



东莞市一佳电子通讯科技有限公司

Antenna Test Report

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Tester : Li Guang Lei

Approval : Yin Tao

Date : 2024 / 7 / 22

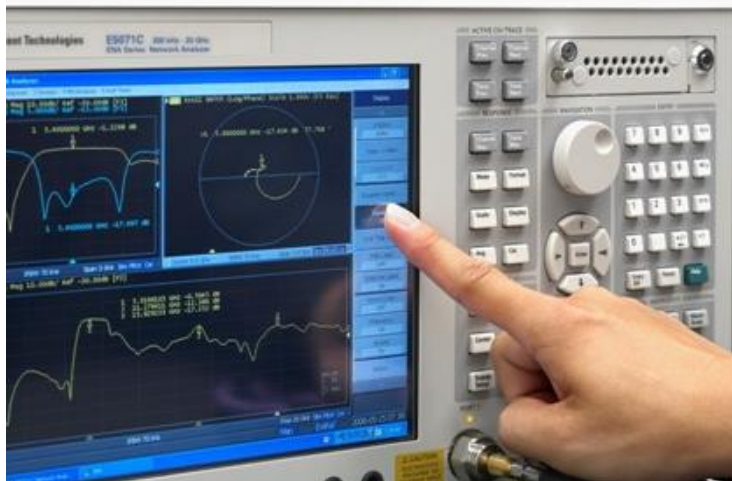
真诚 务实 开拓 创新



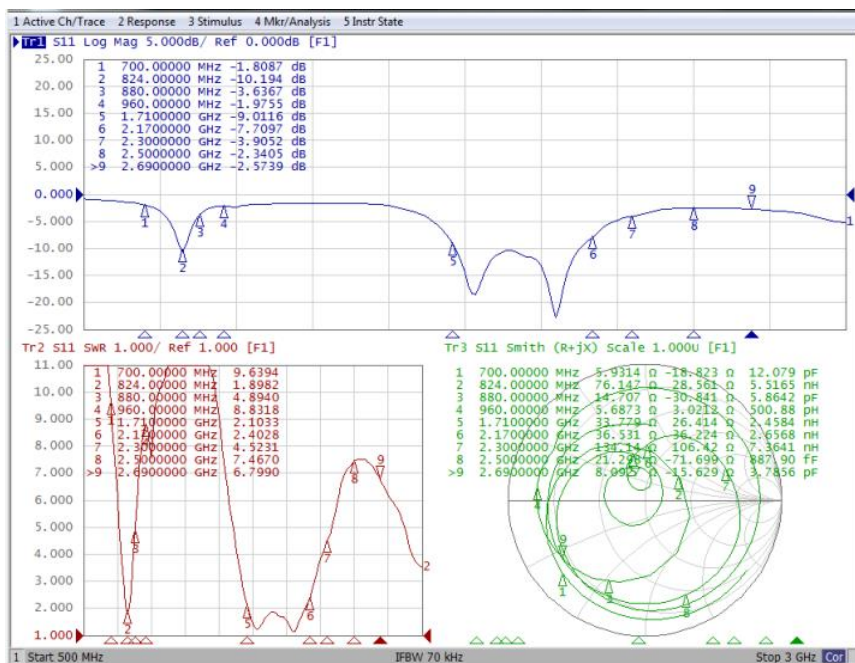
Project name	A6630-NA
Name of antenna	FPC
Antenna form	LTE PIFA
	GPS/WIFI/BT PIFA
Radiate	Omni-directional
Polarization	Line polarization



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

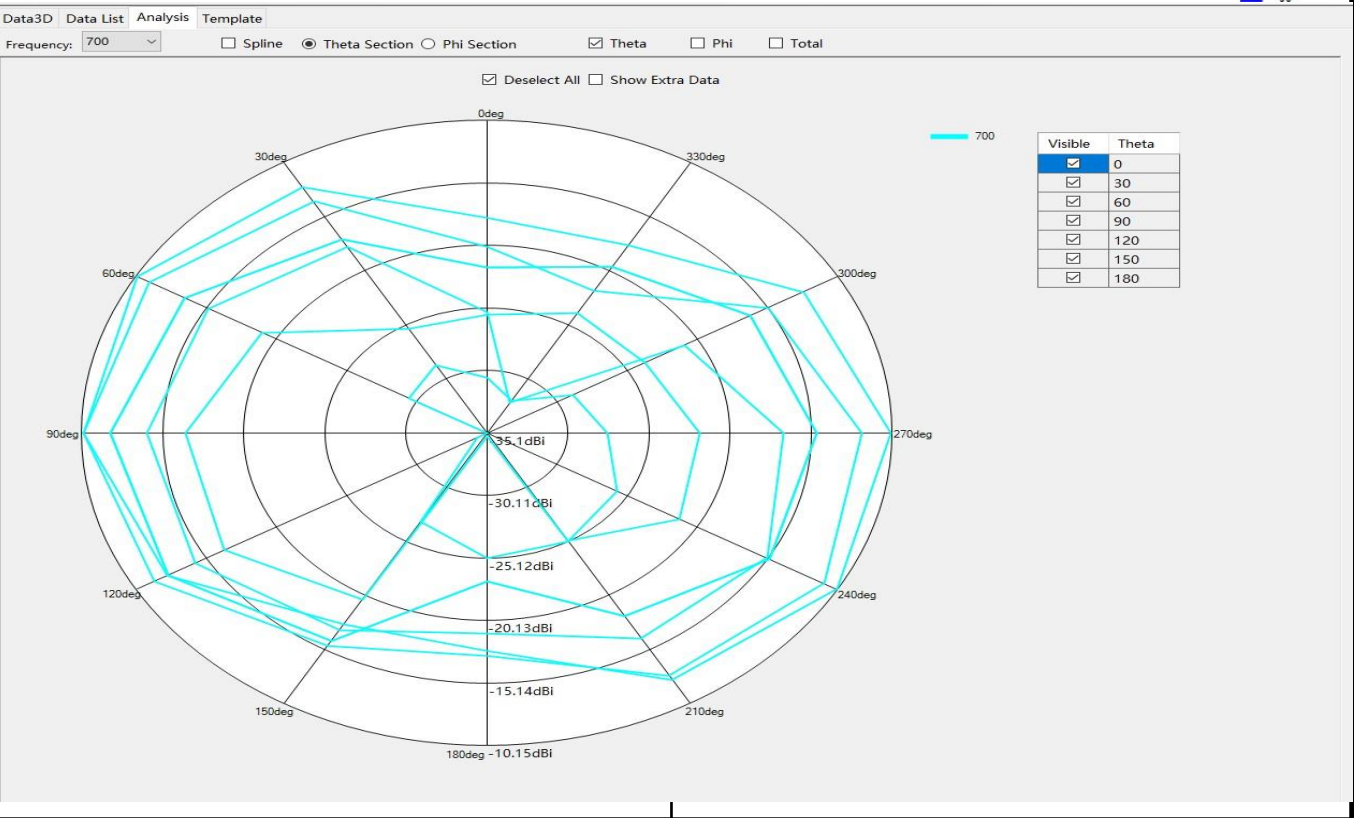
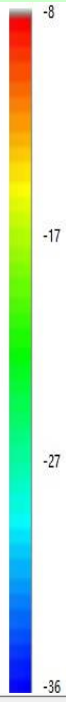
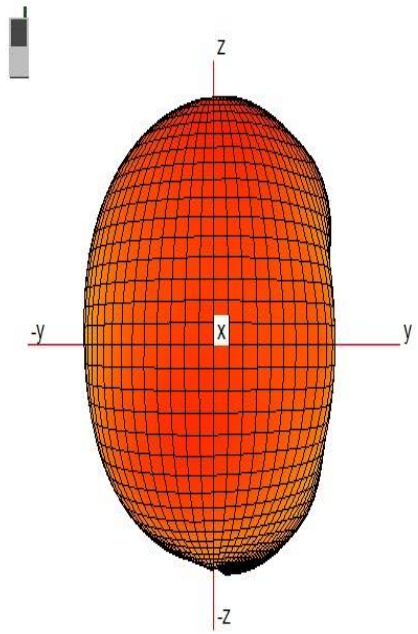


Radiation Pattern For LTE Antenna (700mhz)

Total

Azimuth: 0
Elevation: 0
Roll: 0

Zoom Scale



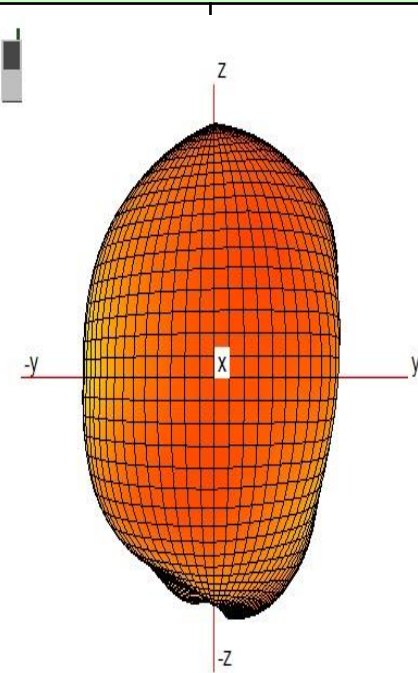


Radiation Pattern For LTE Antenna (800mhz)

Total

Azimuth: 0
Elevation: 0
Roll: 0

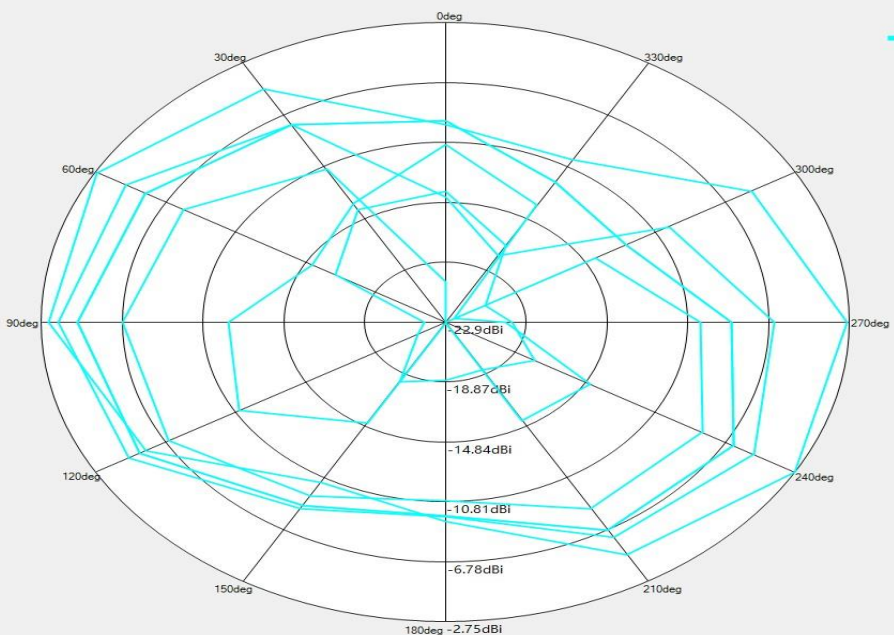
Zoom Scale



Data3D Data List Analysis Template

Frequency: 800 ☐ Spline ☒ Theta Section ☐ Phi Section ☒ Theta ☐ Phi ☐ Total

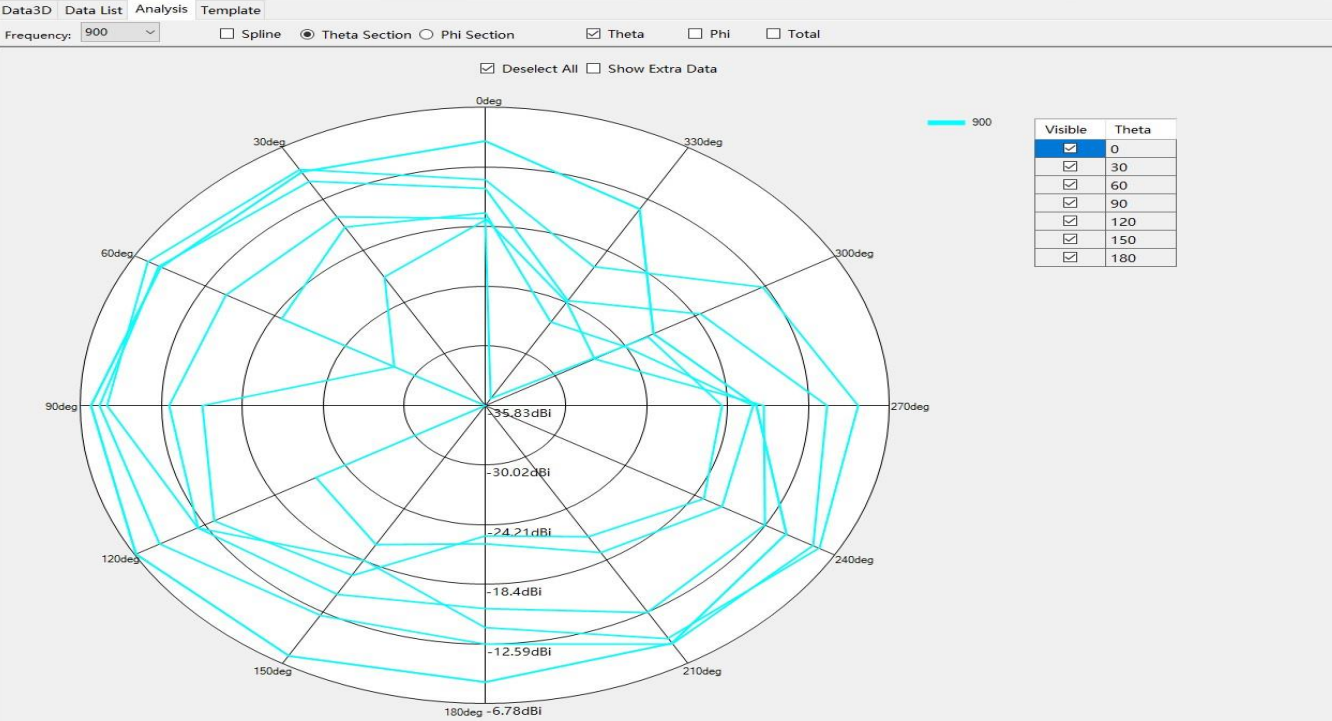
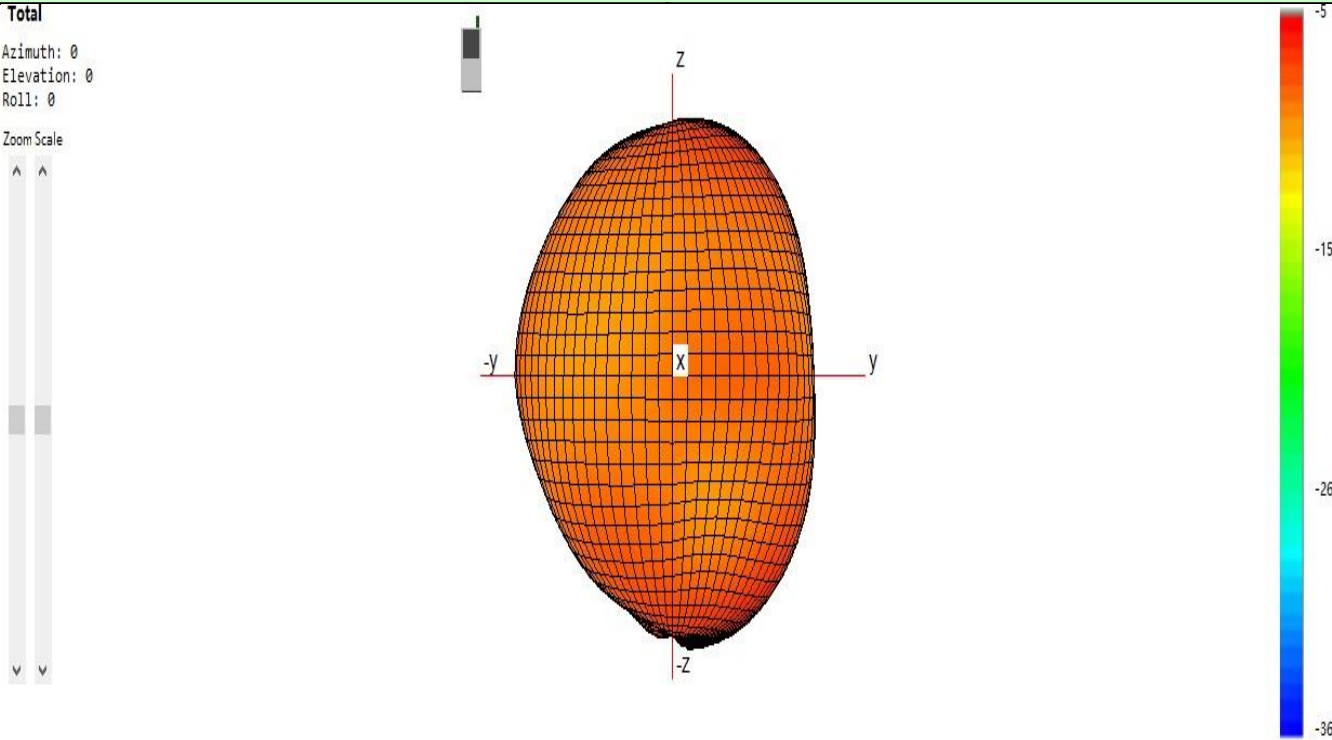
☒ Deselect All ☐ Show Extra Data



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

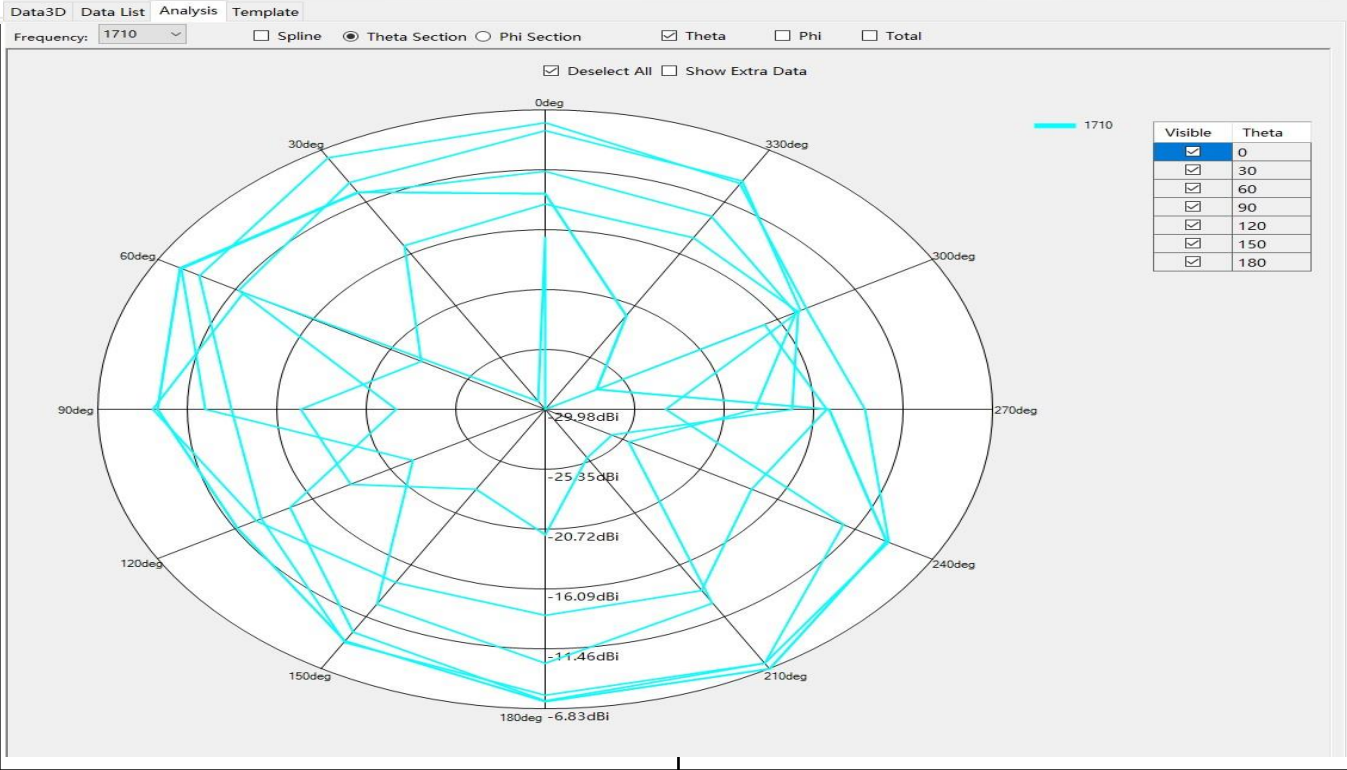
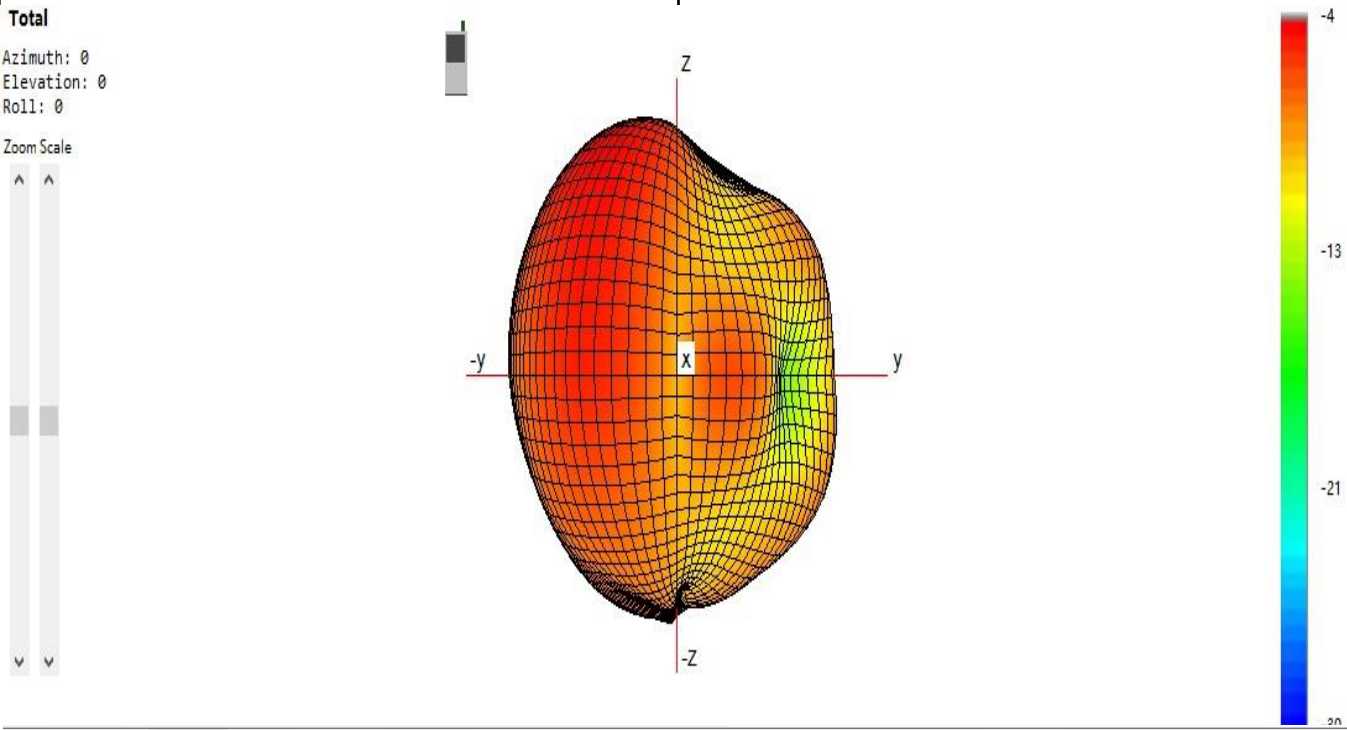


Radiation Pattern For LTE Antenna (900mhz)





Radiation Pattern For LTE Antenna (1710mhz)



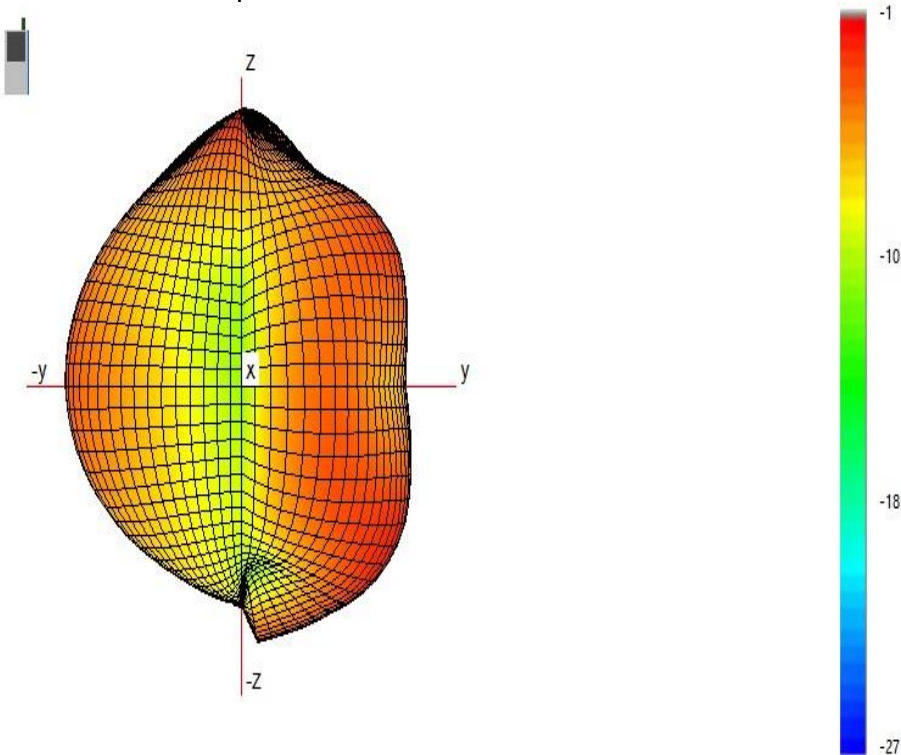


Radiation Pattern For LTE Antenna (1920mhz)

Total

Azimuth: 0
Elevation: 0
Roll: 0

Zoom Scale

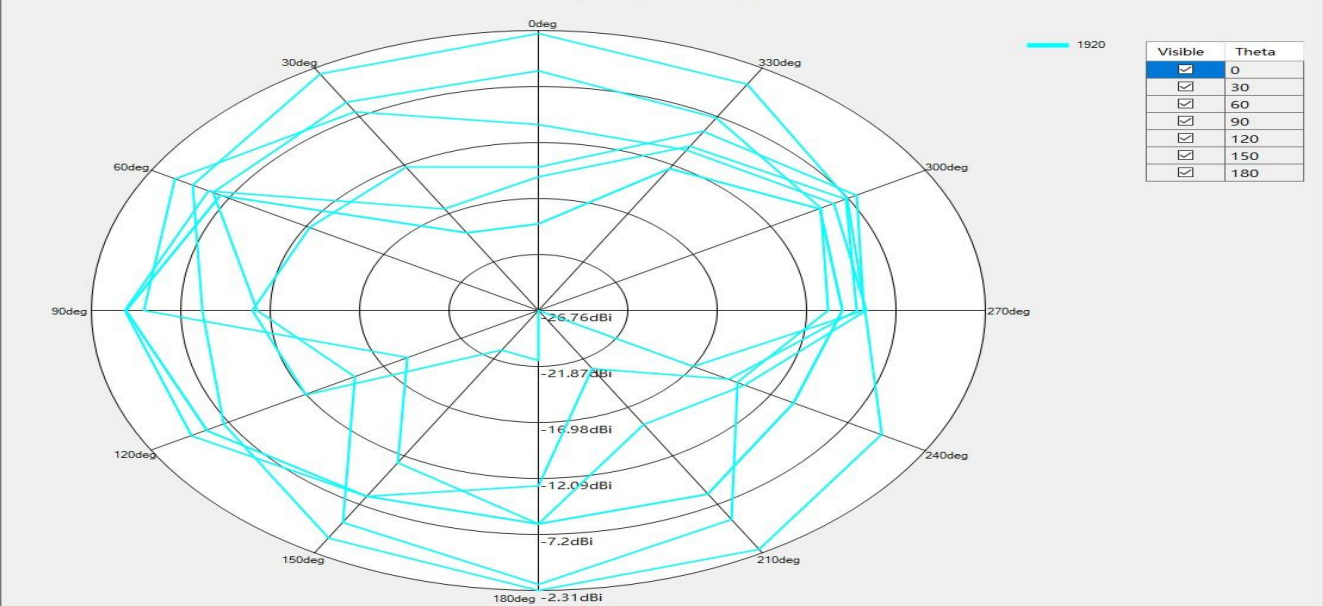


Data3D Data List Analysis Template

Frequency: 1920

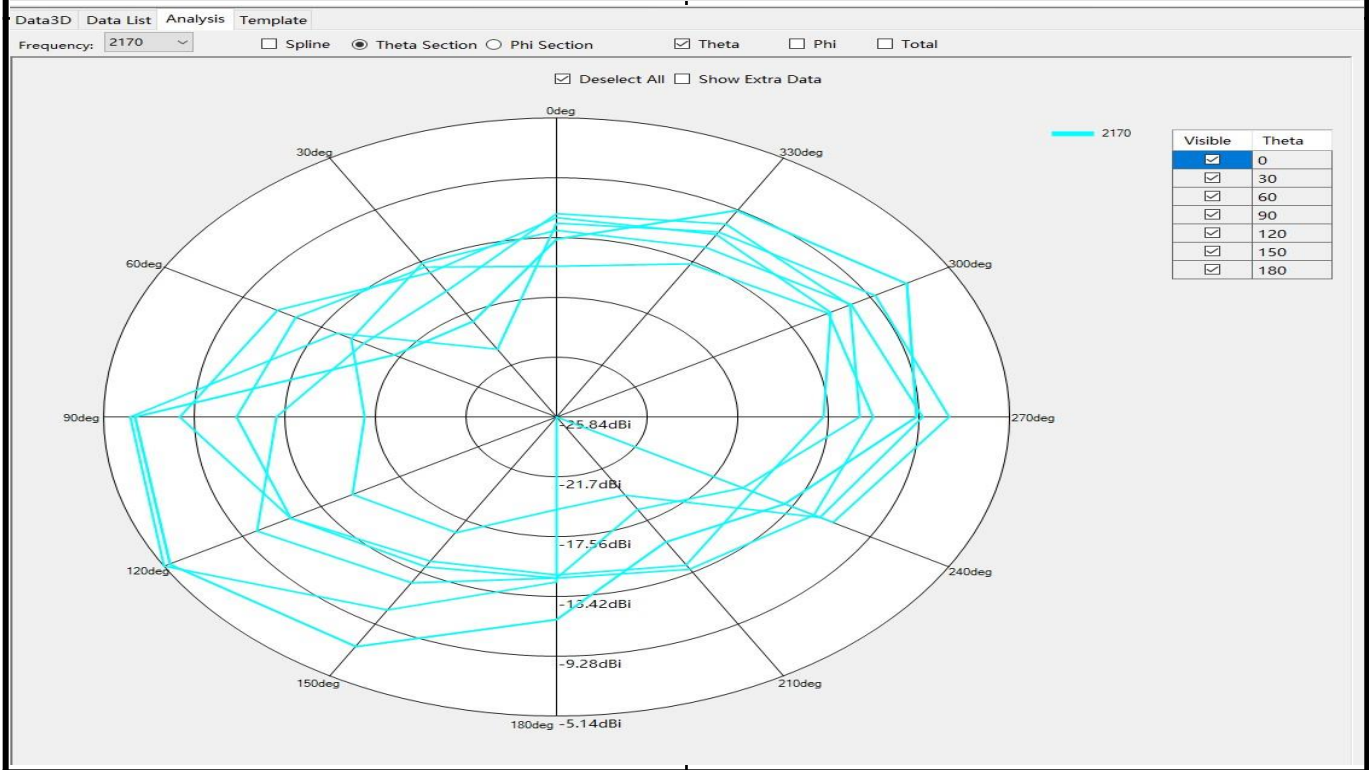
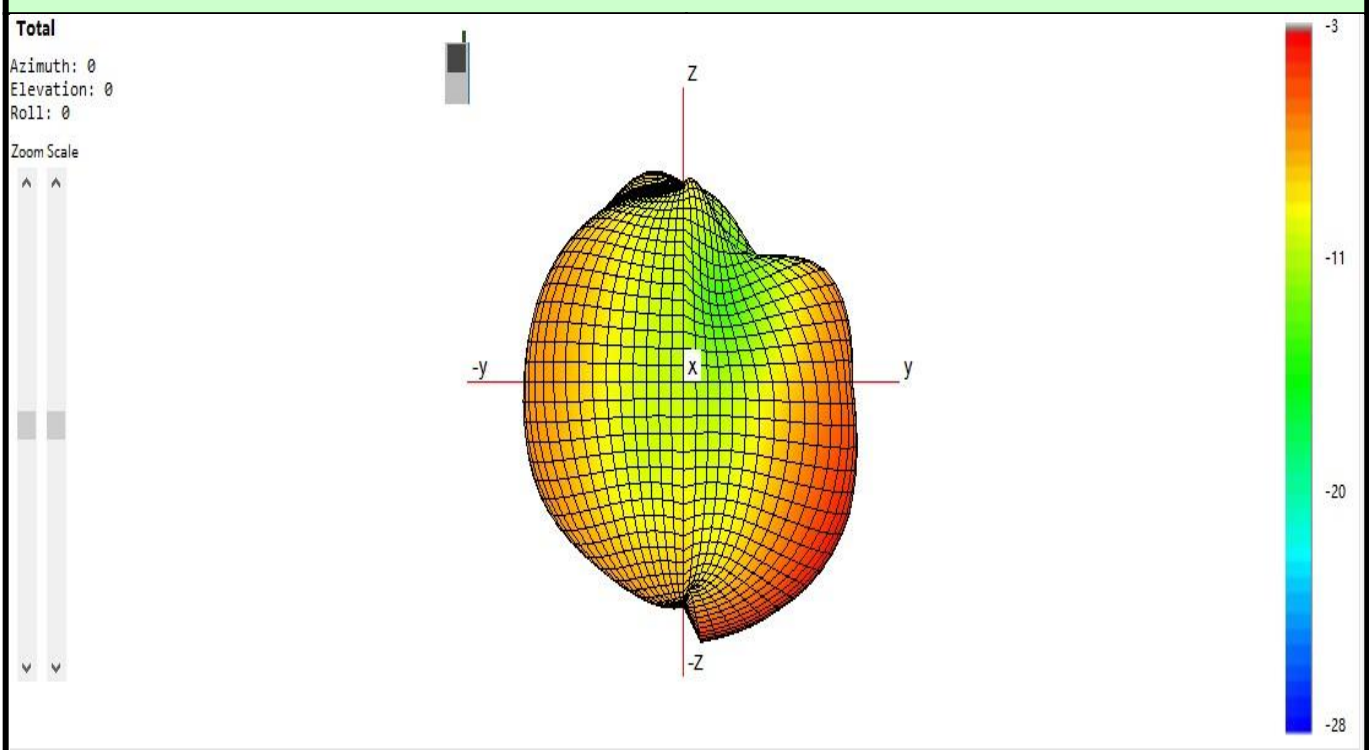
☐ Spline ☒ Theta Section ☐ Phi Section ☒ Theta ☐ Phi ☐ Total

☒ Deselect All ☐ Show Extra Data



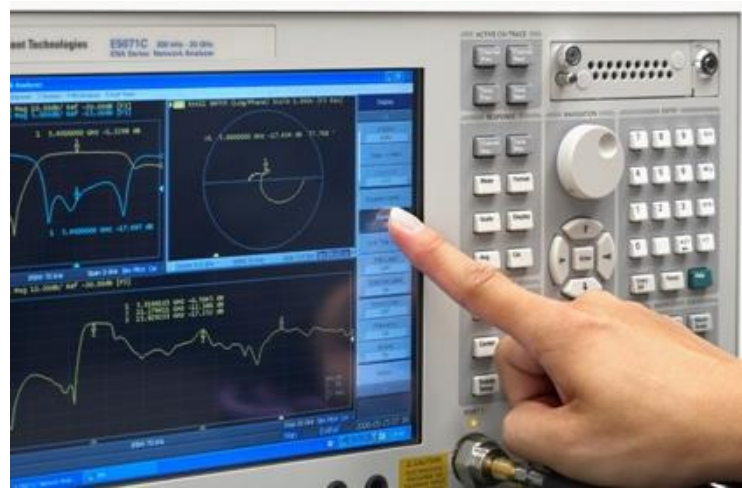


Radiation Pattern For LTE Antenna (2170mhz)

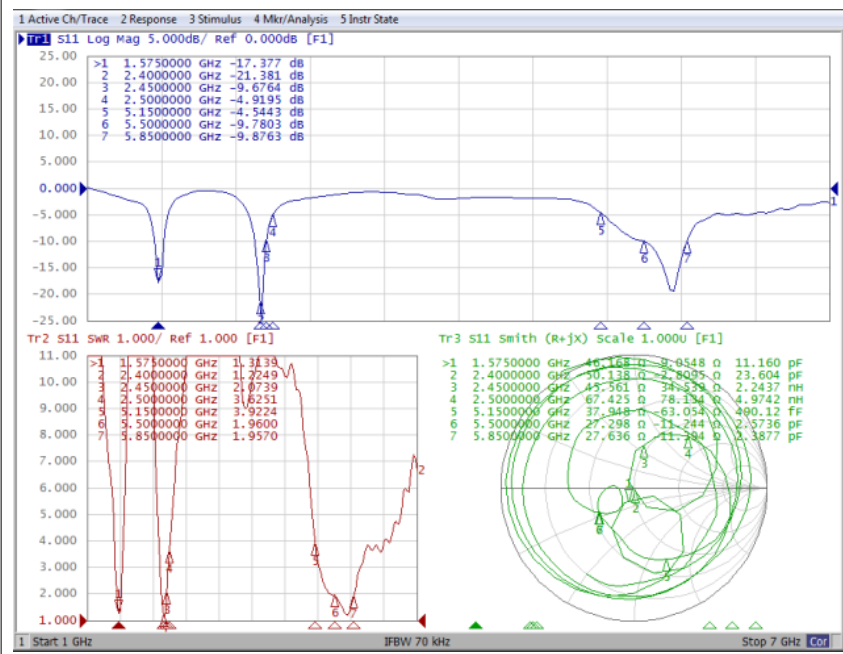




Agilent E5071B



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

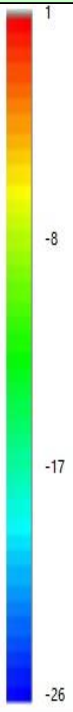
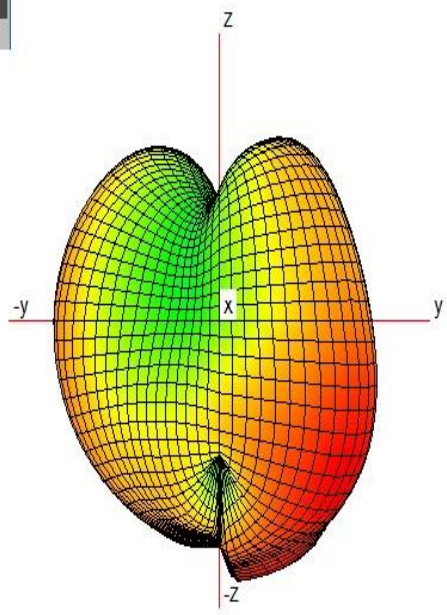


Radiation Pattern For GPS Antenna (1570mhz)

Total

Azimuth: 0
Elevation: 0
Roll: 0

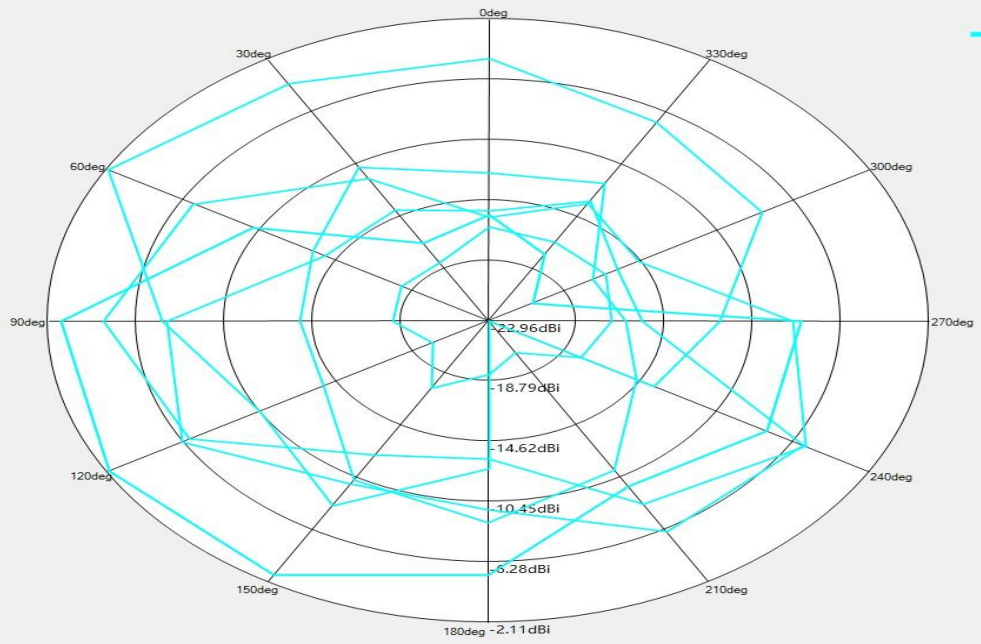
Zoom Scale



Data3D Data List Analysis Template

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

☒ Deselect All ☐ Show Extra Data



1570

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

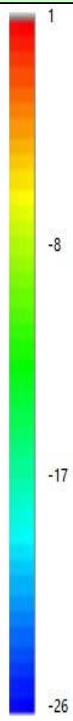
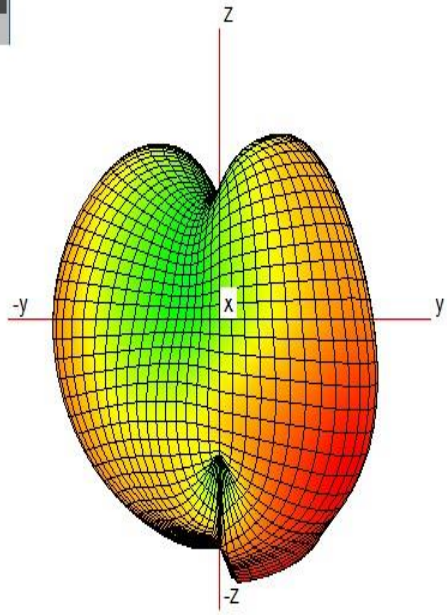


Radiation Pattern For GPS Antenna (1575mhz)

Total

Azimuth: 0
Elevation: 0
Roll: 0

Zoom Scale

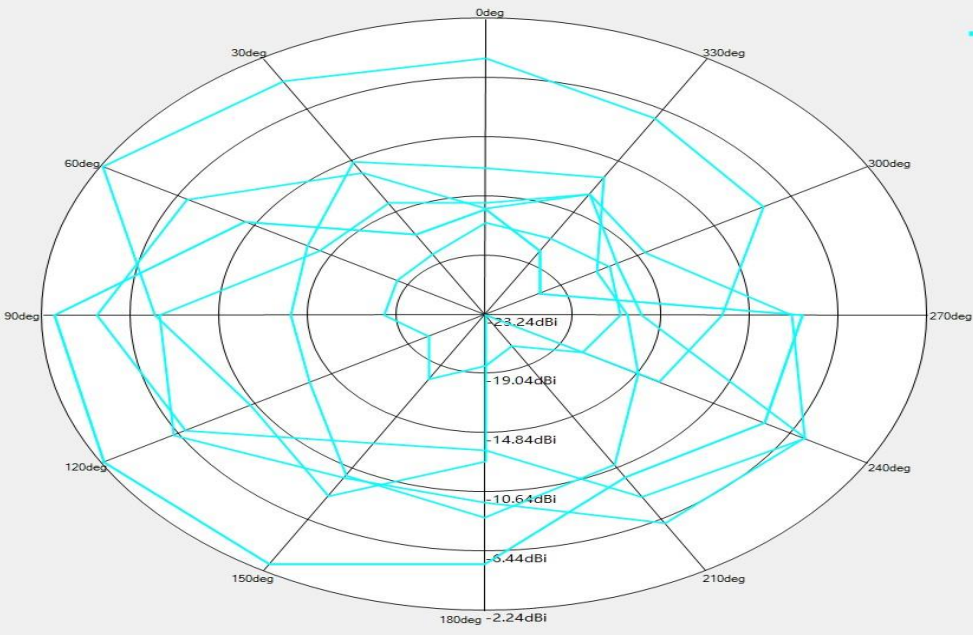


Data3D Data List Analysis Template

Frequency: 1575

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

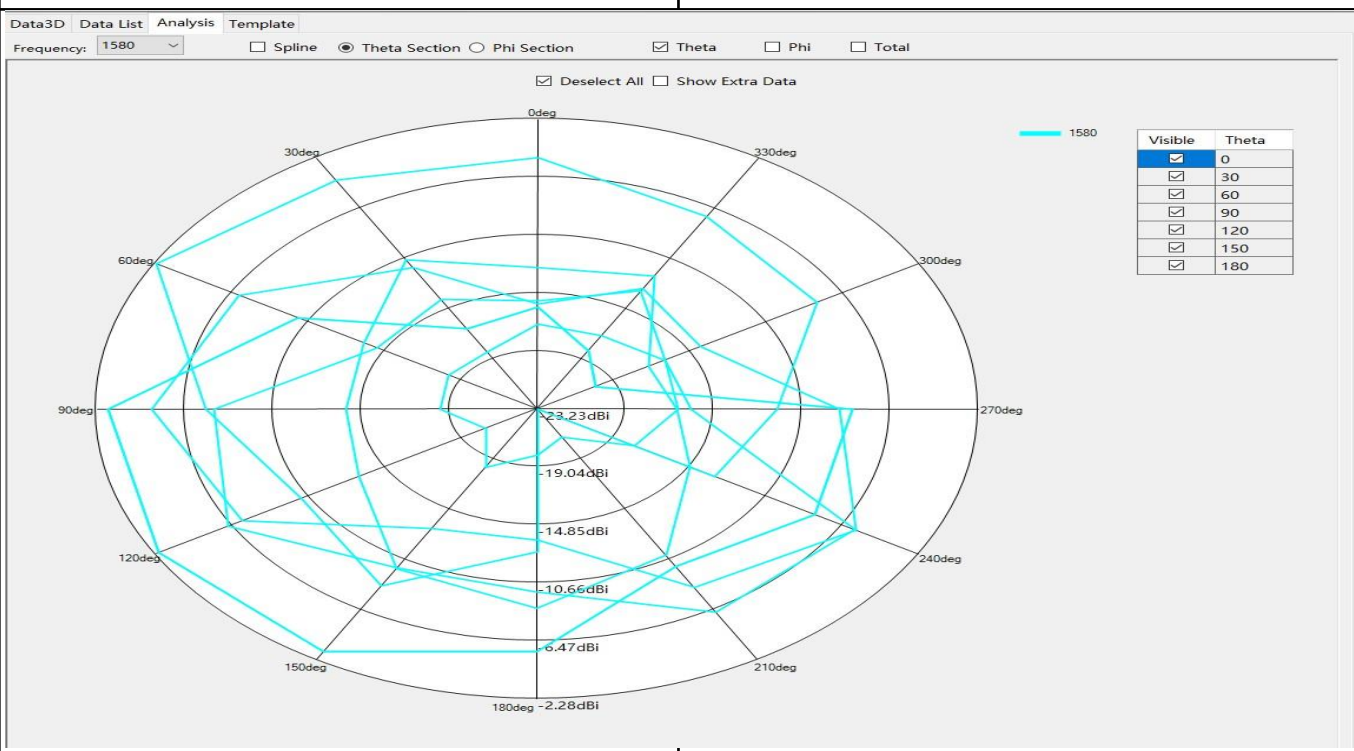
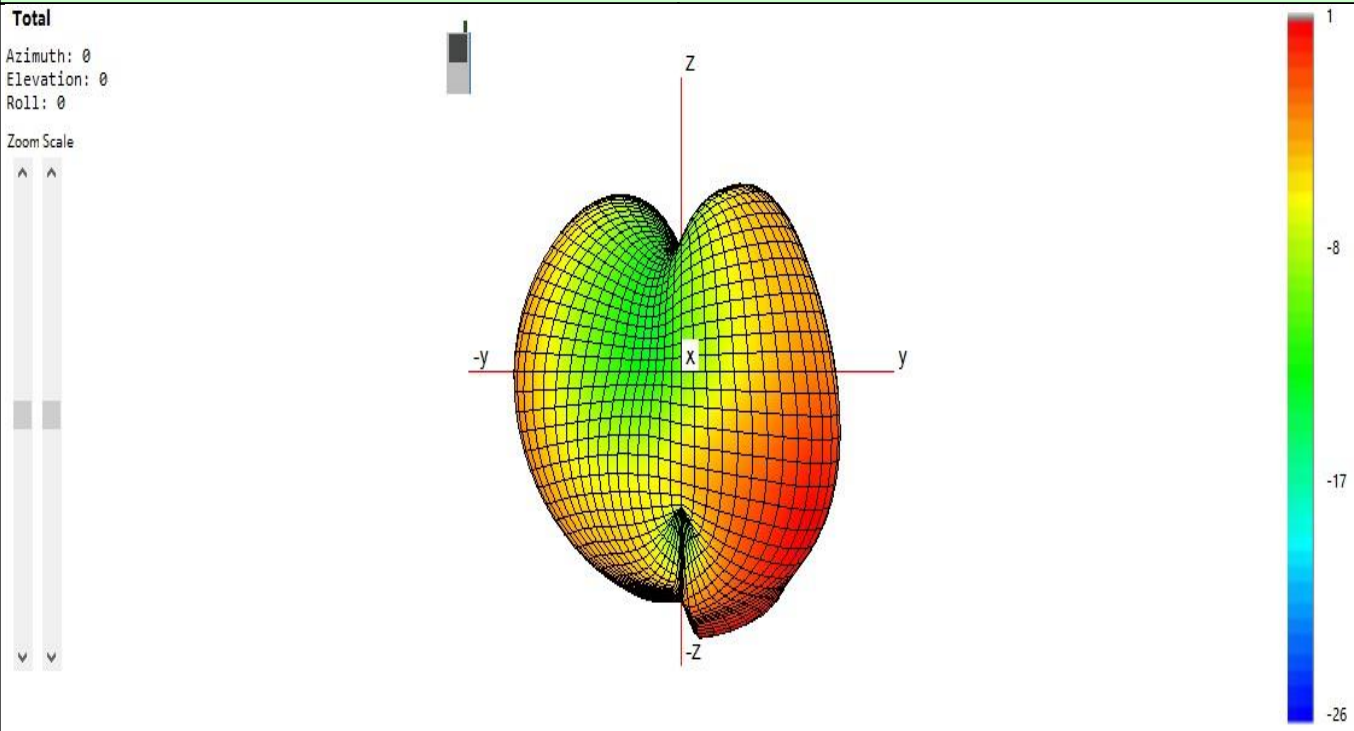
☒ Deselect All ☐ Show Extra Data



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



Radiation Pattern For GPS Antenna (1580mhz)



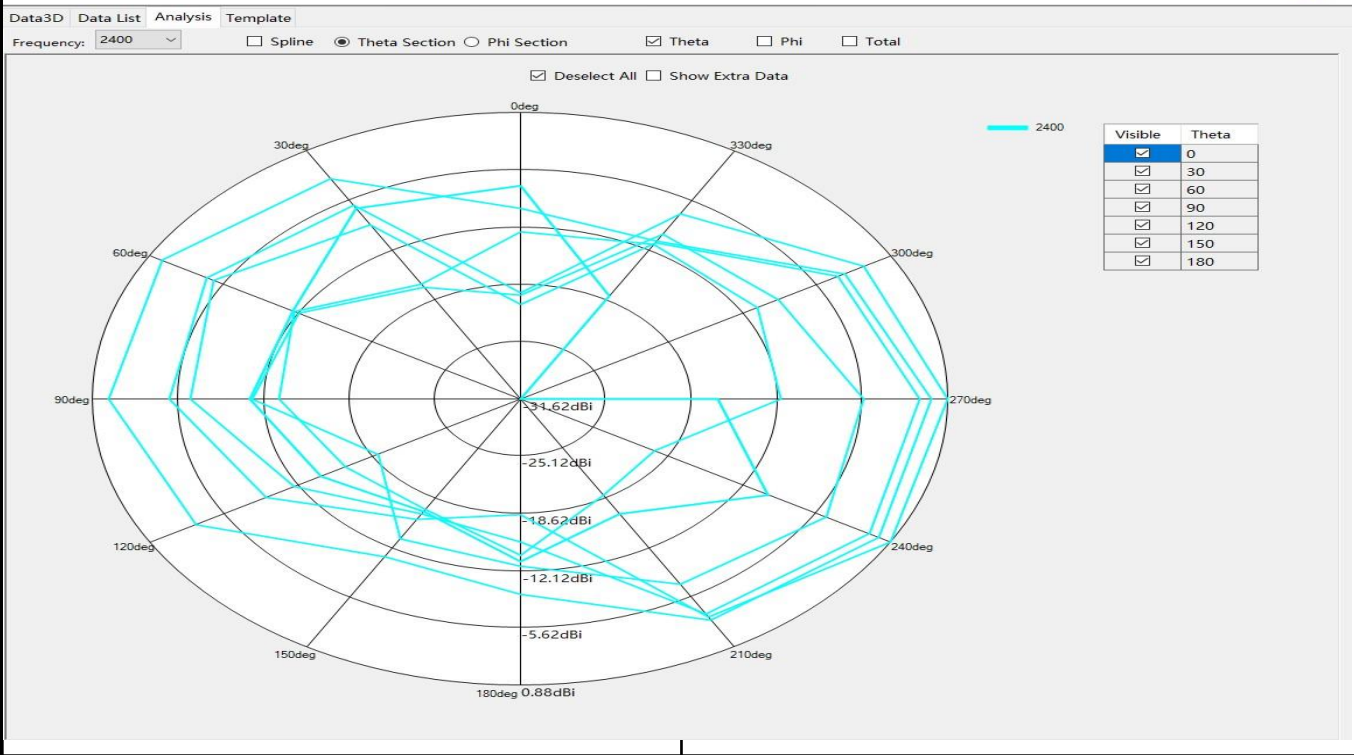
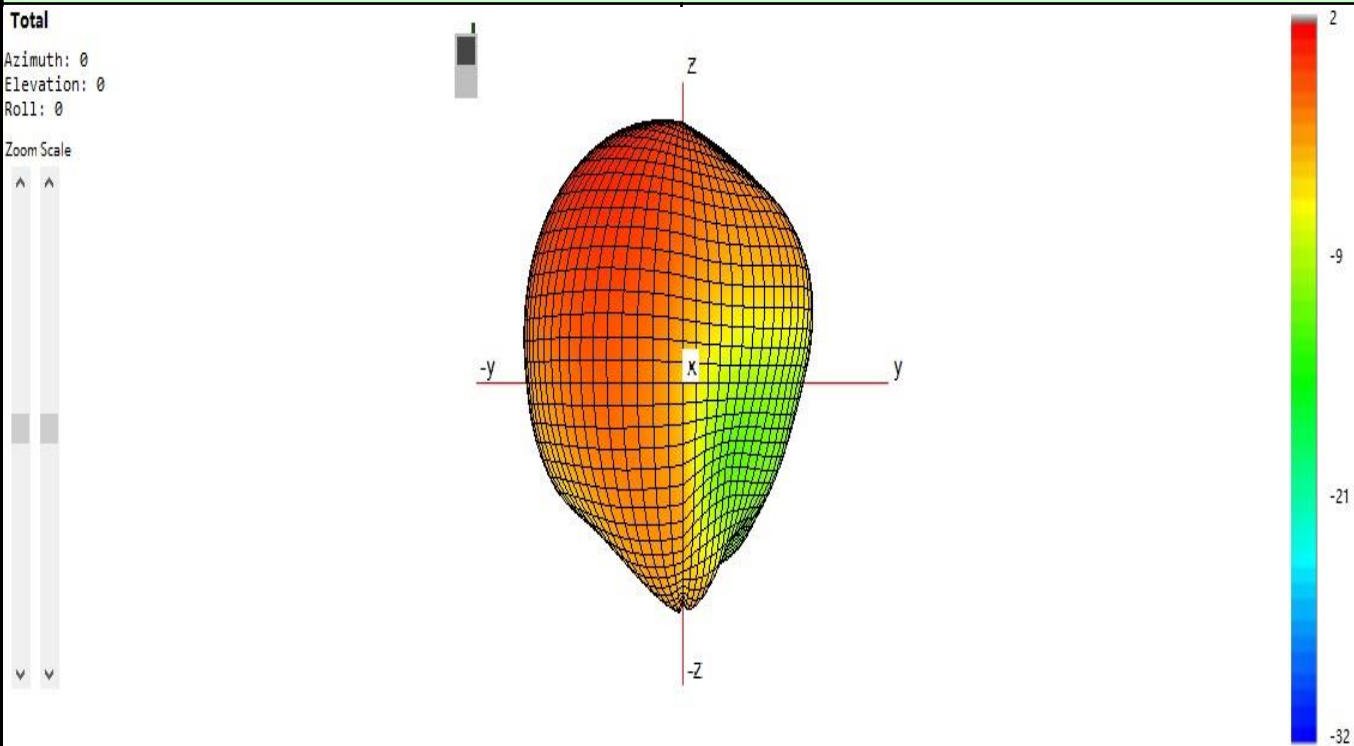


Passive Test For WiFi Antenna(2.4G)

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)



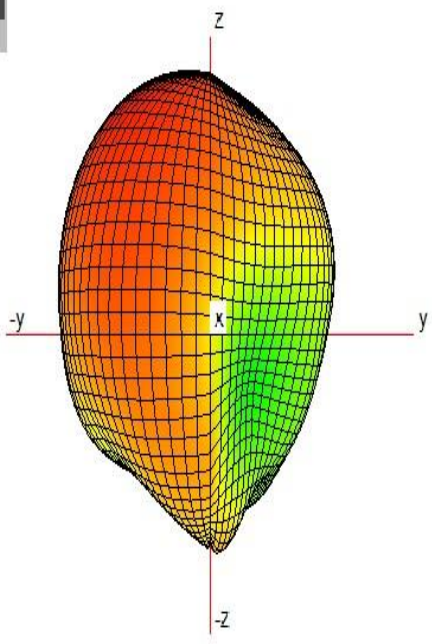


Radiation Pattern For WiFi Antenna (2.4G)

Total

Azimuth: 0
Elevation: 0
Roll: 0

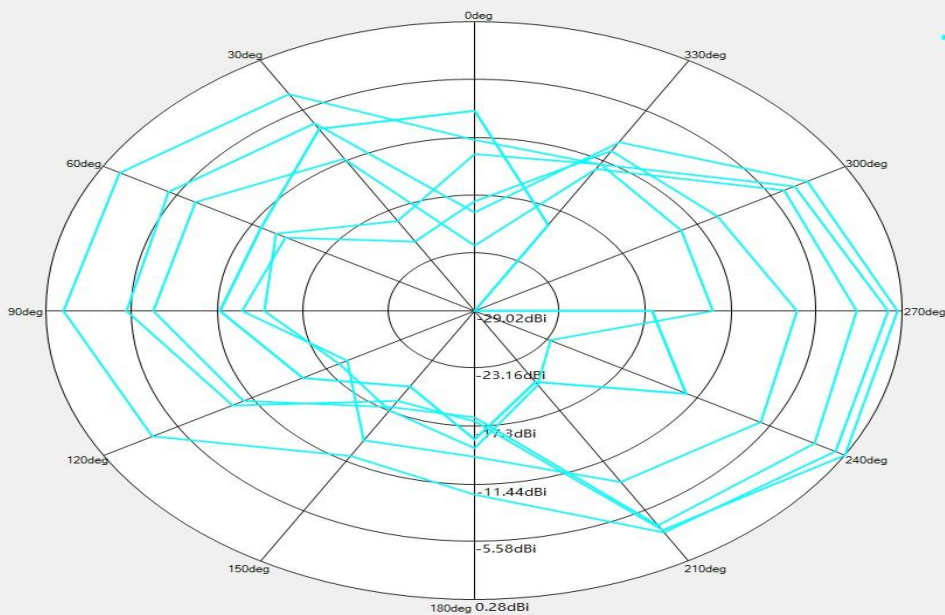
Zoom Scale



Data3D Data List Analysis Template

Frequency: 2450 ☐ Spline ☒ Theta Section ☐ Phi Section ☒ Theta ☐ Phi ☐ Total

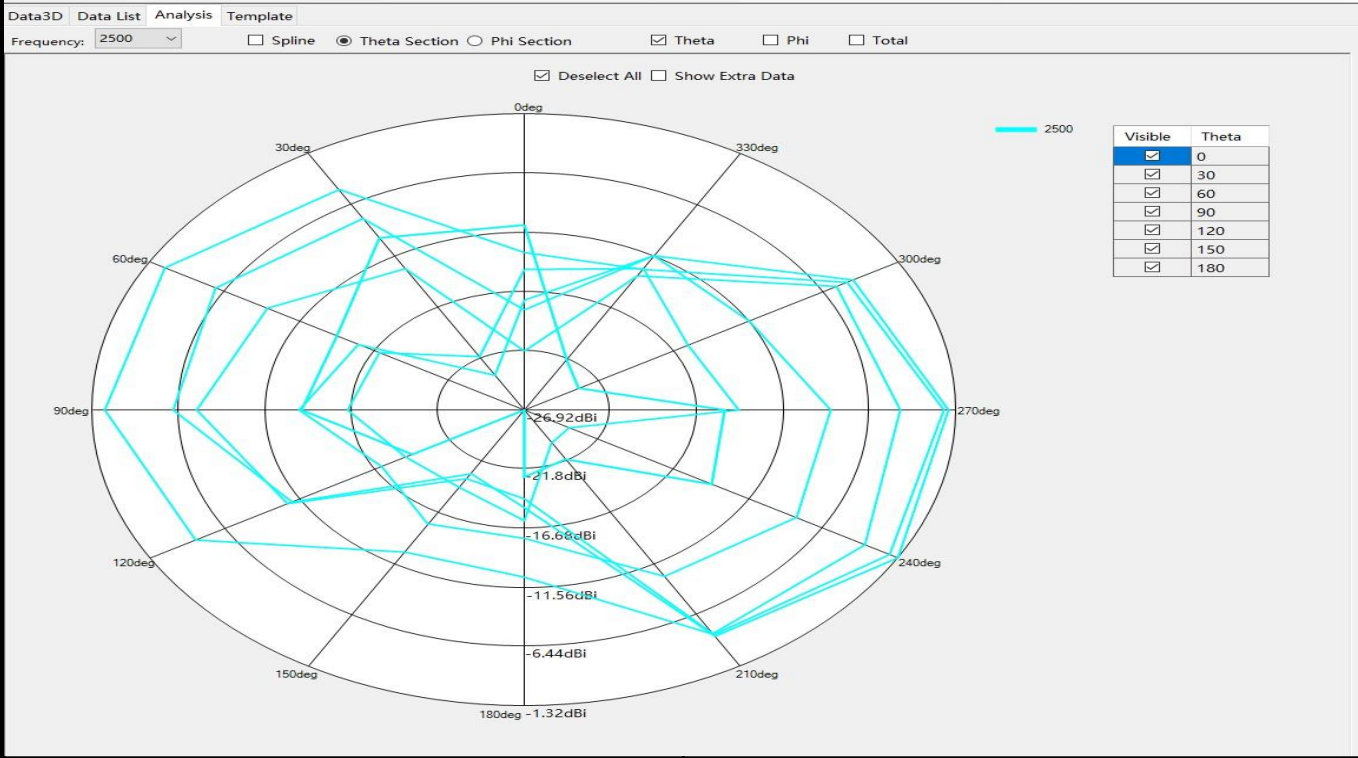
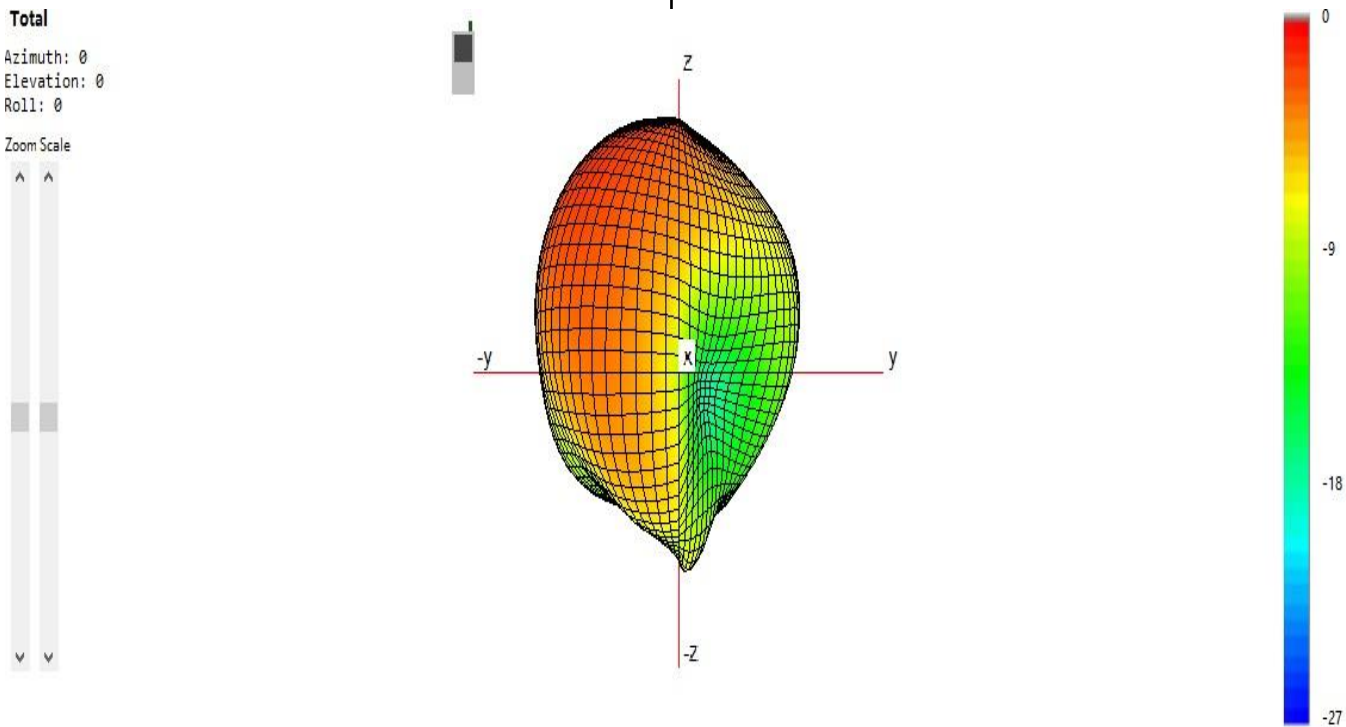
☒ Deselect All ☐ Show Extra Data



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



Radiation Pattern For WiFi Antenna (2.4G)



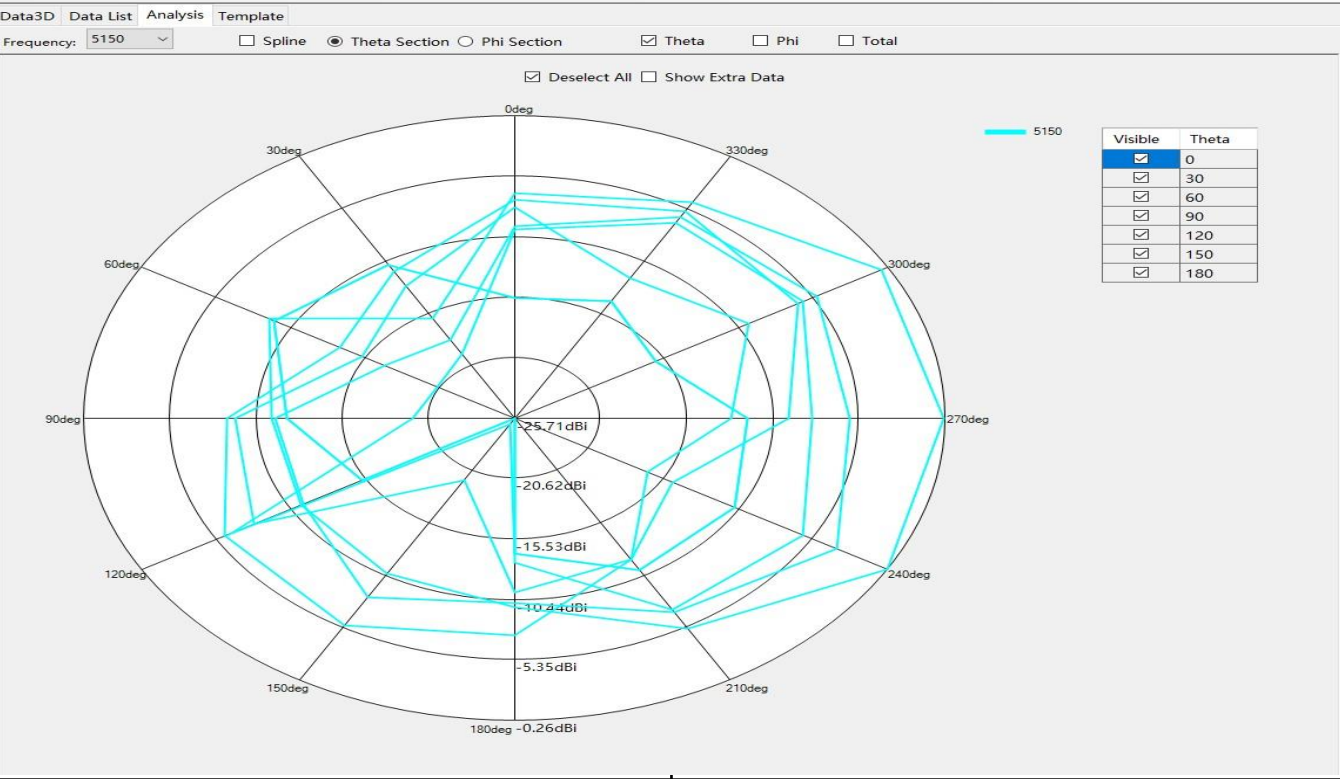
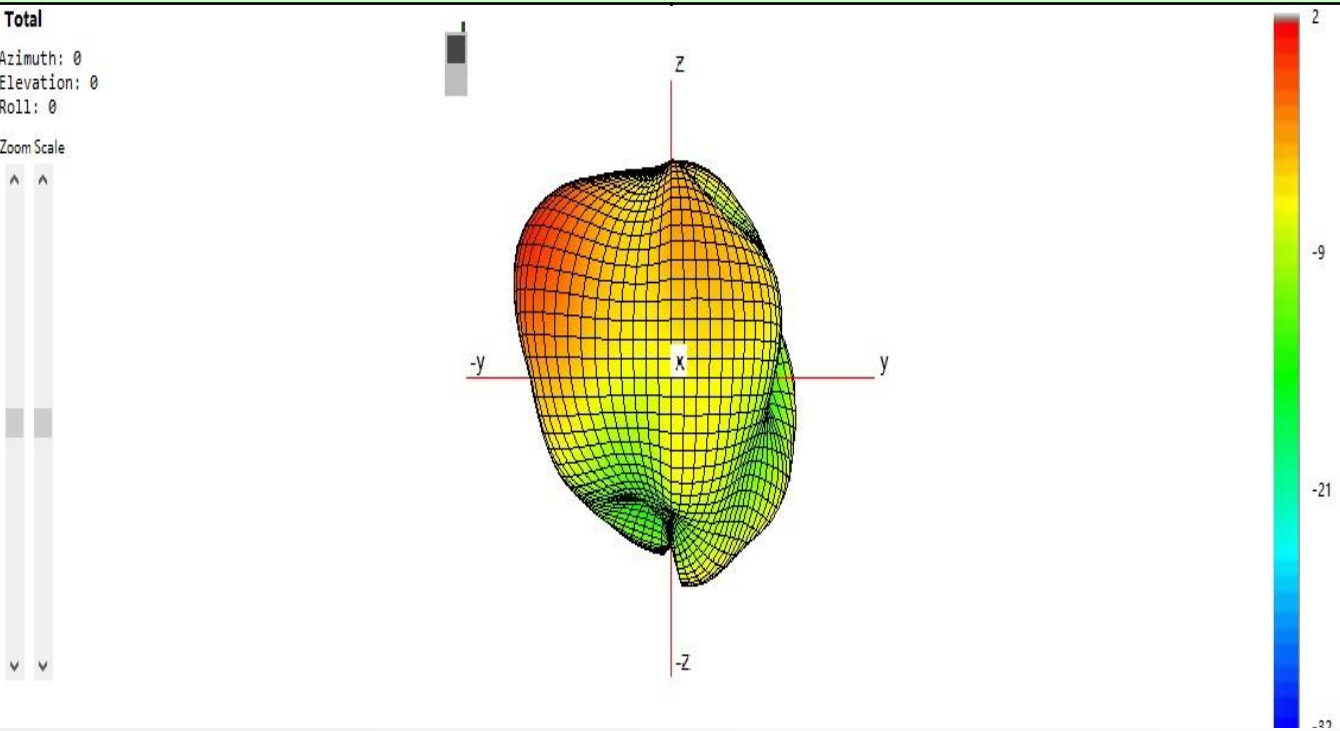


Passive Test For WiFi Antenna(5.8G)

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

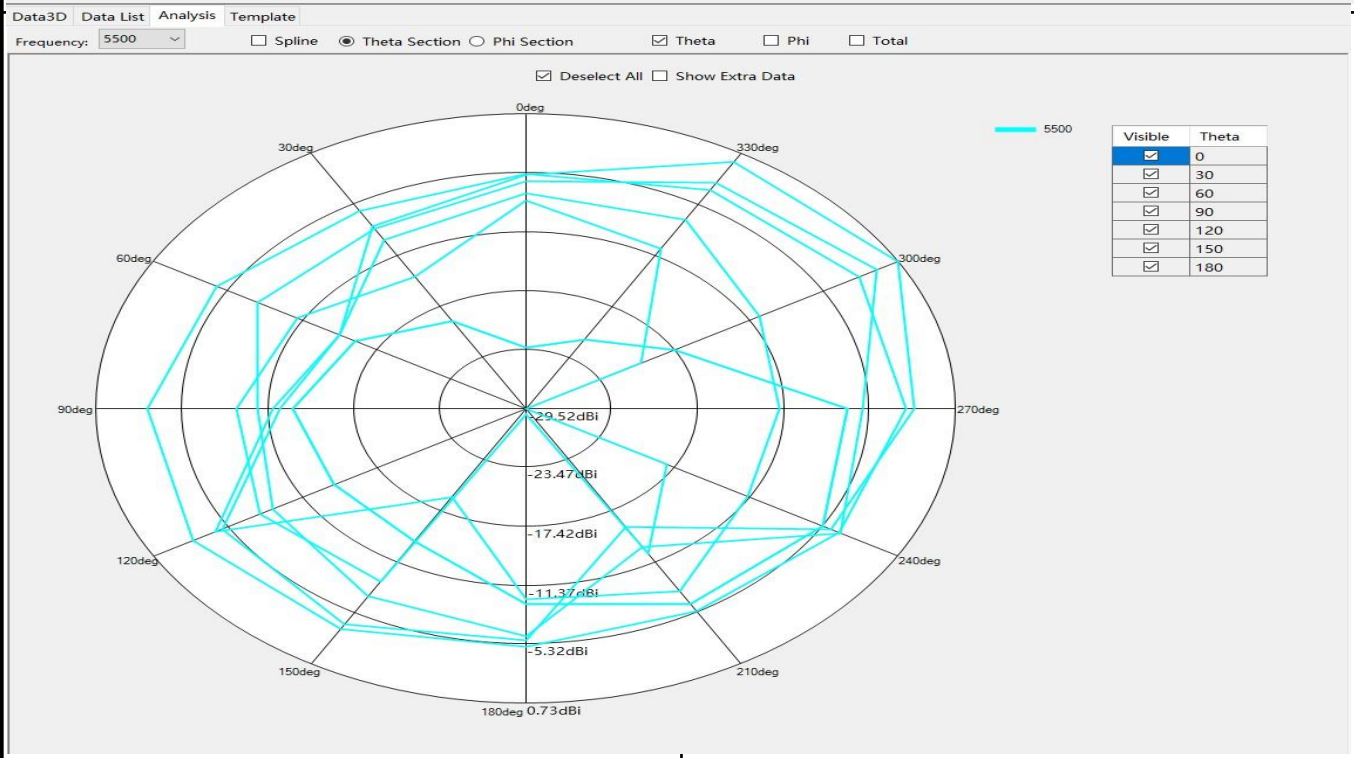
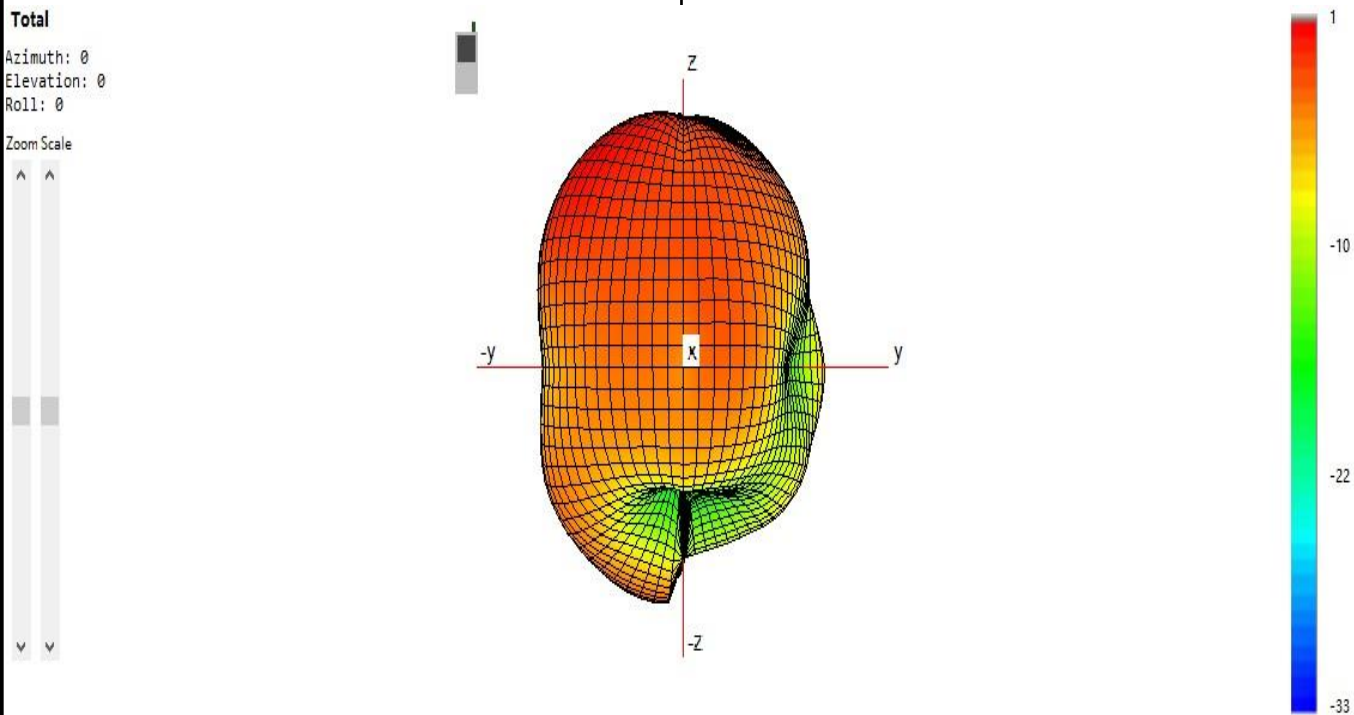


Radiation Pattern For WiFi Antenna (5.8G)





Radiation Pattern For WiFi Antenna (5.8G)



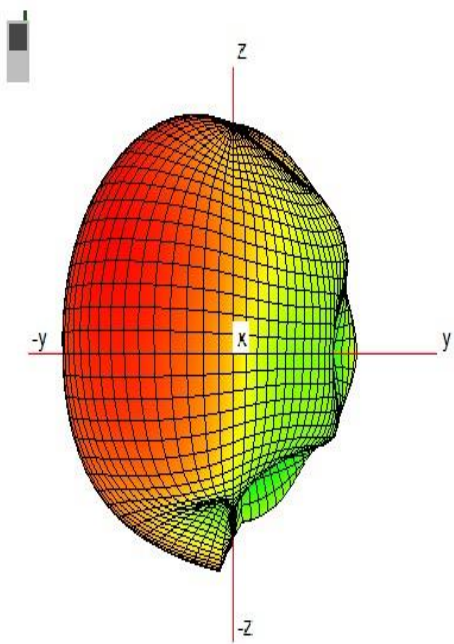


Radiation Pattern For WiFi Antenna (5.8G)

Total

Azimuth: 0
Elevation: 0
Roll: 0

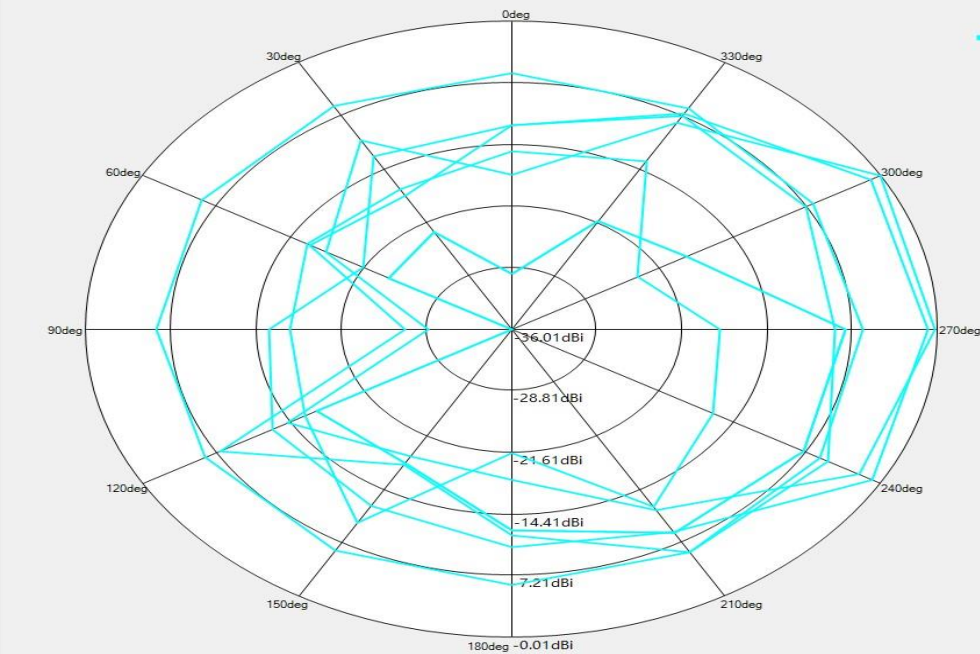
Zoom Scale



Data3D Data List Analysis Template

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

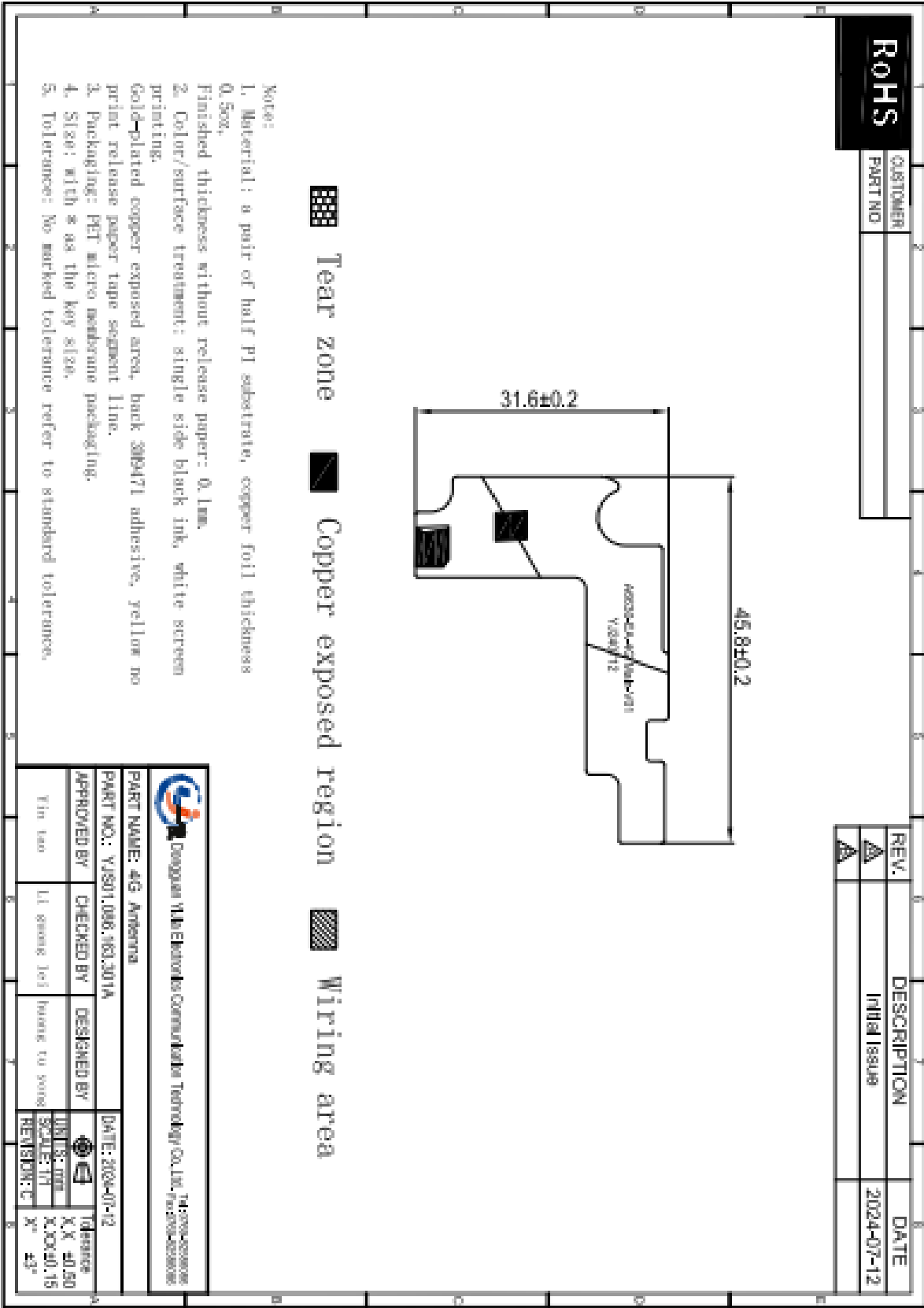
☒ Deselect All ☐ Show Extra Data



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



5.1 LTE Antenna size





5.2 GPS/WIFI/BT Antenna size

