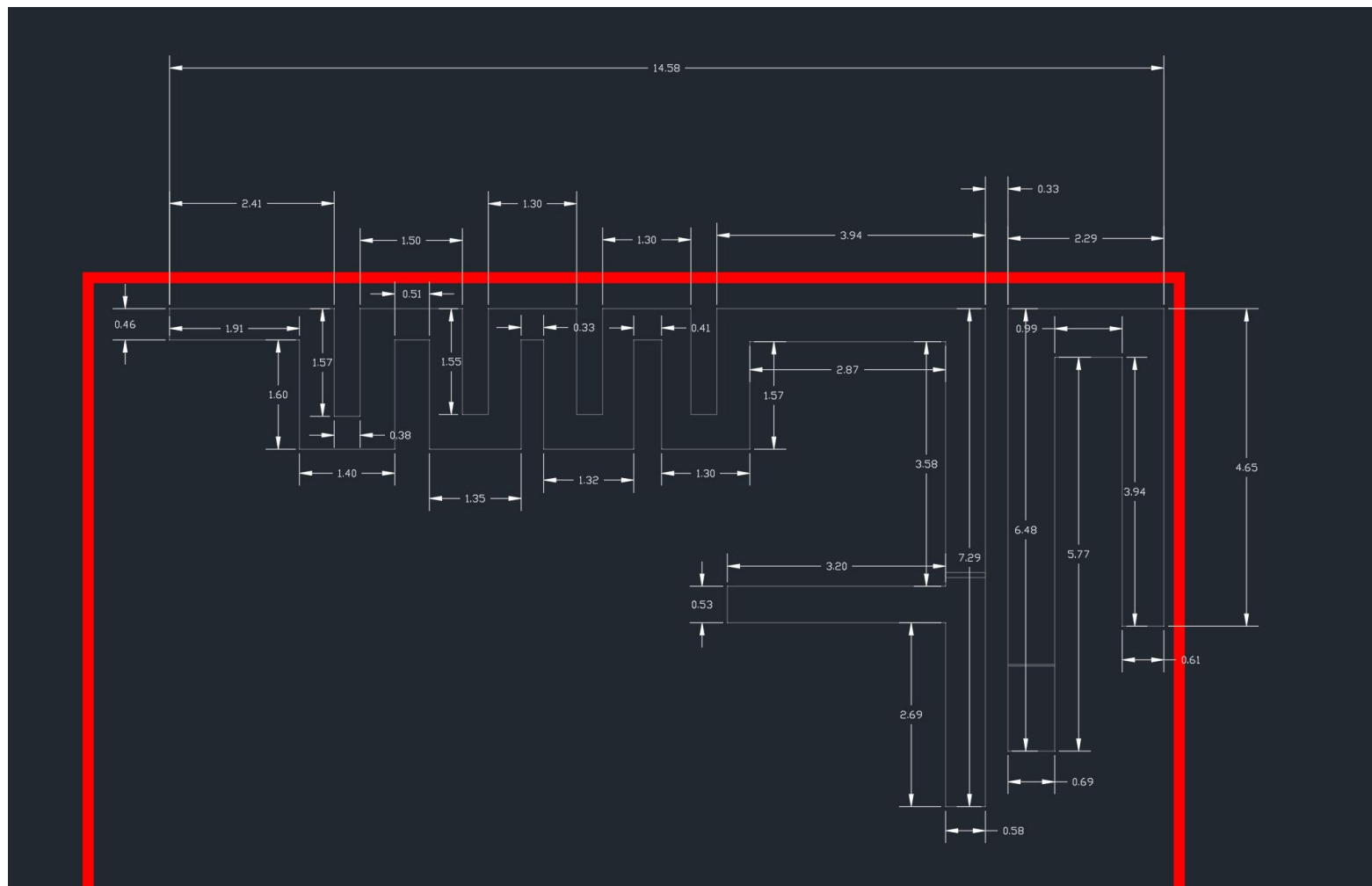


Antenna Specification

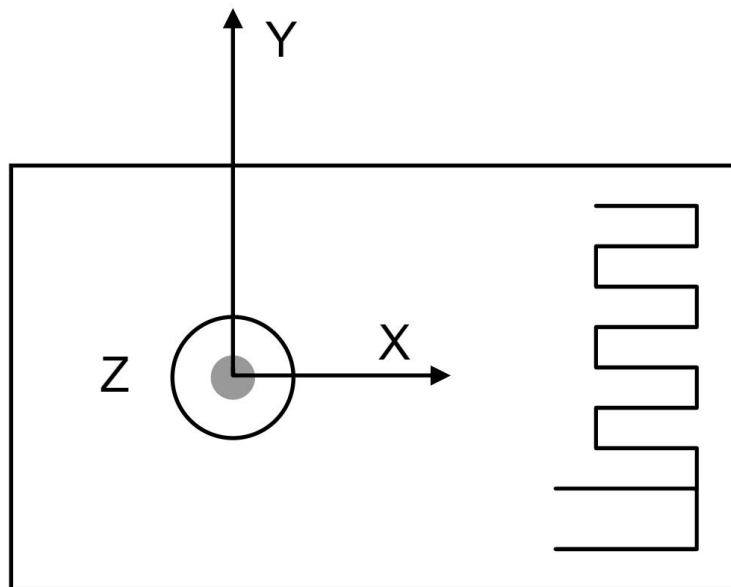
ITEM	SPEC
Antenna type	PCB Antenna(B)
Center Frequency	2400Mhz 1.74dbi 2440Mhz 1.51dbi 2480Mhz 0.71dbi 5200Mhz 1.52dbi 5800Mhz 2.71dbi
2.4G MAX GAIN	1.74dbi
5G MAX GAIN	2.71dbi
Polarization	Horizontal
Azimuth Beam Pattern	Omni-directional
Impedance	50ohm
2.4G Antenna Length	45mm
5G Antenna Length	45mm

Antenna Photo & Length(mm)

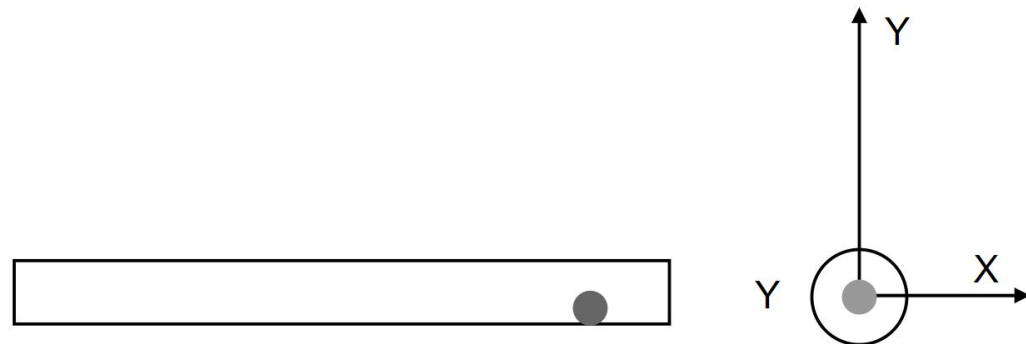


Coordinate System Reference: Antenna

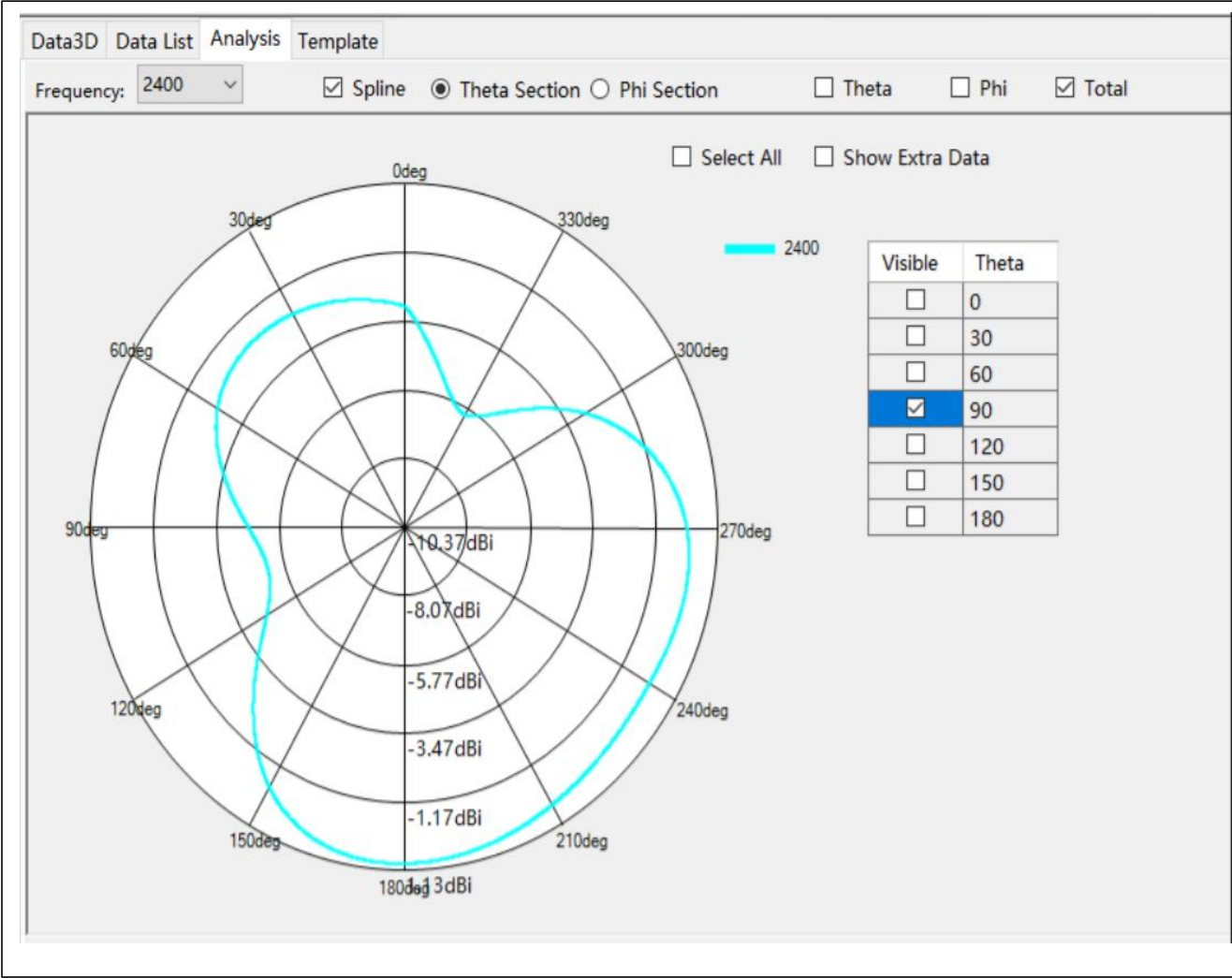
Top view



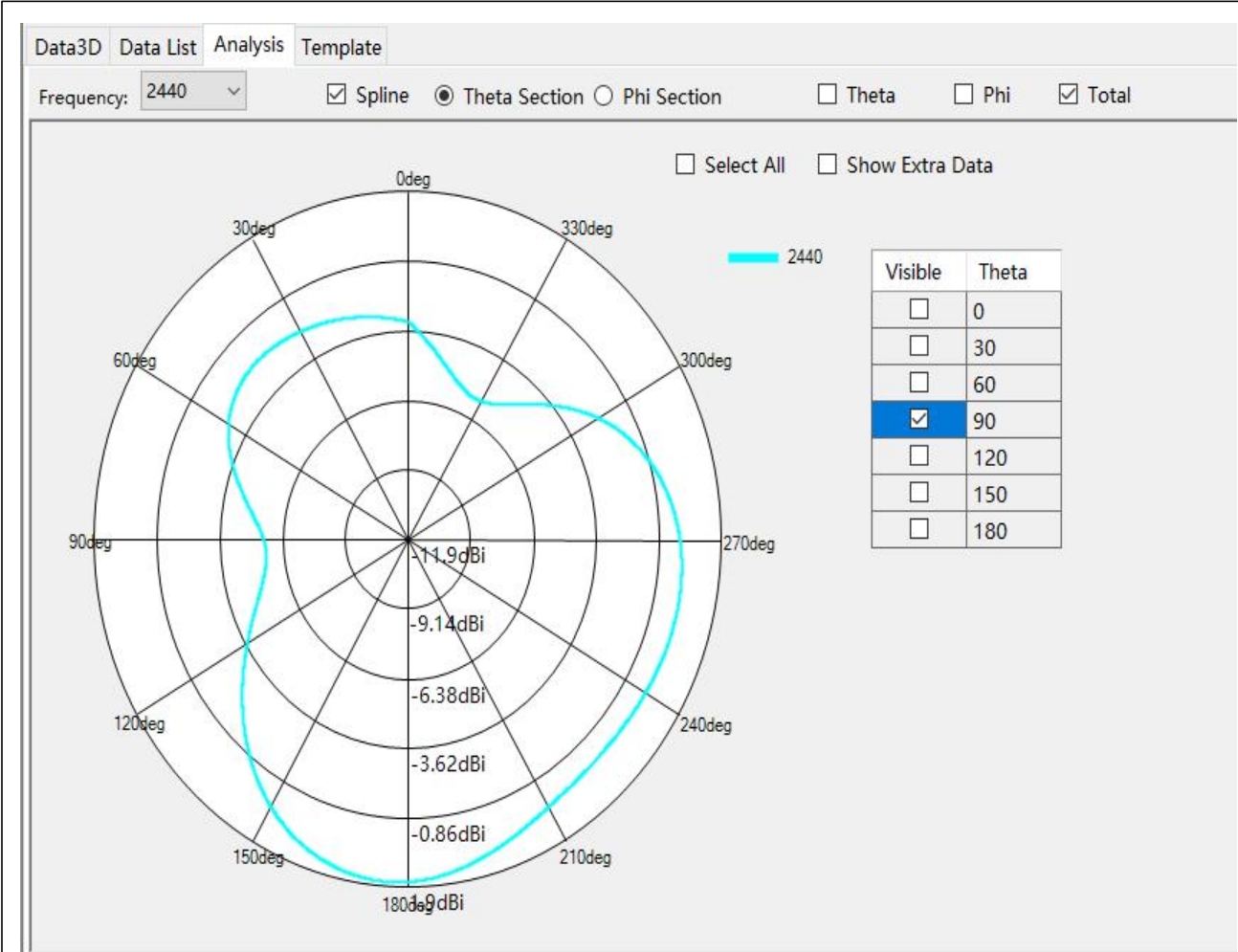
Side view



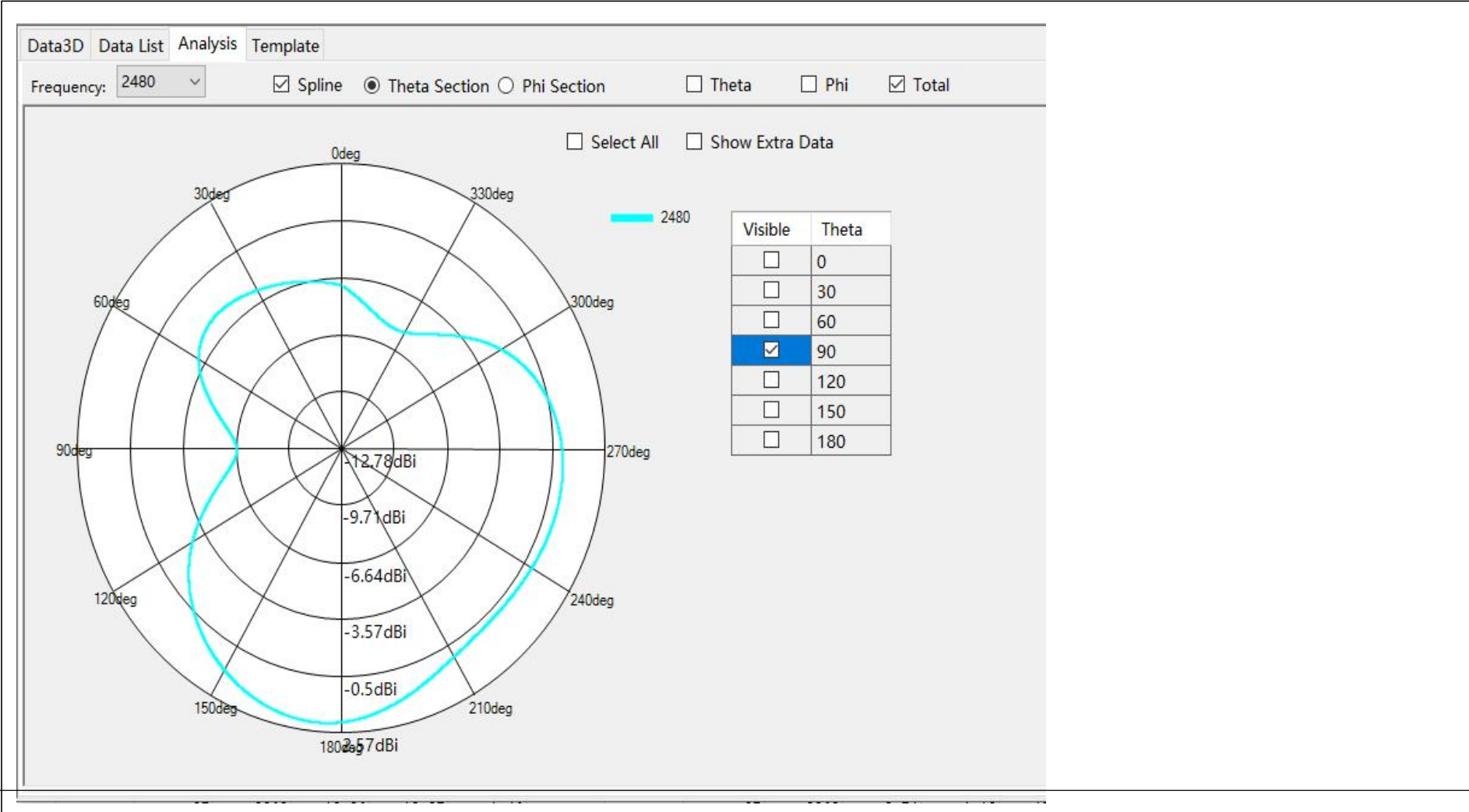
2D Radiation pattern f = 2400MHz



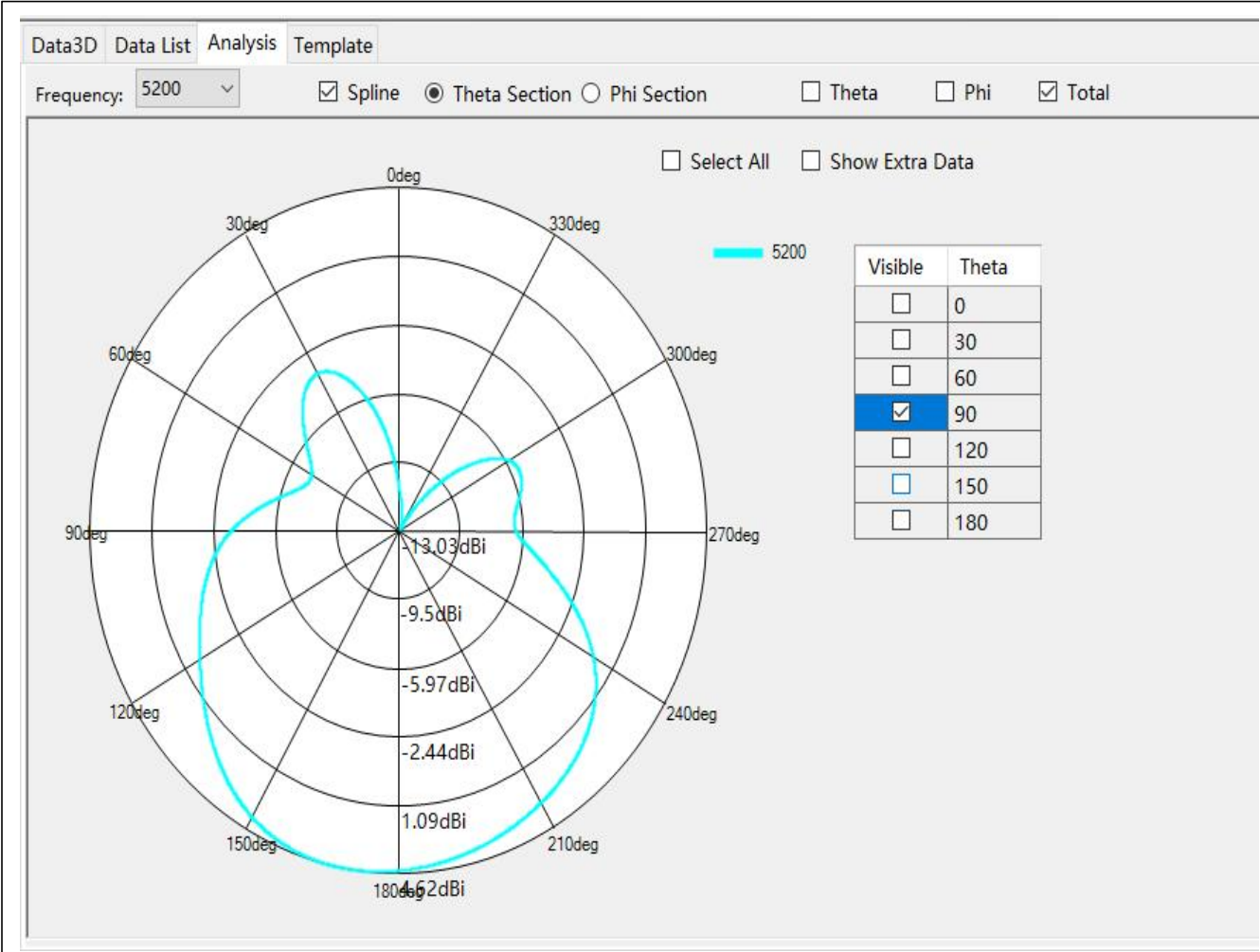
2D Radiation pattern f = 2440MHz



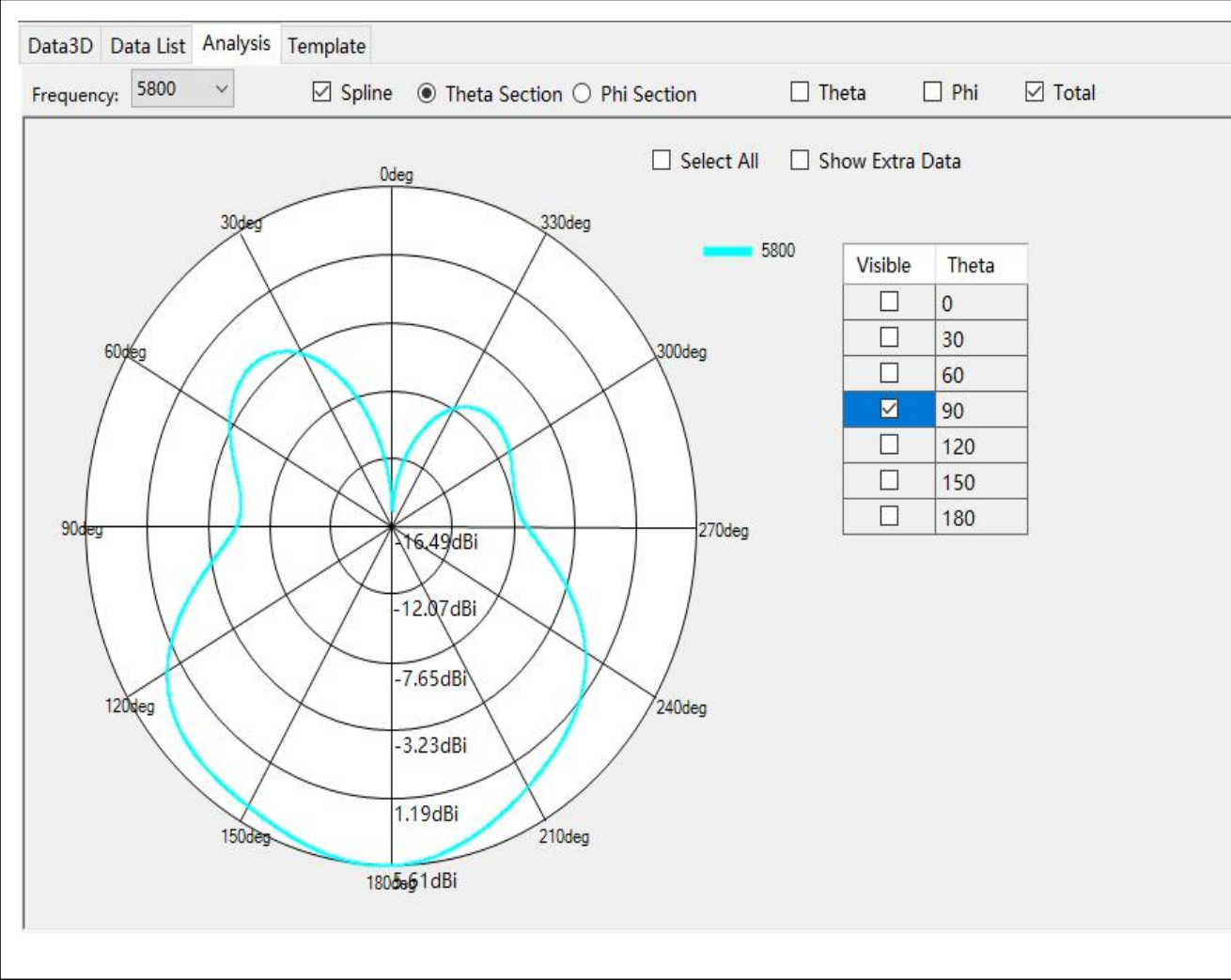
2D Radiation pattern f = 2480MHz



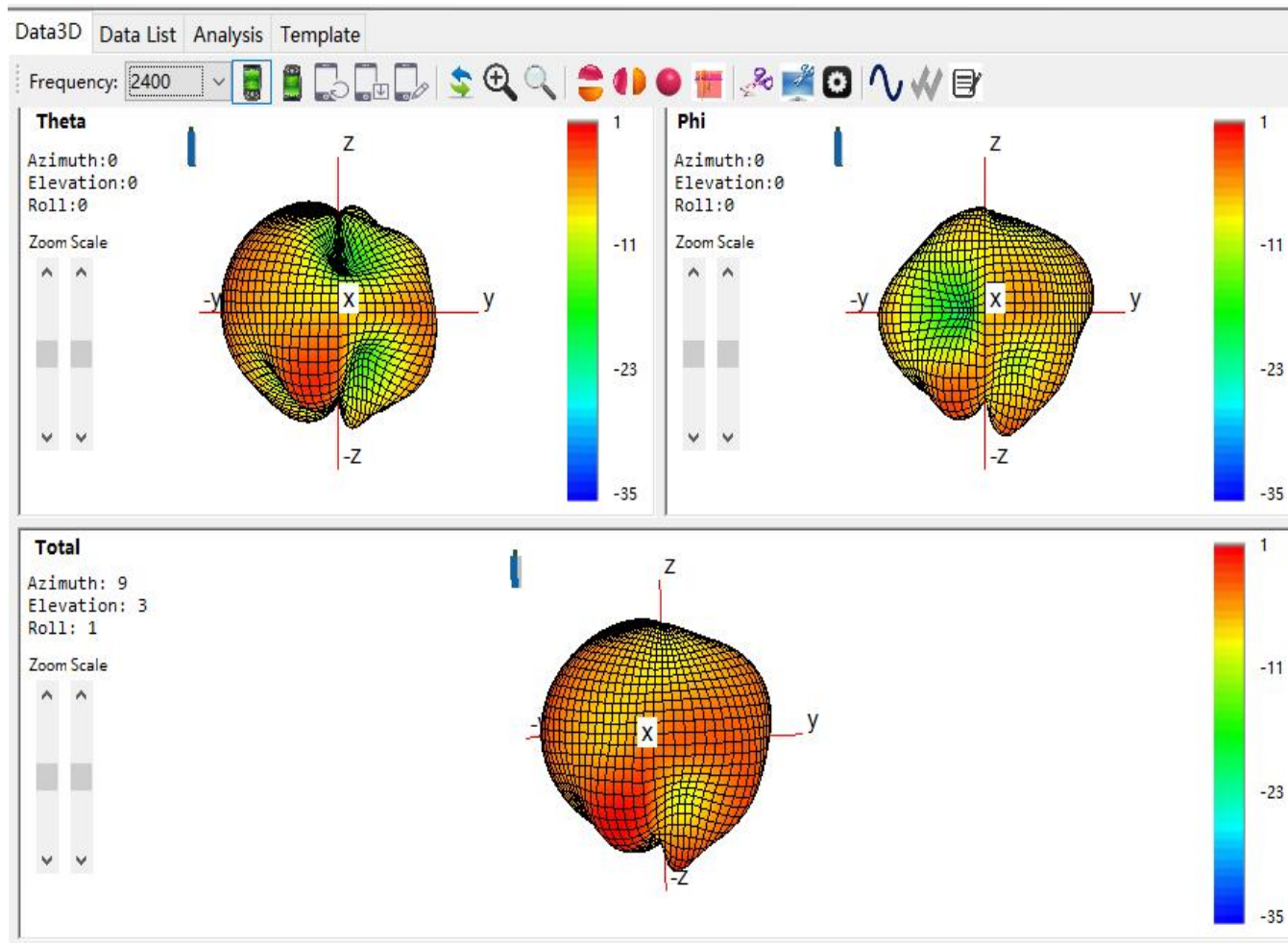
2D Radiation pattern f = 5200



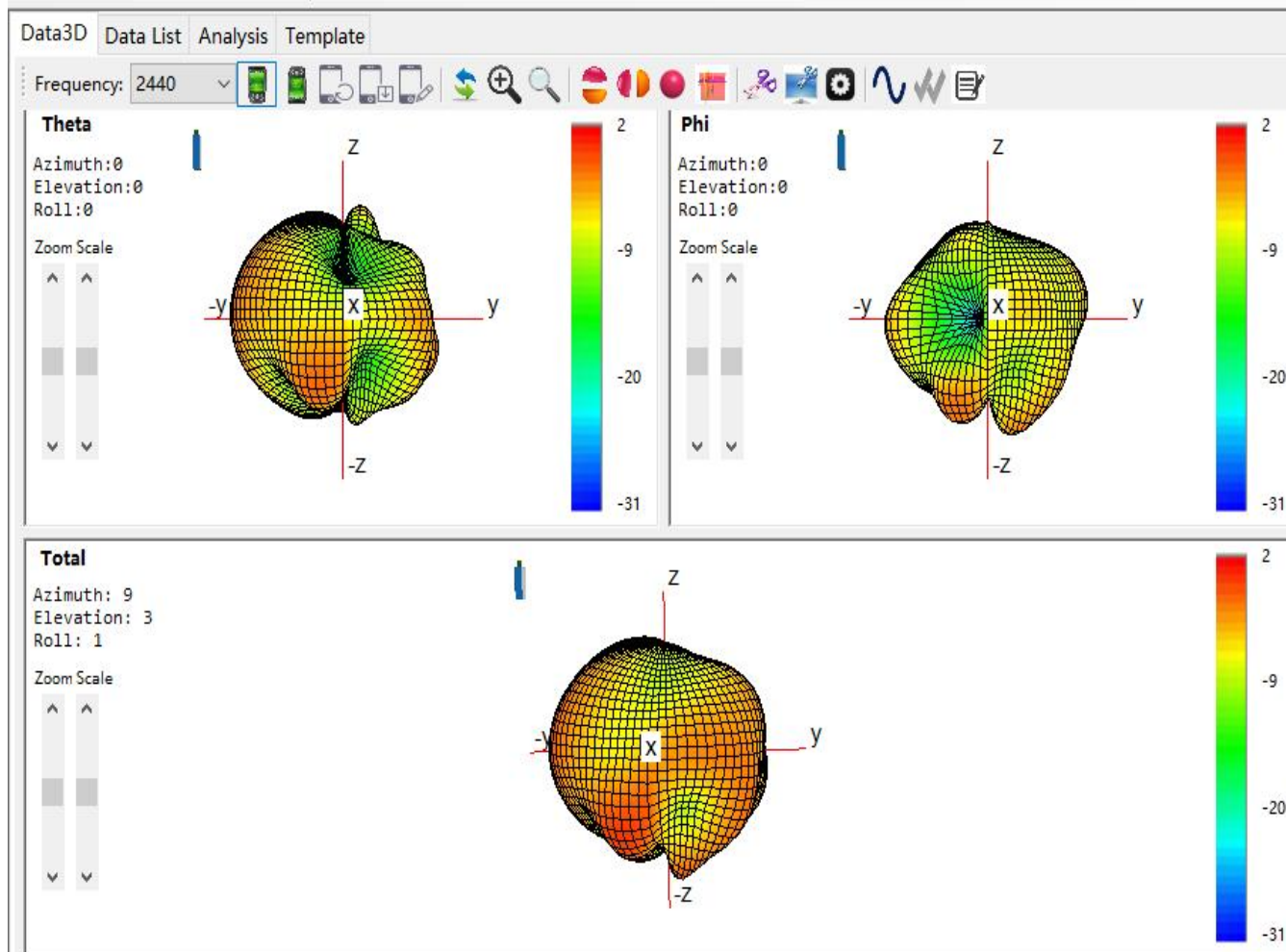
2D Radiation pattern f = 5800MHz



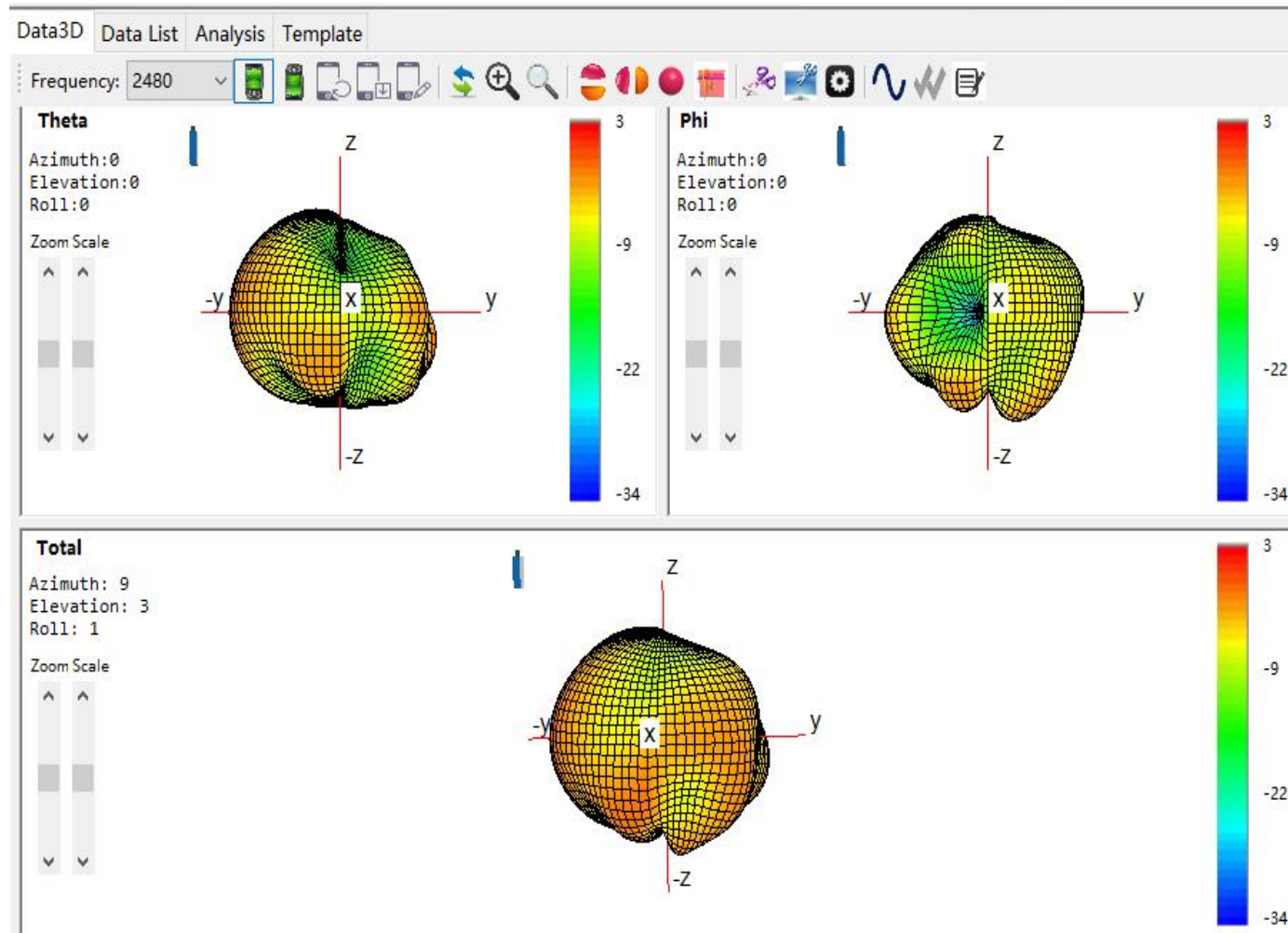
3D Radiation pattern $f = 2400\text{MHz}$



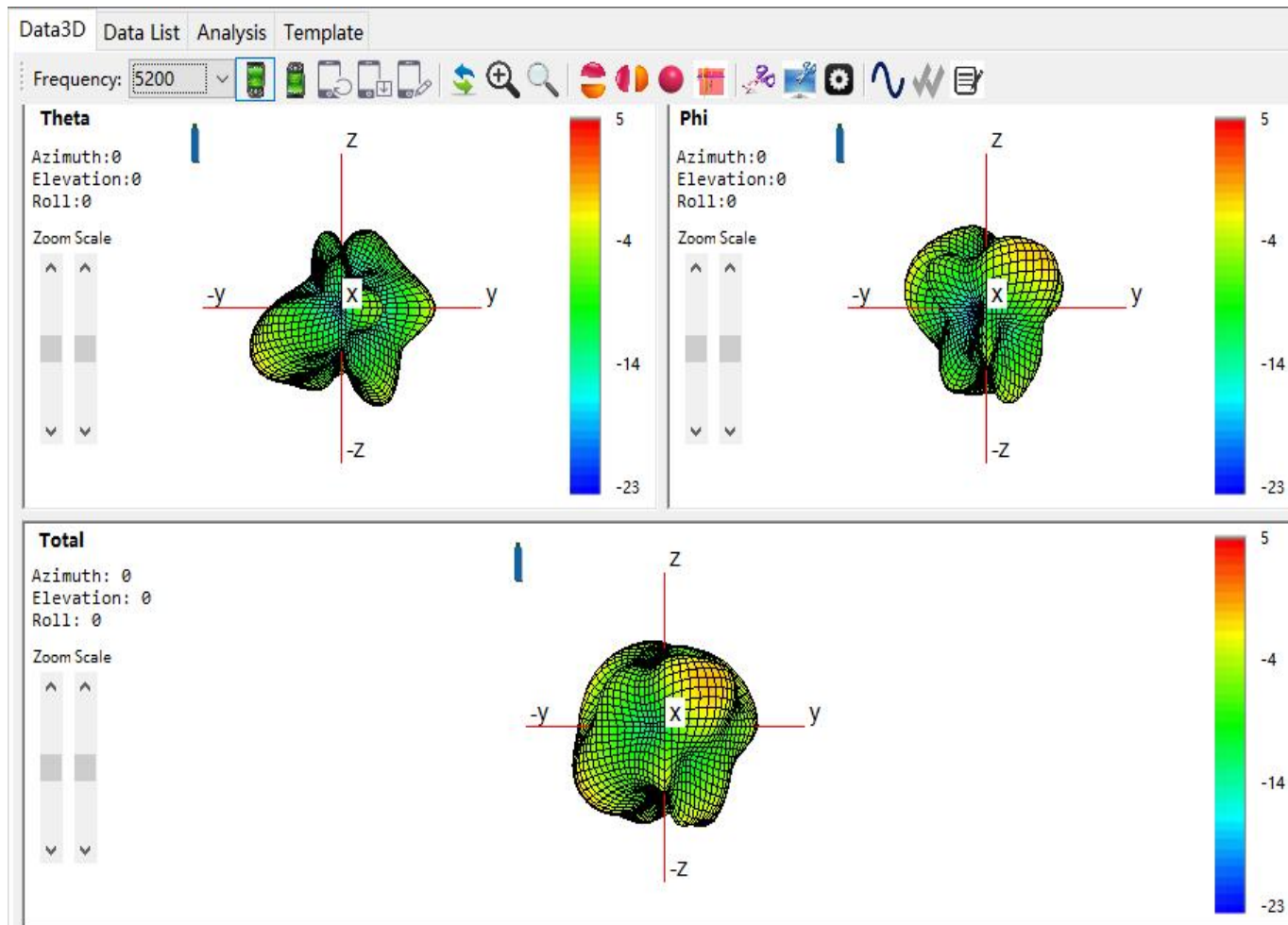
3D Radiation pattern $f = 2440\text{MHz}$



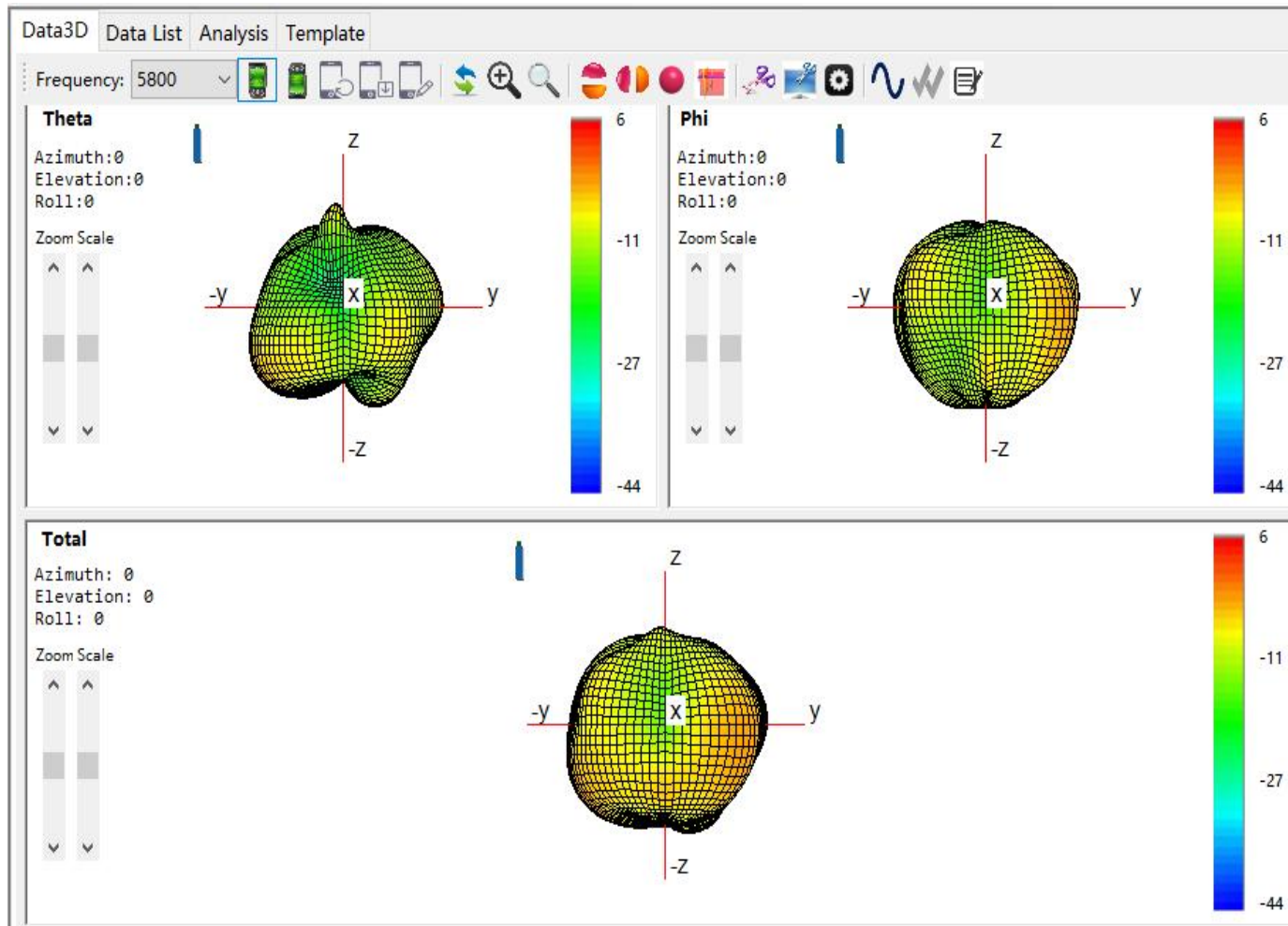
3D Radiation pattern $f = 2480\text{MHz}$



3D Radiation pattern f = 5200MHz



3D Radiation pattern $f = 5800\text{MHz}$



Measurements summary

Frequency(GHz)	Gain(dBi)	CP Gain(dBi)	CO Gain(dBi)	Efficiency(dB)	Efficiency(%)
2400	1.74	--	--	--	38.27
2410	1.75	--	--	--	38.79
2420	1.5	--	--	--	37.14
2430	1.5	--	--	--	36.52
2440	1.51	--	--	--	36.13
2450	1.47	--	--	--	36.12
2460	1.26	--	--	--	34.52
2470	0.96	--	--	--	32.86
2480	0.71	--	--	--	31.58
2490	0.71	--	--	--	30.54
2500	0.73	--	--	--	30.26

Frequency(GHz)	Gain(dBi)	CP Gain(dBi)	CO Gain(dBi)	Efficiency(dB)	Efficiency(%)
5000	1.81	--	--	--	34.59
5020	1.53	--	--	--	31.75
5040	1.6	--	--	--	32.82
5060	1.71	--	--	--	34.86
5080	1.74	--	--	--	36.3
5100	1.83	--	--	--	31.42
5120	1.41	--	--	--	34.49
5140	1.74	--	--	--	35.29
5160	1.51	--	--	--	30.59
5180	2.19	--	--	--	37.56
5200	1.52	--	--	--	31.54
5700	2.17	--	--	--	34.56
5720	2.22	--	--	--	38.76
5740	2.25	--	--	--	33.26
5760	2.11	--	--	--	32.25
5780	2.20	--	--	--	32.42
5800	2.29	--	--	--	32.54
5820	2.31	--	--	--	33.31
5840	2.42	--	--	--	34.05
5860	2.71	--	--	--	34.38
5880	2.30	--	--	--	33.29
5900	2.29	--	--	--	32.56

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