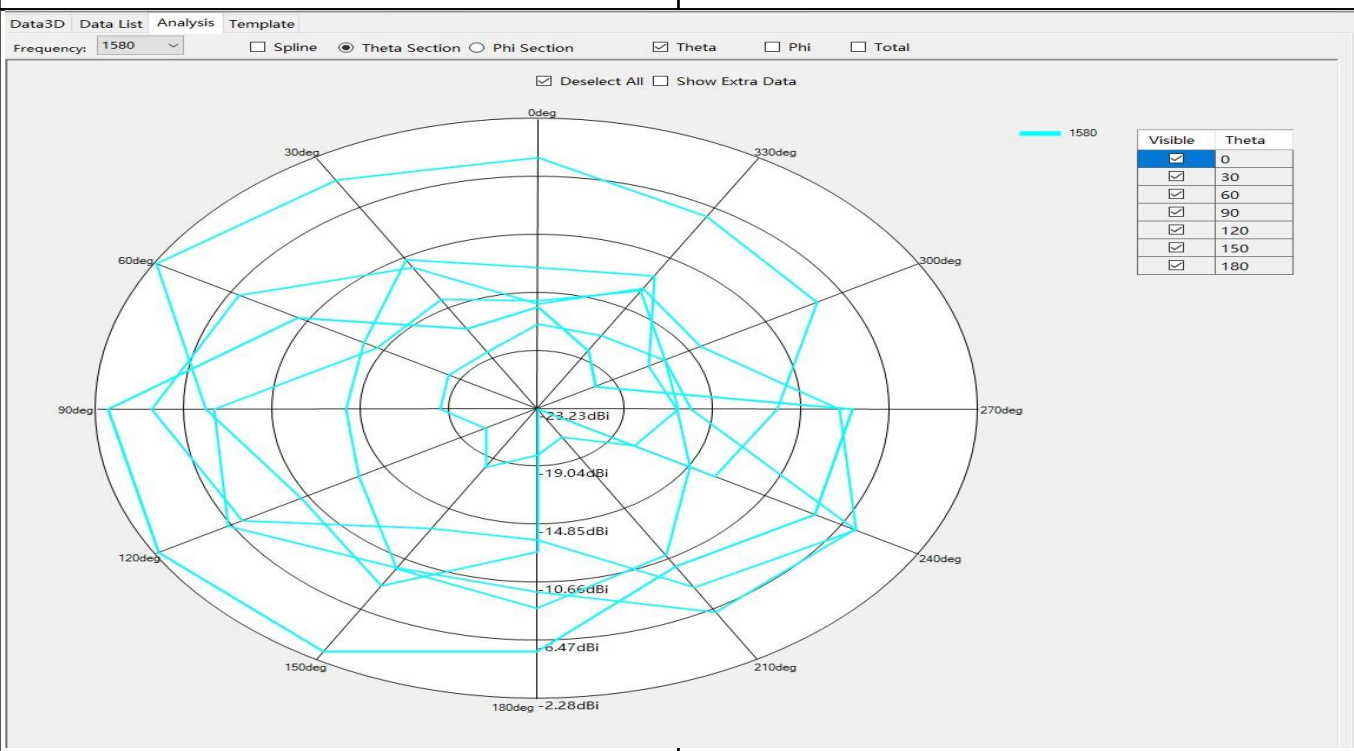
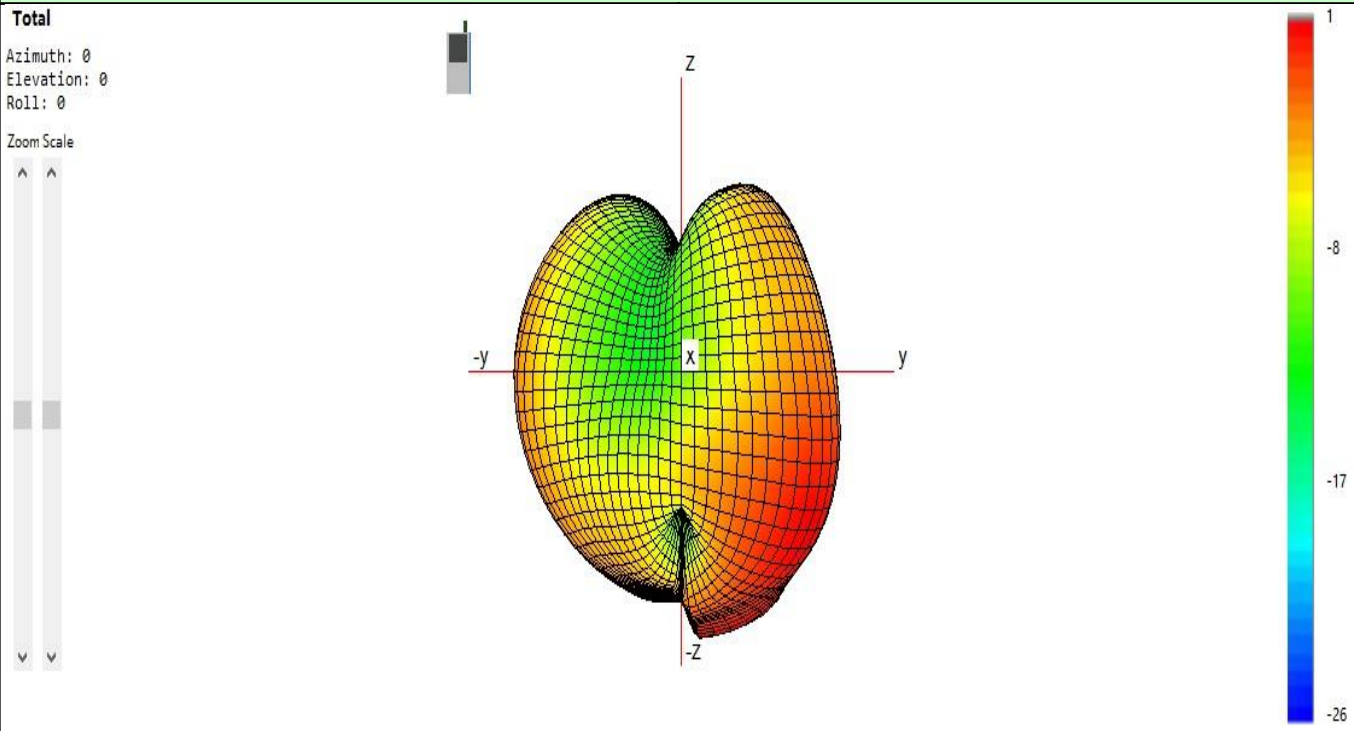


Radiation Pattern For GPS Antenna (1575mhz)





Radiation Pattern For GPS Antenna (1580mhz)



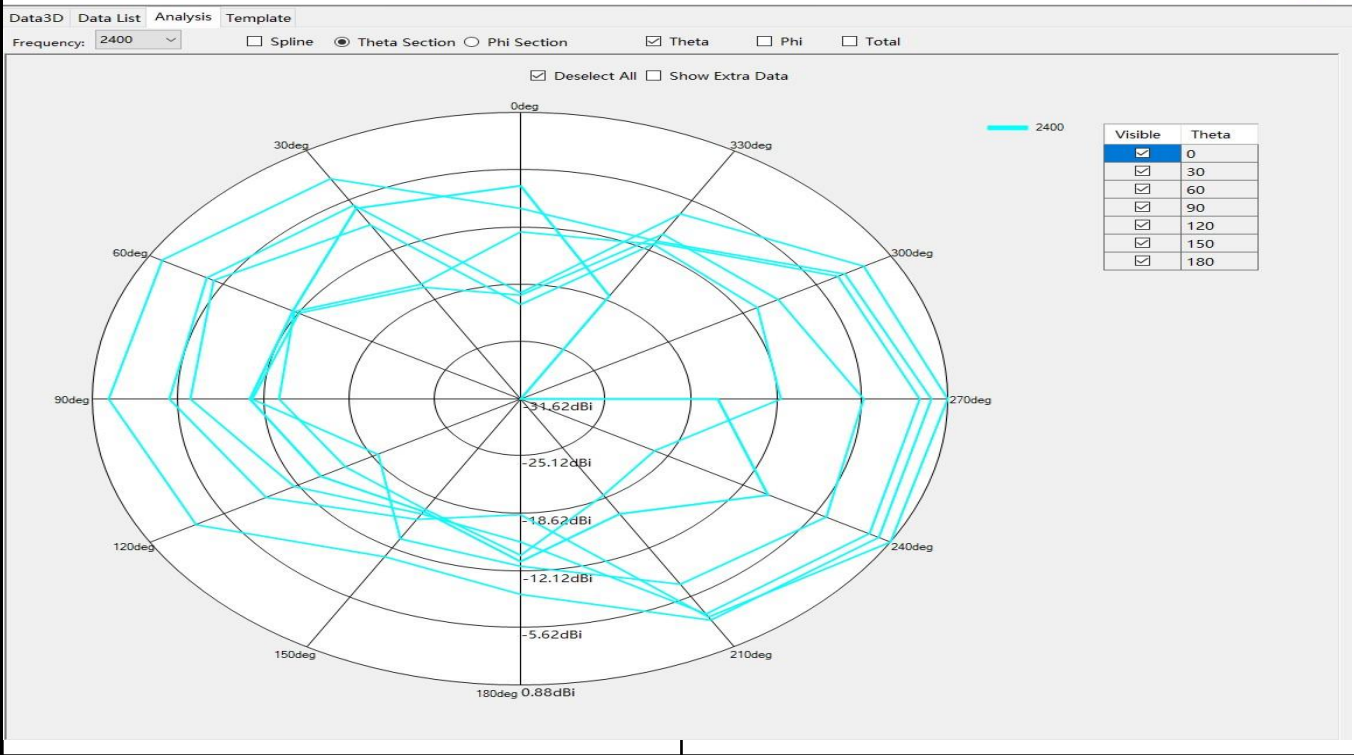
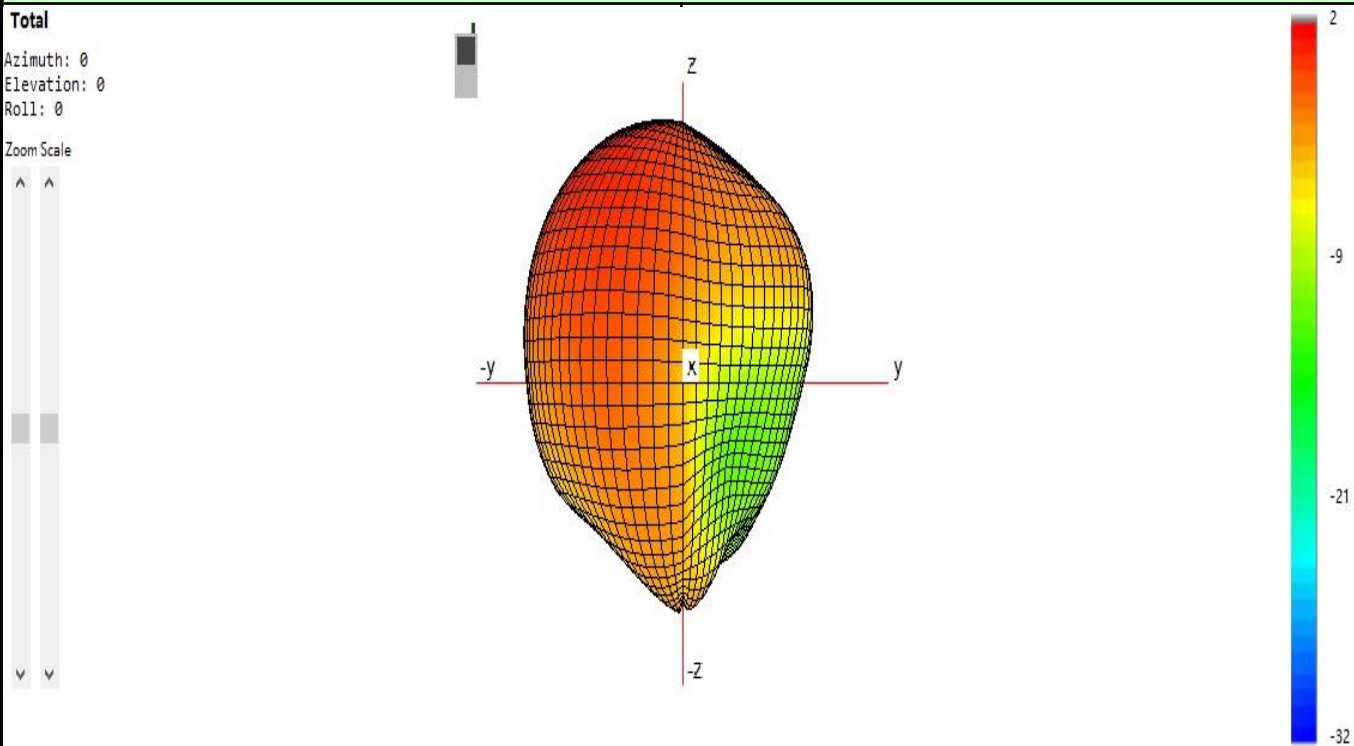


Passive Test For WiFi Antenna(2.4G)

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	38.53	-4.14	1.2
2410	38.04	-4.2	1.22
2420	36.64	-4.36	1.08
2430	34.93	-4.57	0.97
2440	33.22	-4.79	0.85
2450	30.53	-5.15	0.52
2460	28.44	-5.46	0.26
2470	26.92	-5.7	0
2480	24.89	-6.04	-0.38
2490	23.25	-6.34	-0.63
2500	21.84	-6.61	-0.88



Radiation Pattern For WiFi Antenna (2.4G)



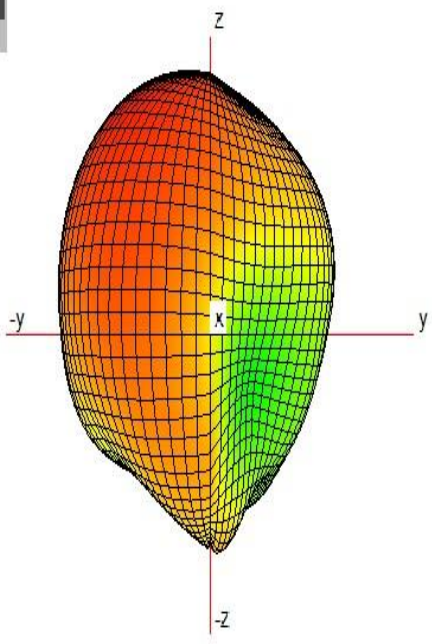


Radiation Pattern For WiFi Antenna (2.4G)

Total

Azimuth: 0
Elevation: 0
Roll: 0

Zoom Scale

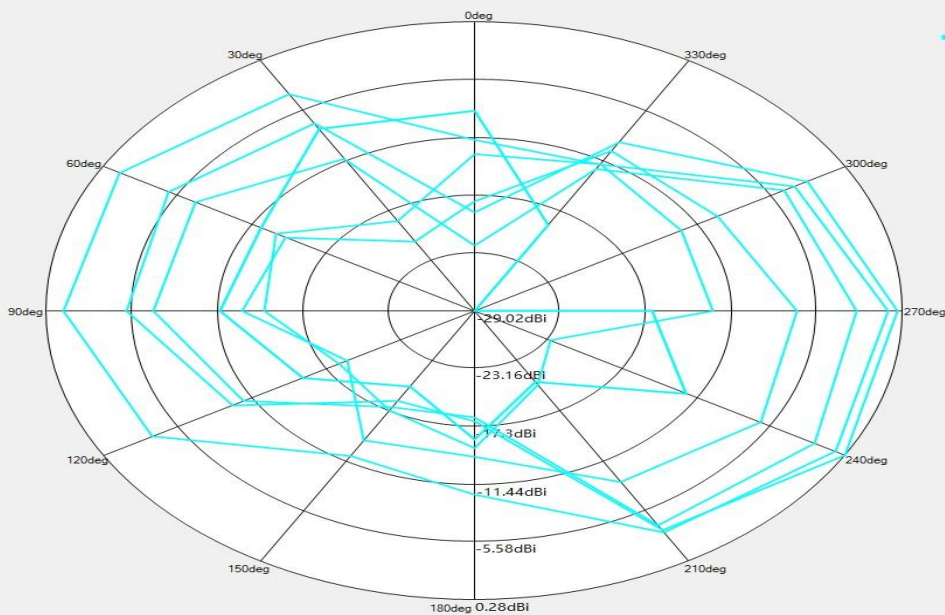


Data3D Data List Analysis Template

Frequency: 2450

☐ Spline ☒ Theta Section ☐ Phi Section ☒ Theta ☐ Phi ☐ Total

☒ Deselect All ☐ Show Extra Data



Visible	Theta
☒	0
☒	30
☒	60
☒	90
☒	120
☒	150
☒	180

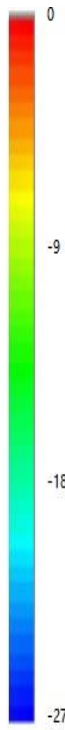
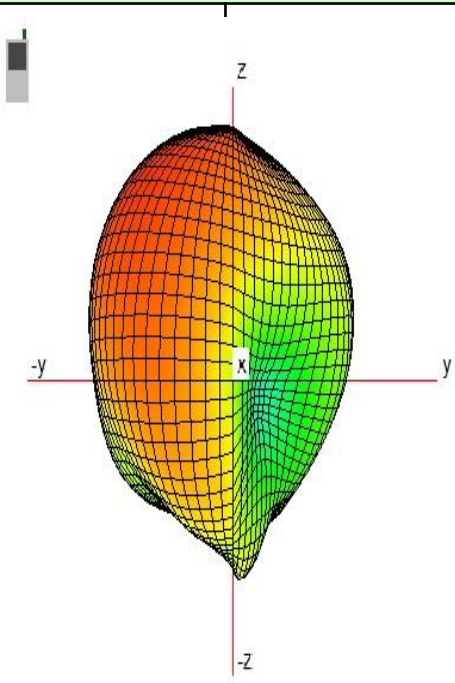


Radiation Pattern For WiFi Antenna (2.4G)

Total

Azimuth: 0
Elevation: 0
Roll: 0

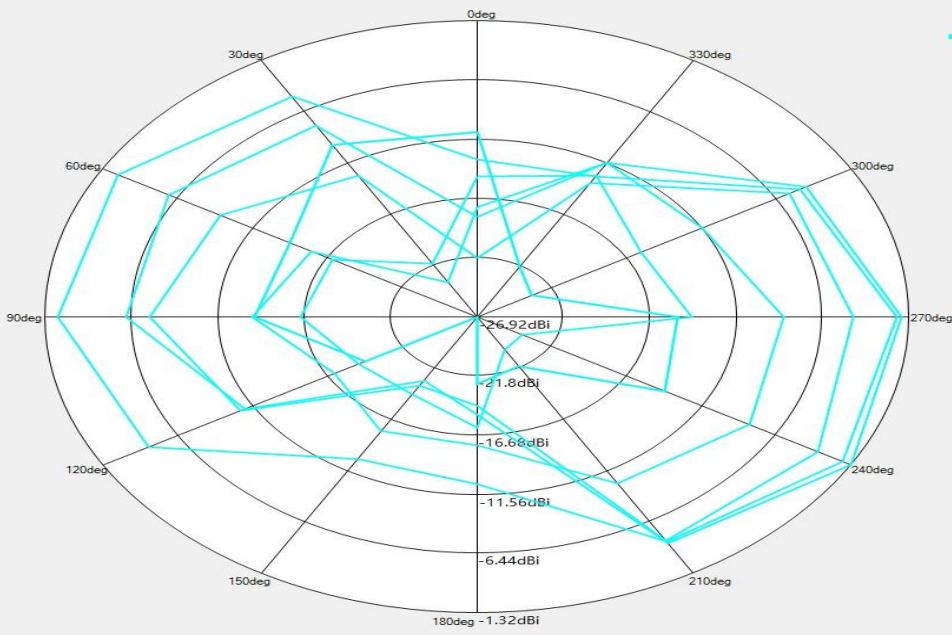
Zoom Scale



Data3D Data List Analysis Template

Frequency: 2500 ☐ Spline ☒ Theta Section ☐ Phi Section ☒ Theta ☐ Phi ☐ Total

☒ Deselect All ☐ Show Extra Data



Visible	Theta
☒	0
☒	30
☒	60
☒	90
☒	120
☒	150
☒	180

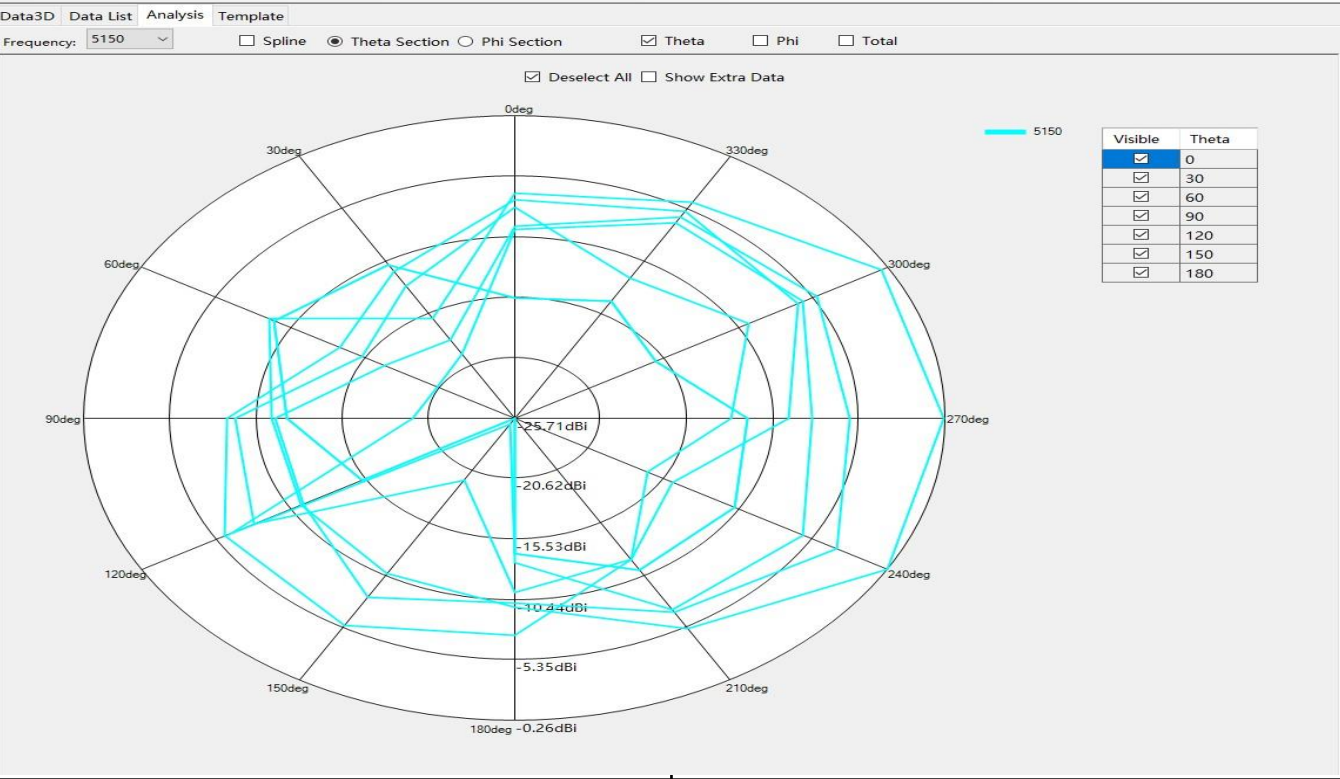
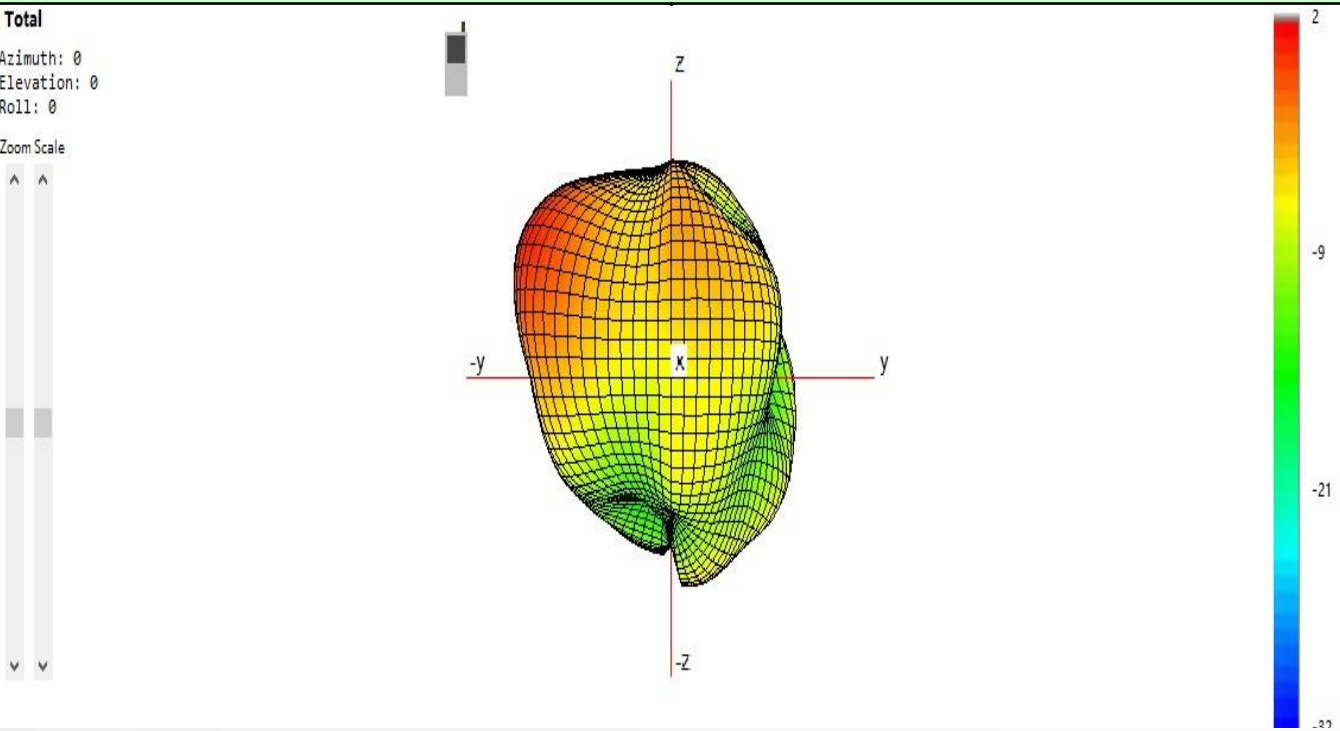


Passive Test For WiFi Antenna(5.8G)

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	24.66	-6.08	1.43
5200	29.6	-5.29	2.38
5250	31.29	-5.05	2.38
5300	31.98	-4.95	1.97
5350	34.41	-4.63	1.8
5400	37.65	-4.24	1.65
5450	38.85	-4.11	1.4
5500	34.25	-4.65	0.76
5550	35.41	-4.51	0.82
5600	37.71	-4.24	1.13
5650	38.27	-4.17	1.25
5700	37.22	-4.29	1.29
5750	35.45	-4.5	1.08
5800	36.78	-4.34	1.21
5850	33.6	-4.74	1.41

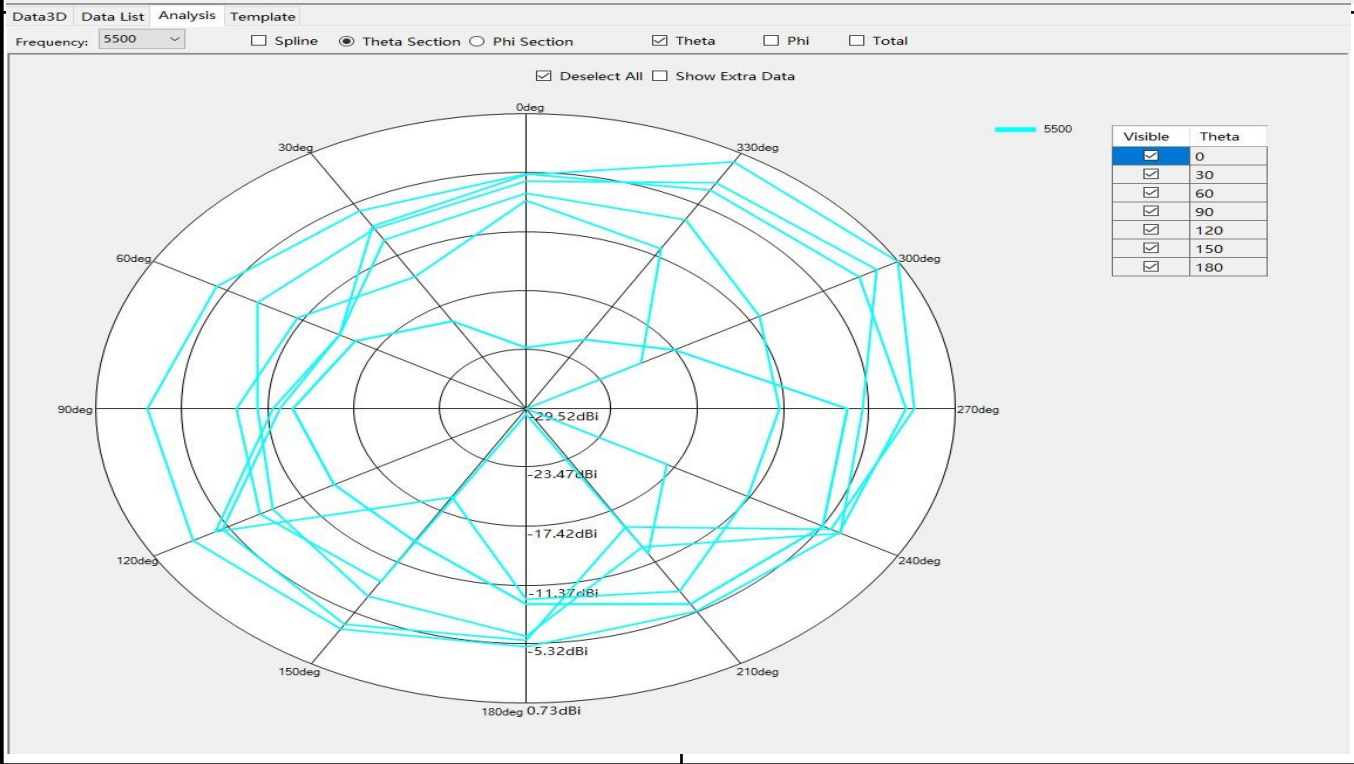
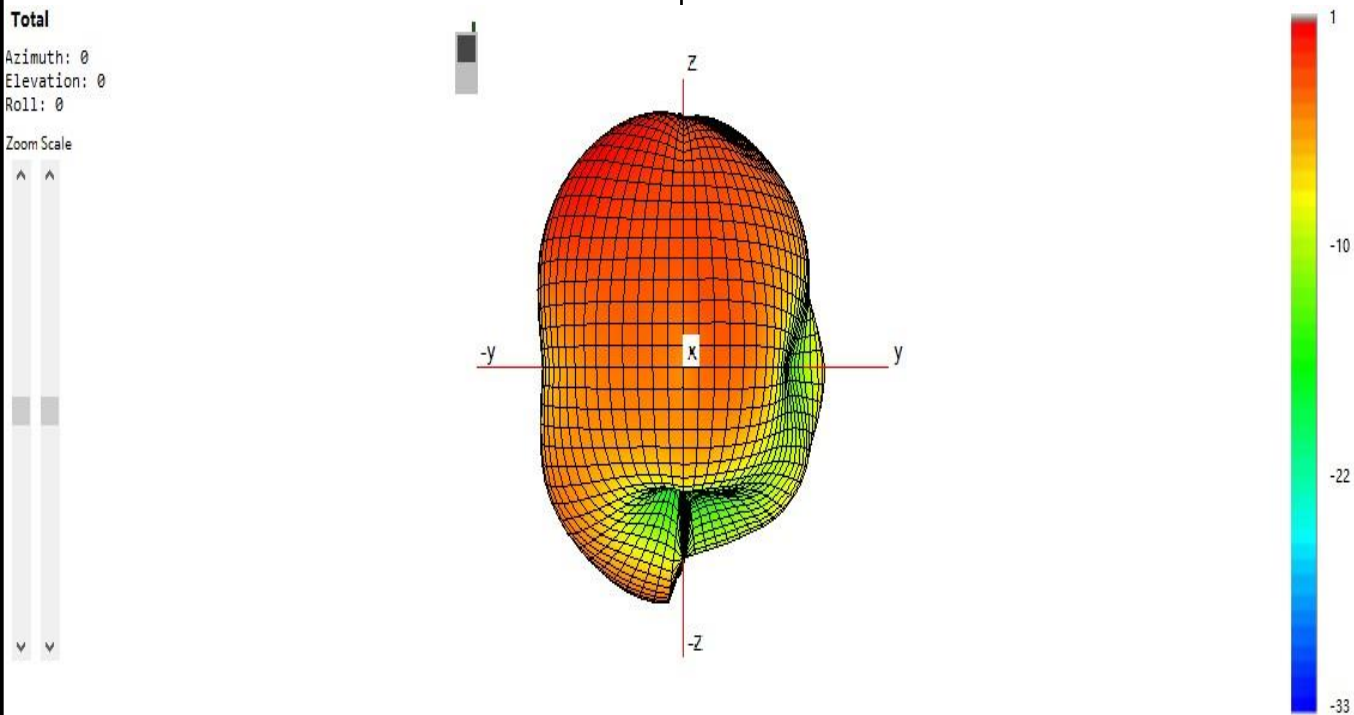


Radiation Pattern For WiFi Antenna (5.8G)





Radiation Pattern For WiFi Antenna (5.8G)



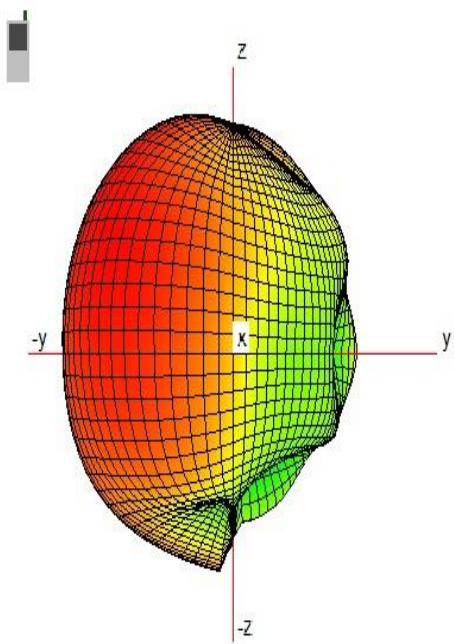


Radiation Pattern For WiFi Antenna (5.8G)

Total

Azimuth: 0
Elevation: 0
Roll: 0

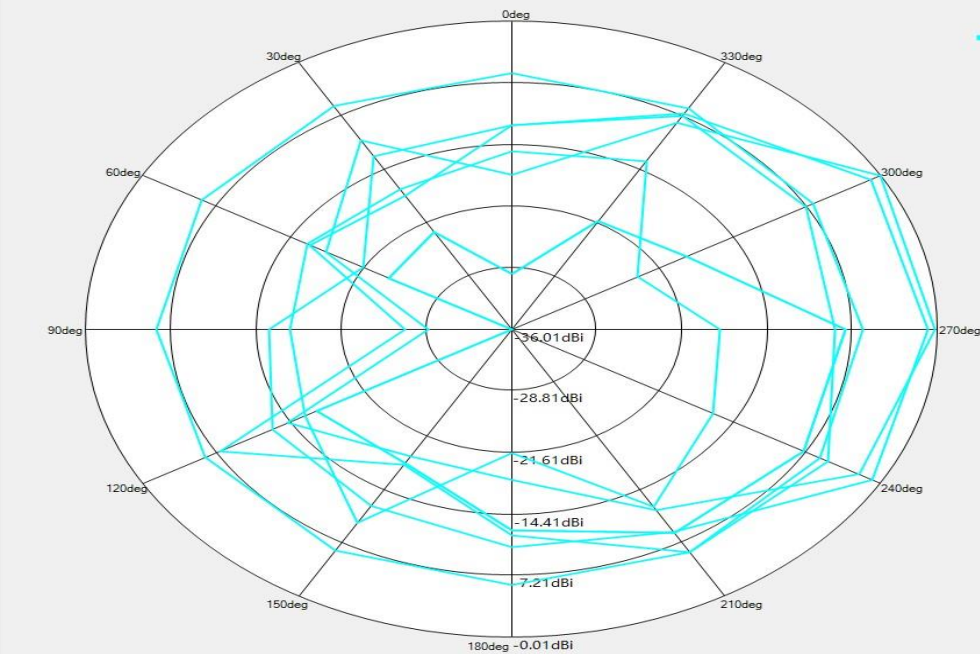
Zoom Scale



Data3D Data List Analysis Template

Frequency: 5850 ☐ Spline ☒ Theta Section ☐ Phi Section ☒ Theta ☐ Phi ☐ Total

☒ Deselect All ☐ Show Extra Data

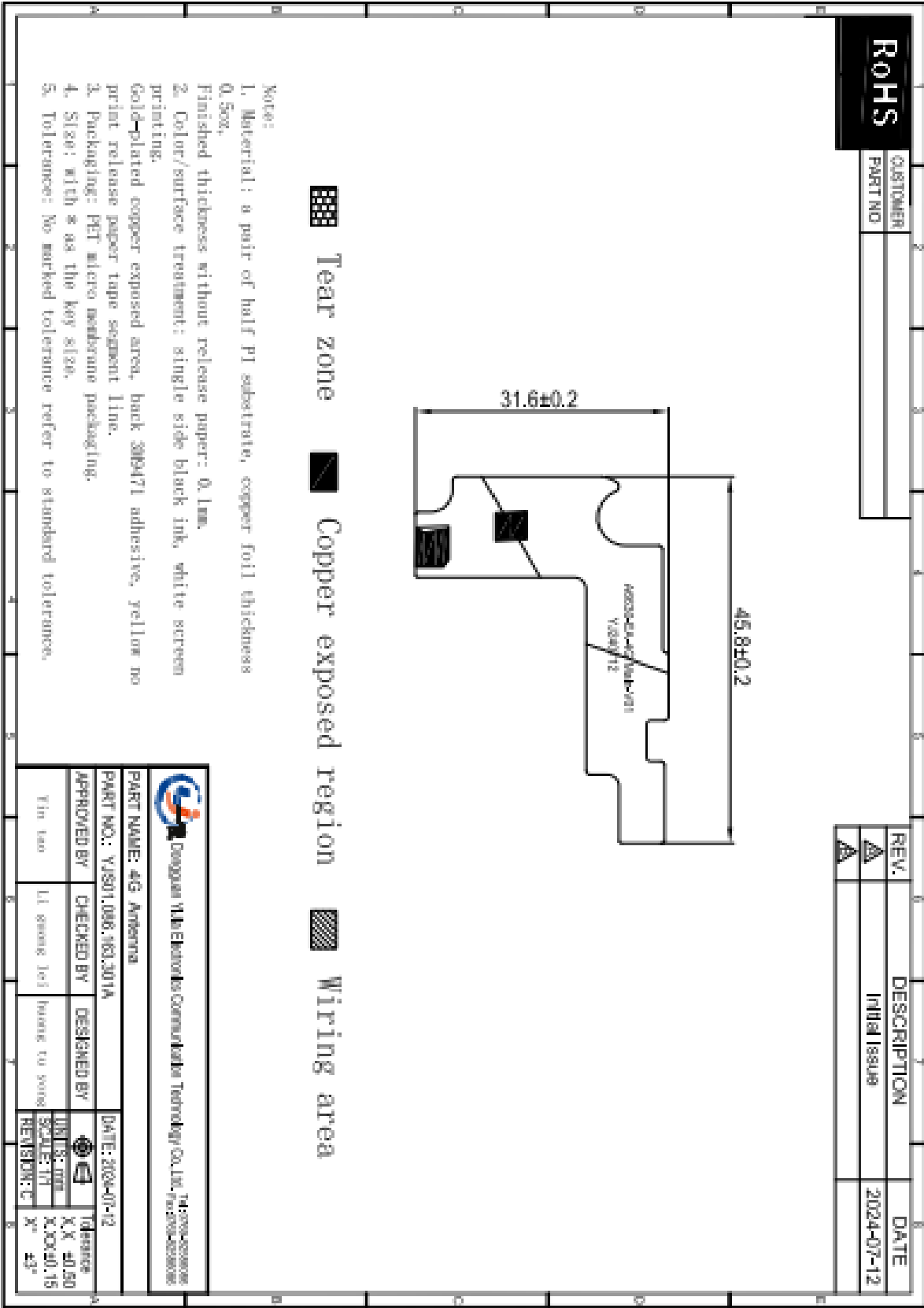


5850

Visible	Theta
☒	0
☒	30
☒	60
☒	90
☒	120
☒	150
☒	180



5.1 LTE Antenna size





5.2 GPS/WIFI/BT Antenna size

