

Antenna Specification

Antenna Type:

BLE& BT&2.4G Wi-Fi& 5G Wi-Fi Antenna 1: PIFA antenna

2.4G Wi-Fi& 5G Wi-Fi Antenna 2: FPC antenna

Antenna Model:

BLE& BT&2.4G Wi-Fi& 5G Wi-Fi Antenna 1: WD200-ANT

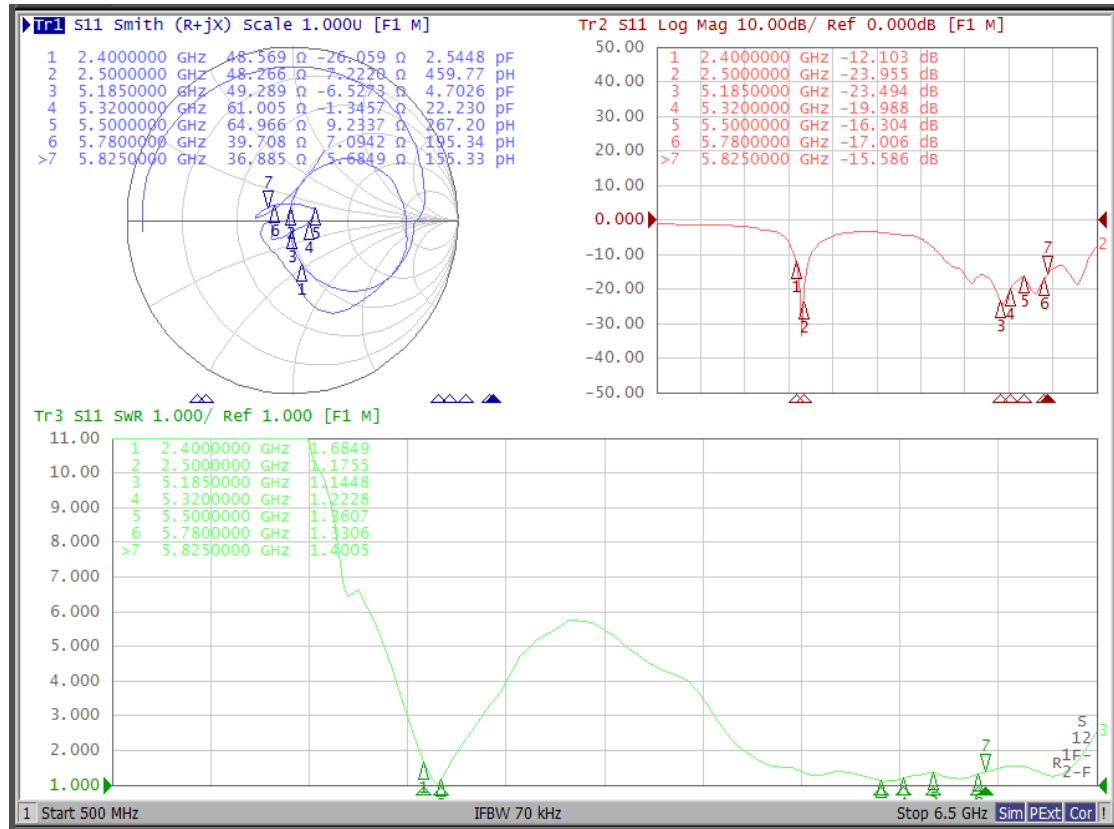
2.4G Wi-Fi& 5G Wi-Fi Antenna 2: HXT-Z300

Unitech Electronics Co., Ltd.

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BLE& BT&2.4G Wi-Fi& 5G Wi-Fi Antenna 1

S11(VSWR+RL+Smith)

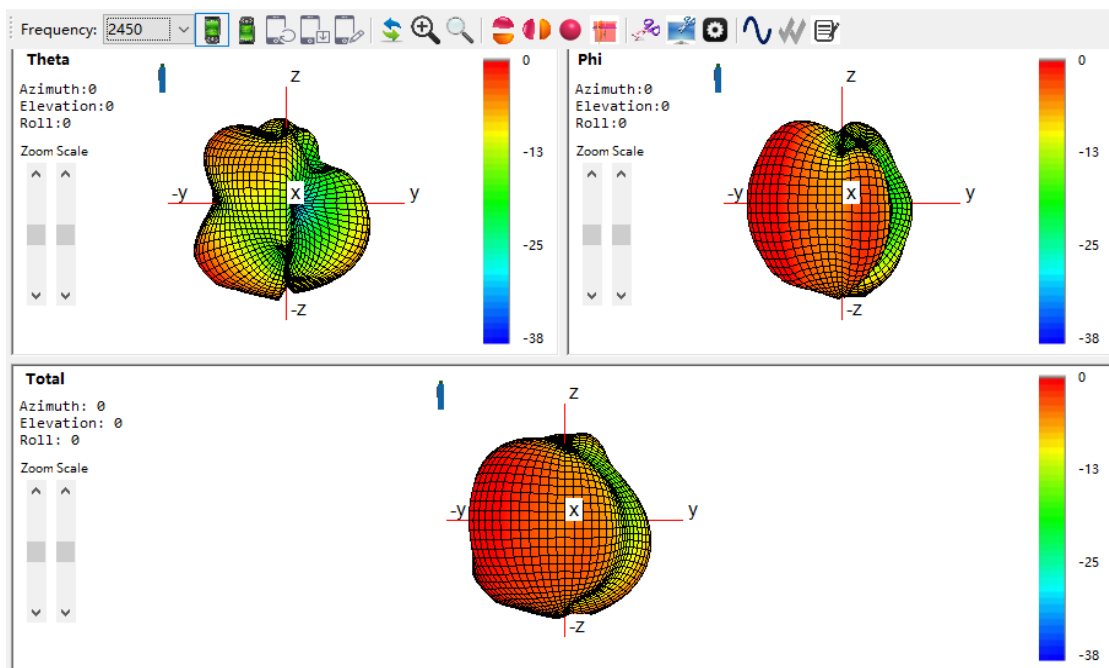
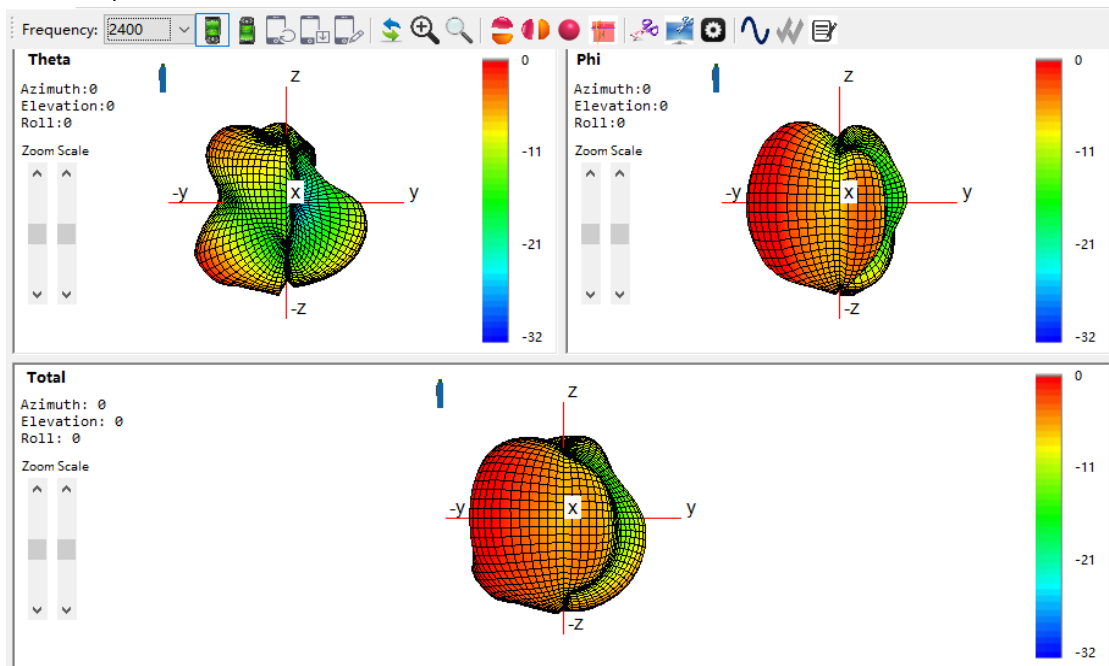


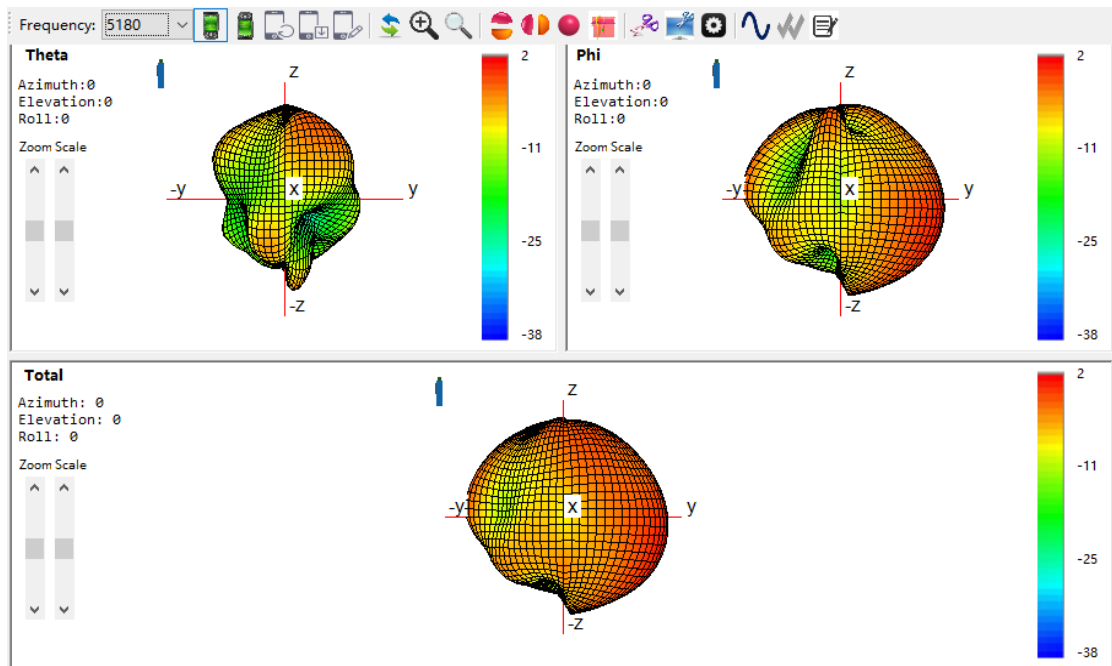
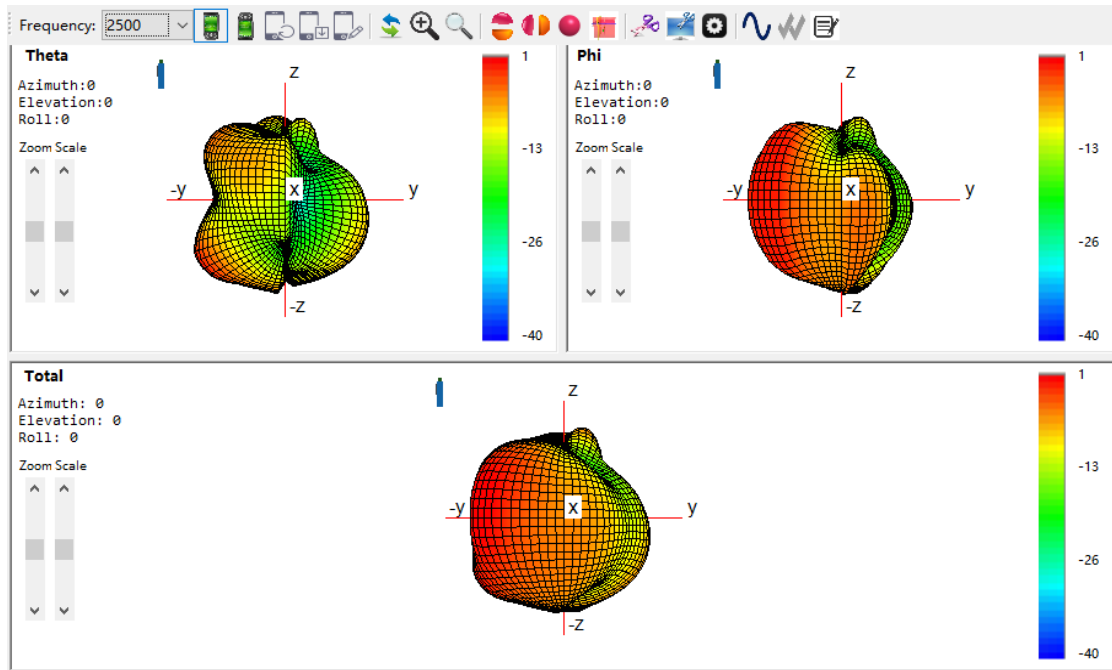
BT&BLE&2.4G WIFI			
Frequency (MHz)	Ave Gain (dBi)	Peak Gain (dBi)	Effi (%)
2350	-4.58	-0.5	34.8
2360	-4.52	-0.42	35.3
2370	-4.44	-0.29	35.97
2380	-4.69	-0.47	34
2390	-4.53	-0.32	35.25
2400	-4.45	-0.34	35.91
2410	-4.53	-0.4	35.26
2420	-4.47	-0.28	35.74
2430	-4.44	-0.36	35.97
2440	-4.33	-0.19	36.87
2450	-4.28	-0.12	37.34
2460	-4.35	-0.16	36.74
2470	-4.4	-0.12	36.3
2480	-4.35	0.06	36.7
2490	-4.34	0.14	36.8
2500	-4.4	0.06	36.34
2510	-4.39	0.16	36.41

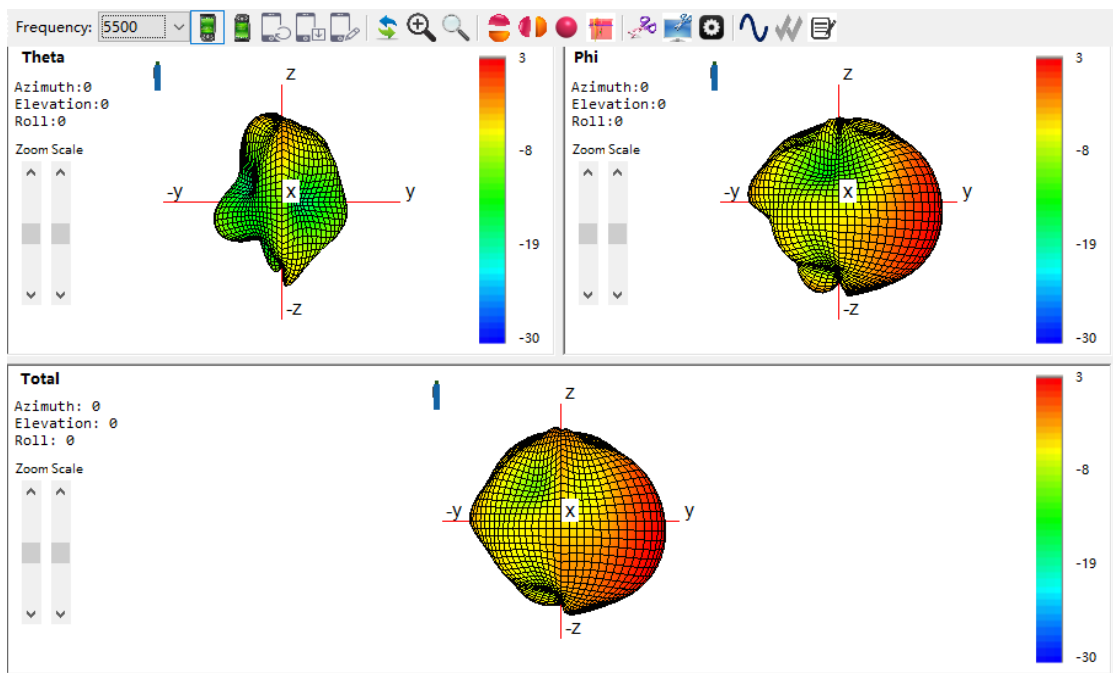
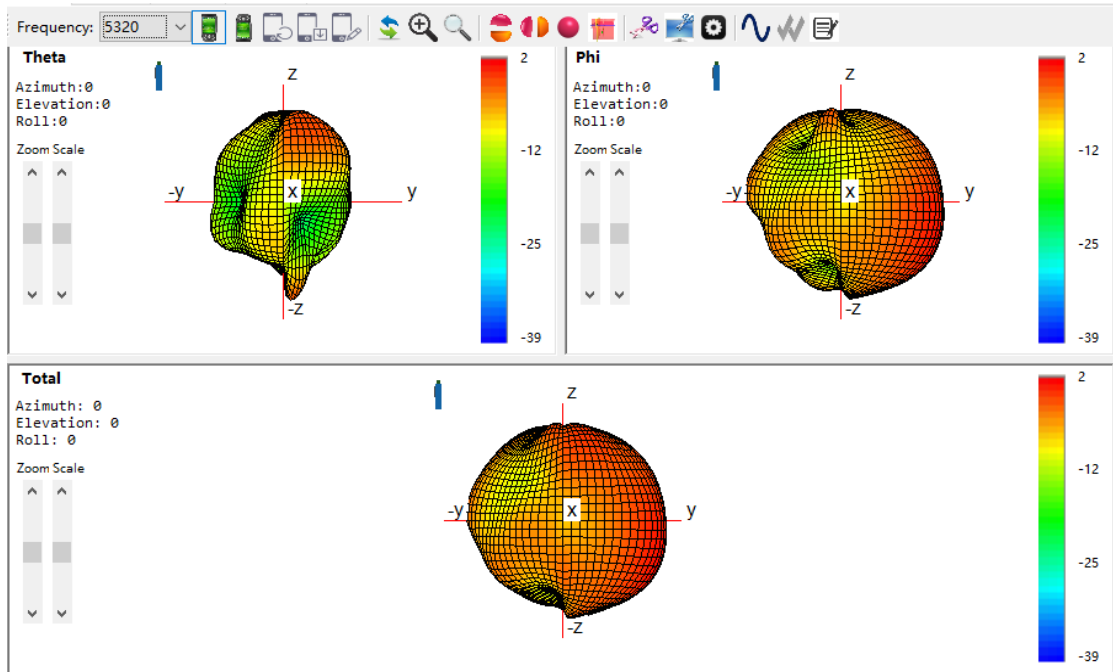
2520	-4.55	-0.06	35.05
2530	-4.86	-0.25	32.67
2540	-4.84	-0.19	32.85
2550	-4.97	-0.36	31.85

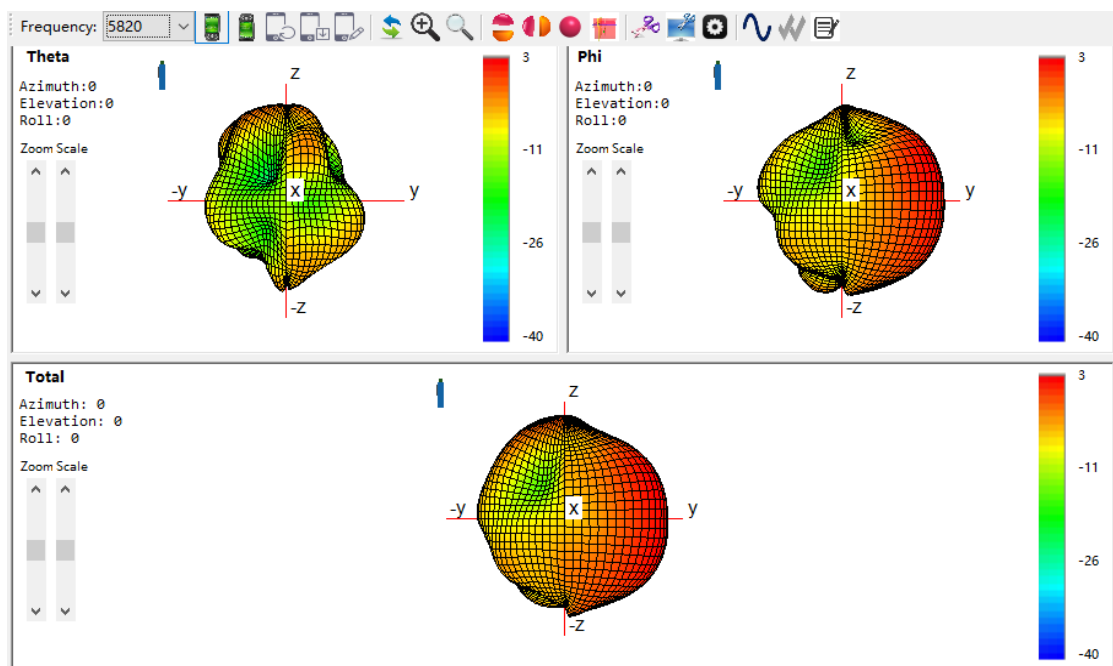
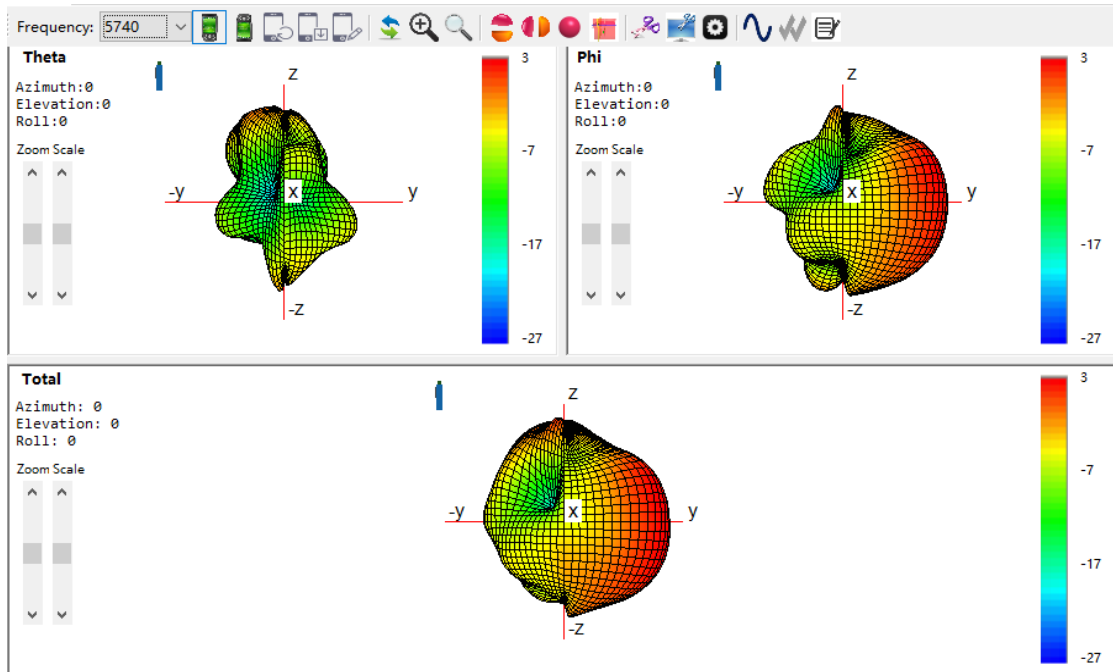
5G WIFI			
Frequency (MHz)	Ave Gain (dBi)	Peak Gain (dBi)	Effi (%)
5180	-3.38	1.76	45.91
5200	-3.25	1.58	47.36
5220	-2.92	1.96	51.06
5240	-2.92	1.61	51.06
5260	-3.11	1.17	48.87
5280	-2.86	1.65	51.72
5300	-3.16	1.28	48.36
5320	-3.02	1.27	49.93
5340	-3.03	1.42	49.83
5360	-3.22	1.21	47.68
5380	-2.77	2.3	52.78
5400	-2.82	1.82	52.26
5420	-2.86	2.11	51.77
5440	-3.02	2.02	49.92
5460	-3.22	2.05	47.64
5480	-3.27	1.87	47.05
5500	-3.03	2.87	49.82
5520	-3.23	2.54	47.57
5540	-3.19	2.59	47.93
5560	-3.45	2.38	45.23
5580	-3.15	2.73	48.45
5600	-3.1	2.97	48.93
5620	-2.84	2.84	51.98
5640	-3.15	2.45	48.43
5660	-3.19	2.71	47.98
5680	-3.29	2.29	46.93
5700	-3.27	2.48	47.05
5720	-3.21	2.43	47.79
5740	-2.94	2.75	50.85
5760	-3.42	2.12	45.48
5780	-3.51	2.37	44.56
5800	-3.32	2.63	46.6
5820	-3.18	2.68	48.08
5840	-3.23	3.01	47.48
5860	-3.38	2.72	45.97

Radiation pattern



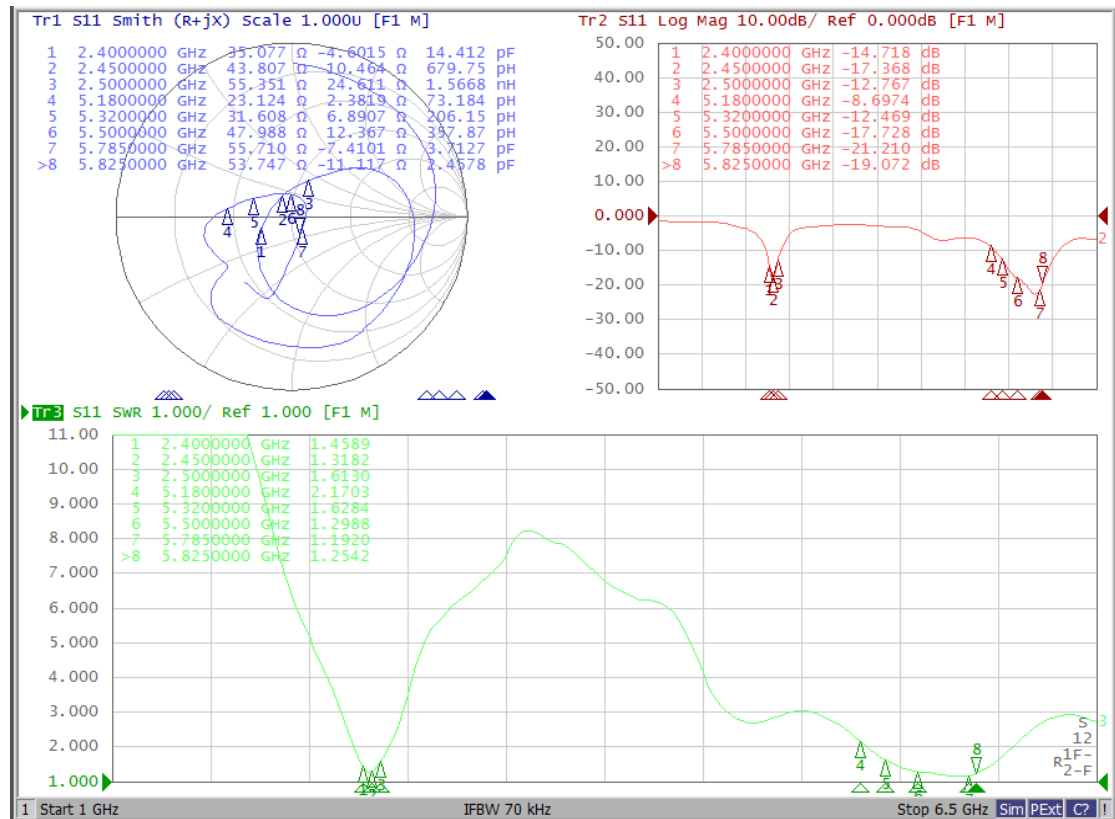






2.4G Wi-Fi& 5G Wi-Fi Antenna 2

S11(VSWR+RL+Smith)

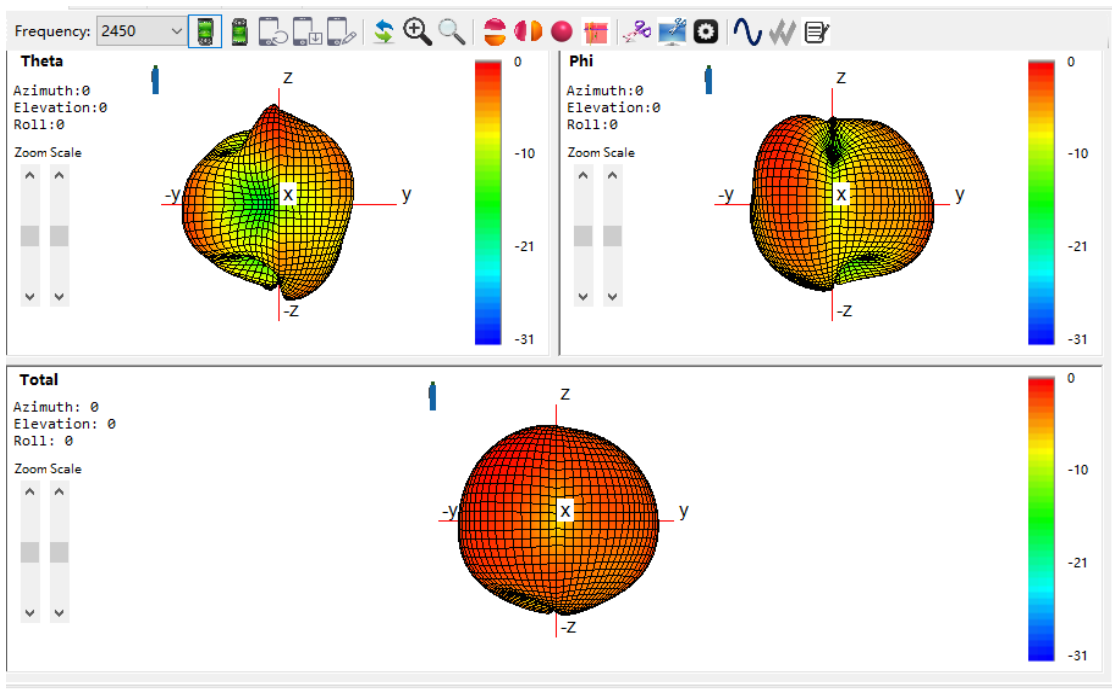
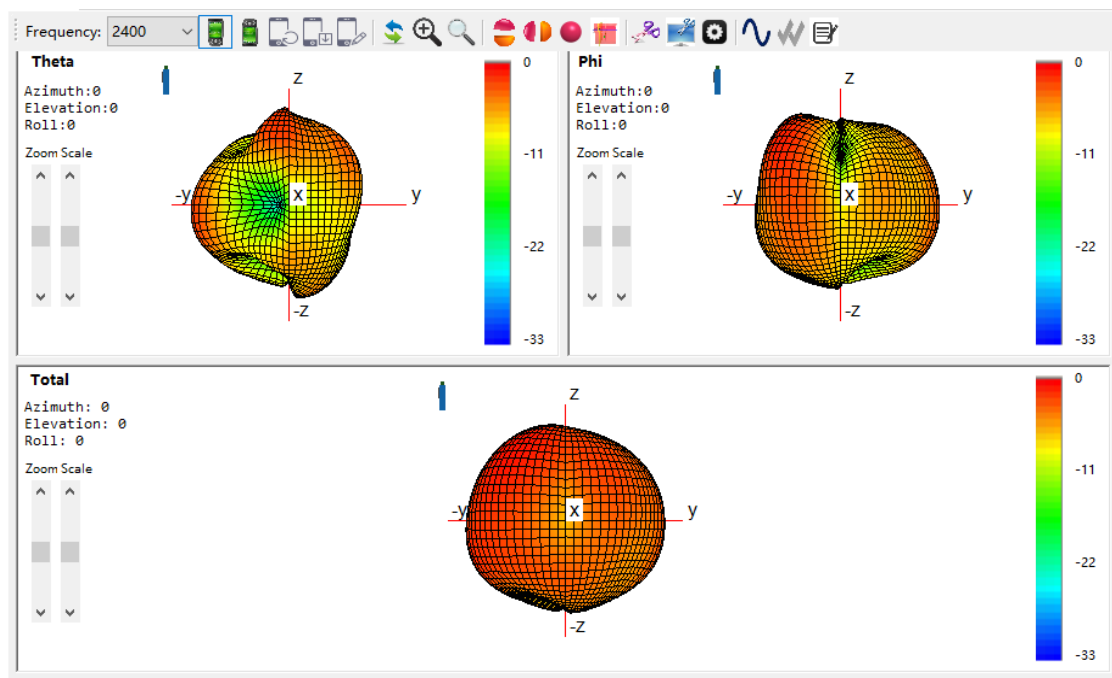


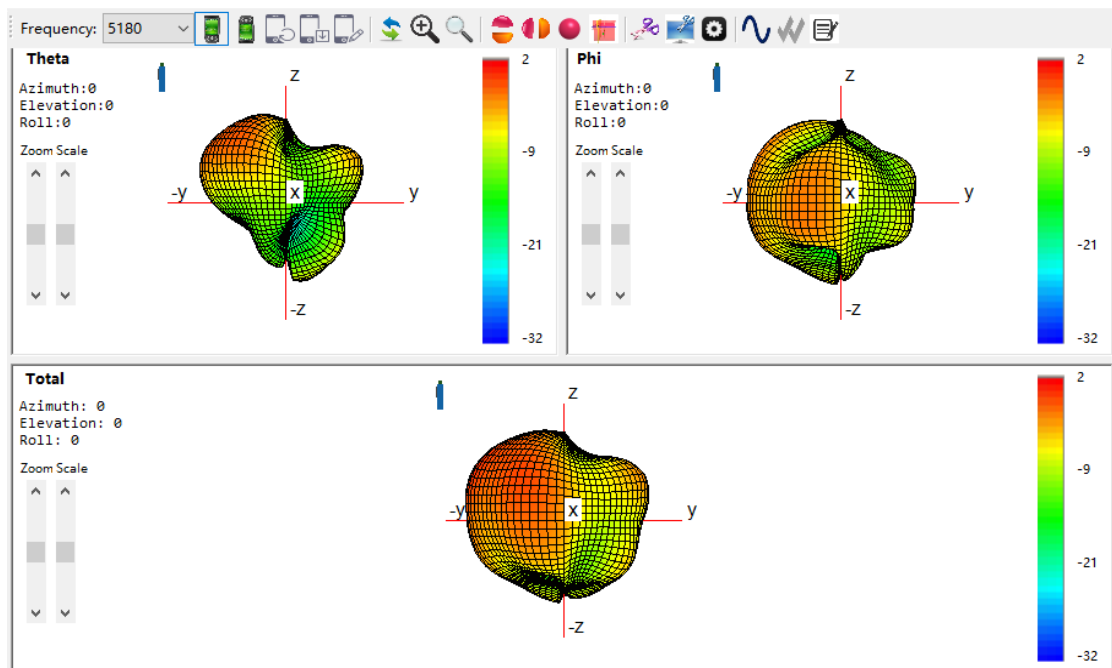
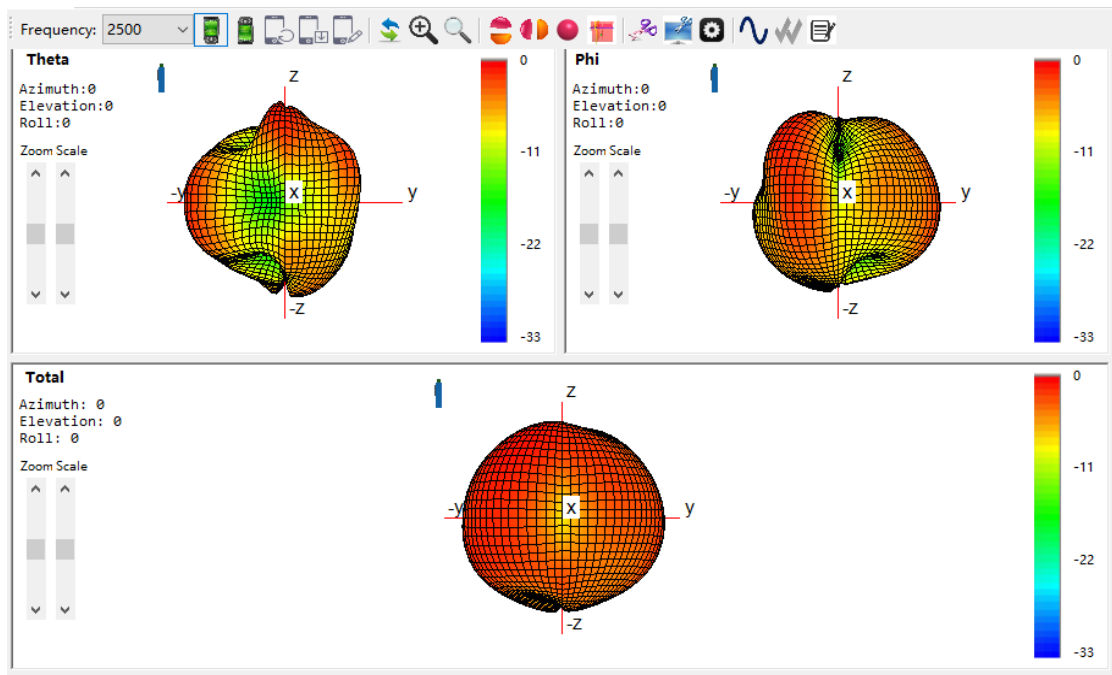
2.4G WIFI			
Frequency (MHz)	Ave Gain (dBi)	Peak Gain (dBi)	Effi (%)
2350	-4.97	-1.26	31.85
2360	-4.9	-1.09	32.36
2370	-4.74	-0.9	33.59
2380	-4.93	-1.16	32.12
2390	-4.74	-0.97	33.58
2400	-4.61	-0.93	34.61
2410	-4.68	-1.02	34.03
2420	-4.58	-0.78	34.81
2430	-4.49	-0.75	35.58
2440	-4.4	-0.62	36.29
2450	-4.22	-0.53	37.81
2460	-4.29	-0.72	37.28
2470	-4.37	-0.79	36.53
2480	-4.35	-0.74	36.69
2490	-4.29	-0.87	37.24
2500	-4.38	-0.84	36.44
2510	-4.33	-0.78	36.89

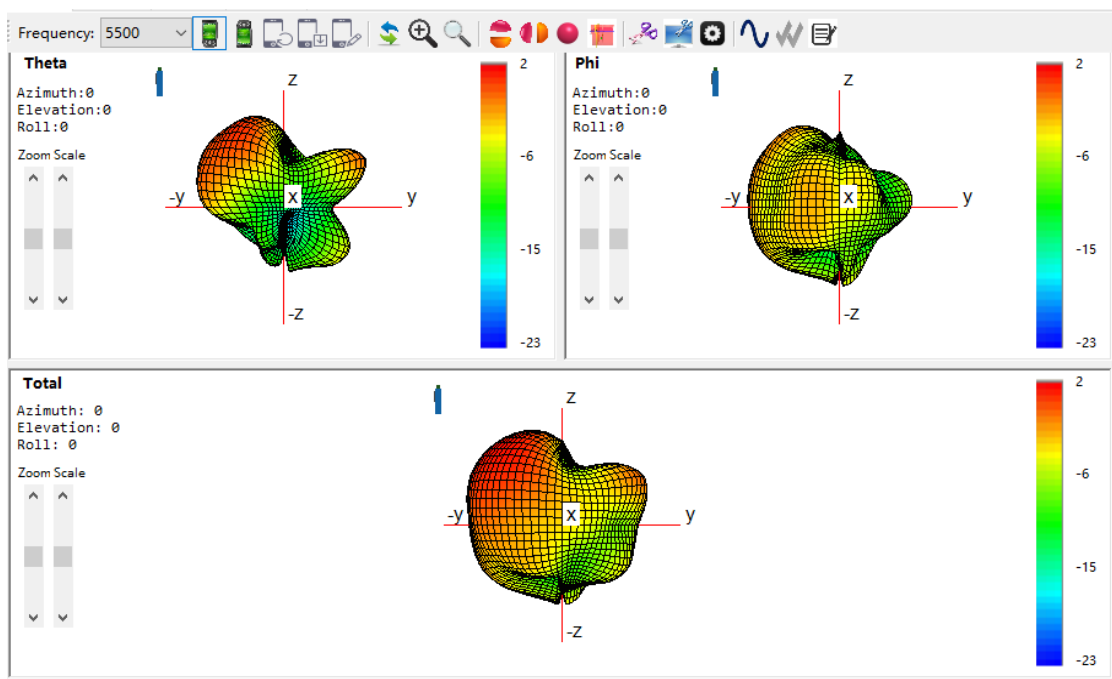
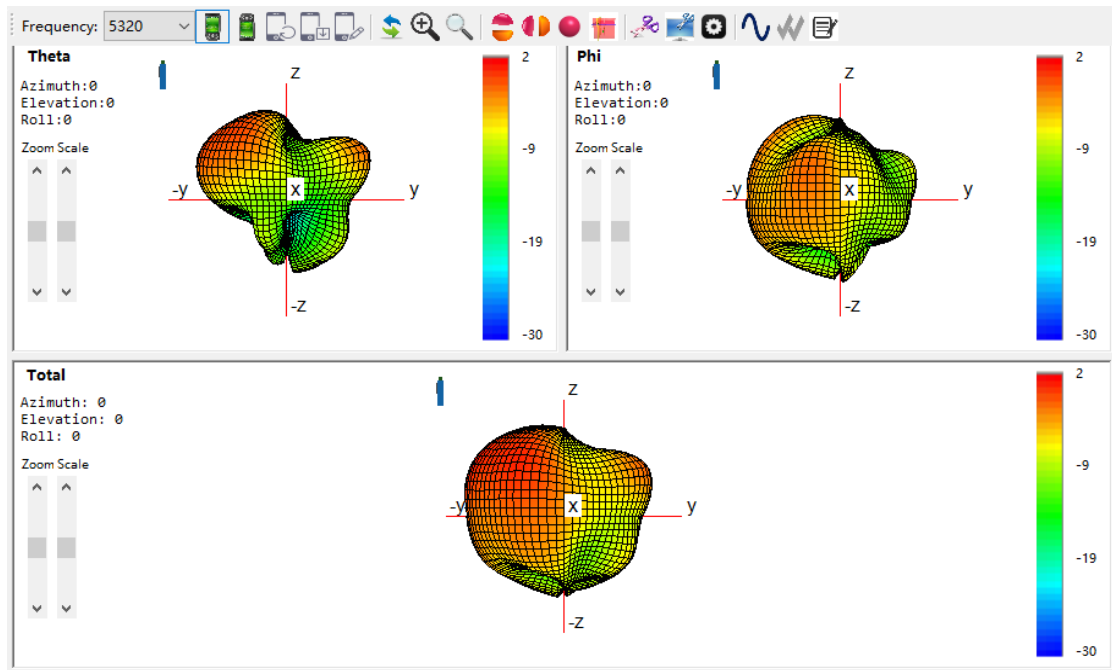
2520	-4.49	-1.03	35.58
2530	-4.75	-1.32	33.49
2540	-4.7	-1.23	33.91
2550	-4.74	-1.37	33.6

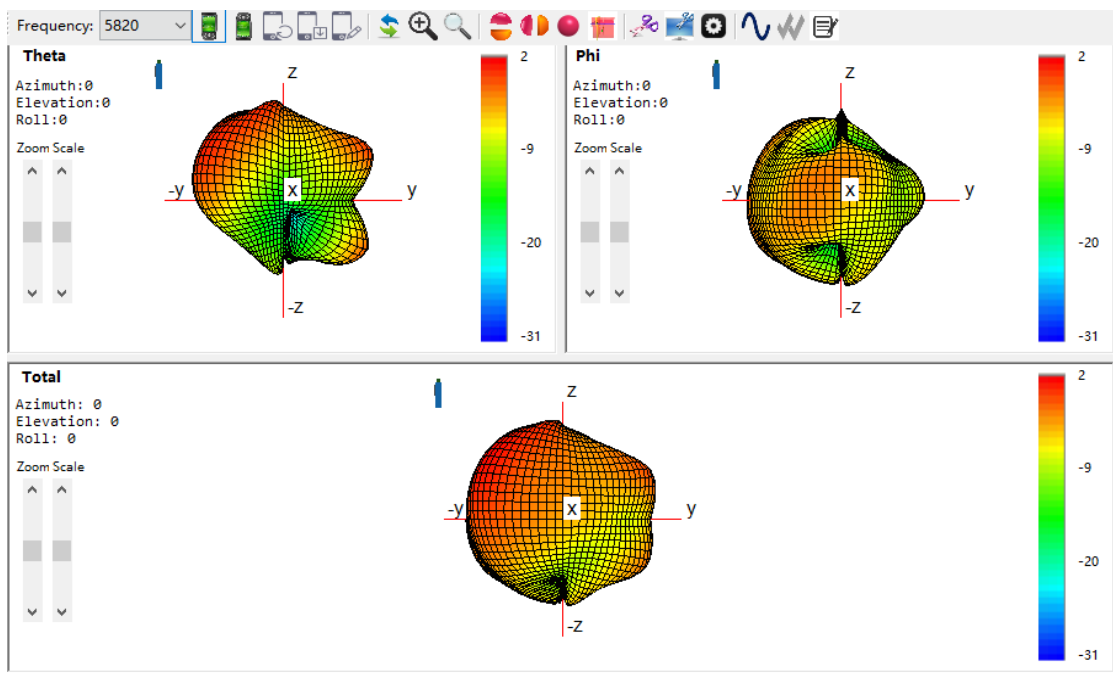
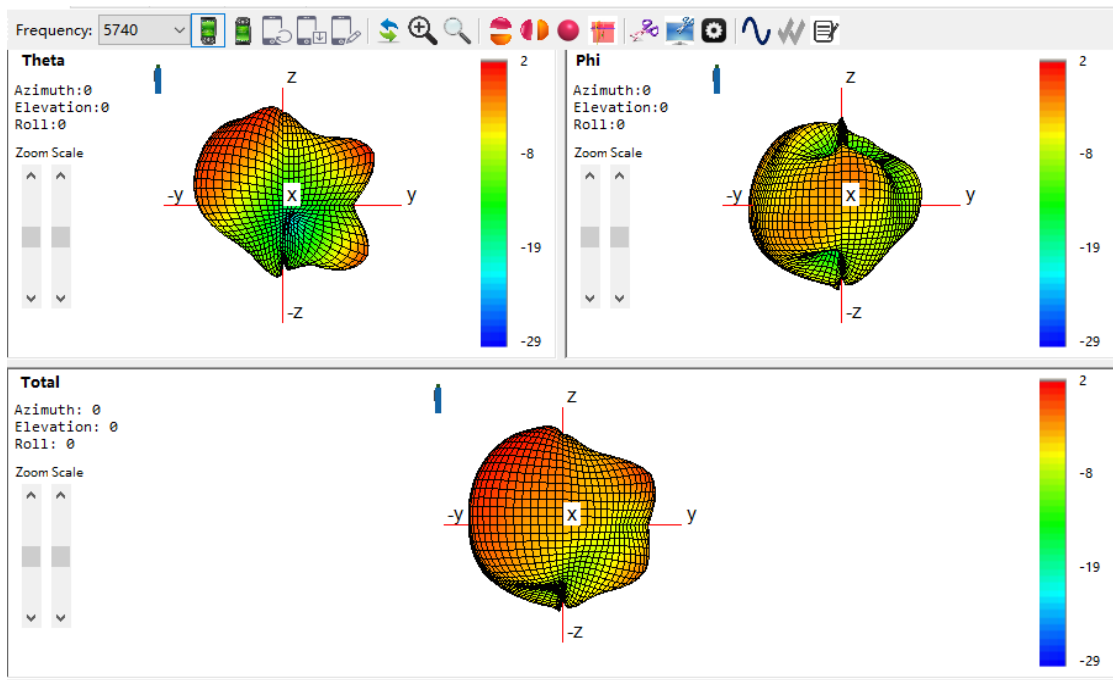
5G WIFI			
Frequency (MHz)	Ave Gain (dBi)	Peak Gain (dBi)	Effi (%)
5180	-4.9	1.19	32.37
5200	-4.59	1.25	34.73
5220	-4.32	1.74	36.94
5240	-4.26	1.72	37.46
5260	-4.3	1.86	37.18
5280	-4.01	1.88	39.75
5300	-4.08	1.59	39.08
5320	-3.91	1.87	40.61
5340	-3.92	2.13	40.54
5360	-4.02	1.91	39.63
5380	-3.44	2.5	45.26
5400	-3.5	2.41	44.65
5420	-3.54	2.22	44.24
5440	-3.65	1.99	43.1
5460	-3.84	1.56	41.31
5480	-3.73	1.11	42.37
5500	-3.41	1.42	45.63
5520	-3.46	1.6	45.12
5540	-3.6	1.51	43.61
5560	-3.72	1.26	42.45
5580	-3.42	1.75	45.53
5600	-3.4	1.38	45.74
5620	-3.2	1.73	47.86
5640	-3.33	1.34	46.5
5660	-3.32	1.58	46.51
5680	-3.32	1.59	46.54
5700	-3.23	1.41	47.57
5720	-3.09	1.58	49.14
5740	-2.98	1.4	50.33
5760	-3.15	1.35	48.37
5780	-3.1	1.82	48.92
5800	-3	2.09	50.08
5820	-2.95	1.83	50.68
5840	-2.97	2.04	50.51

Radiation pattern









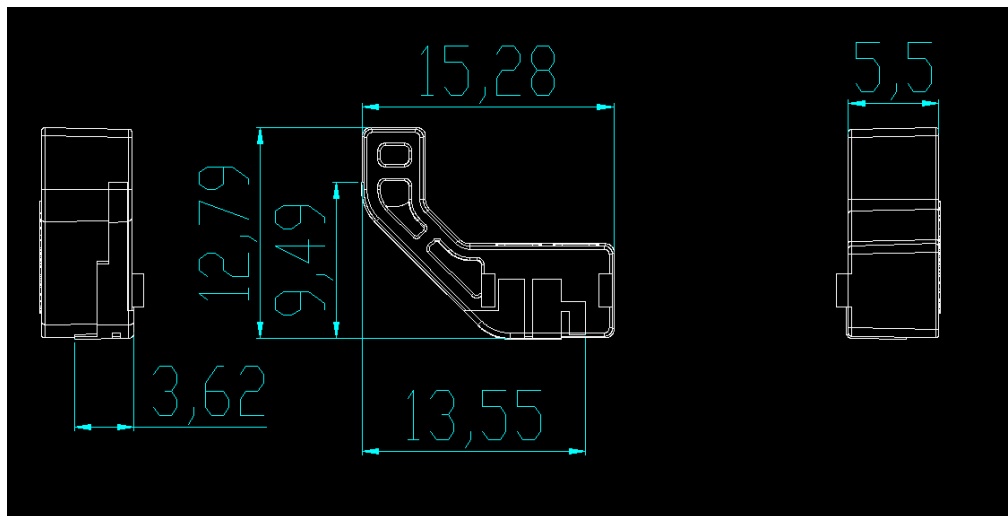
WIFI/BT OTA test data (optimizing BT antenna data)

BT		
channel	TRP	TIS
0	4.77	-85.59
39	5.01	-84.48
78	5.06	-85

Retest WIFI after optimizing BT				
		CH	TRP	TIS
2.4G	TX: 1Mbps RX: 11Mbps	1	17.97	-81.96
		7	17.7	-83.87
		13	17.45	-84.11
	TX: 6Mbps RX: 54Mbps	1	16.96	-73.98
		7	16.94	-74.93
		13	16.61	-75.11
5G	TX: 6Mbps RX: 54Mbps	36	15.31	-73.31
		64	15.01	-73.64
		149	16.05	-74.73
		165	15.66	-74.47

Photo(Unit: mm)

BLE& BT&2.4G Wi-Fi& 5G Wi-Fi Antenna 1:



2.4G Wi-Fi& 5G Wi-Fi Antenna 2:

