

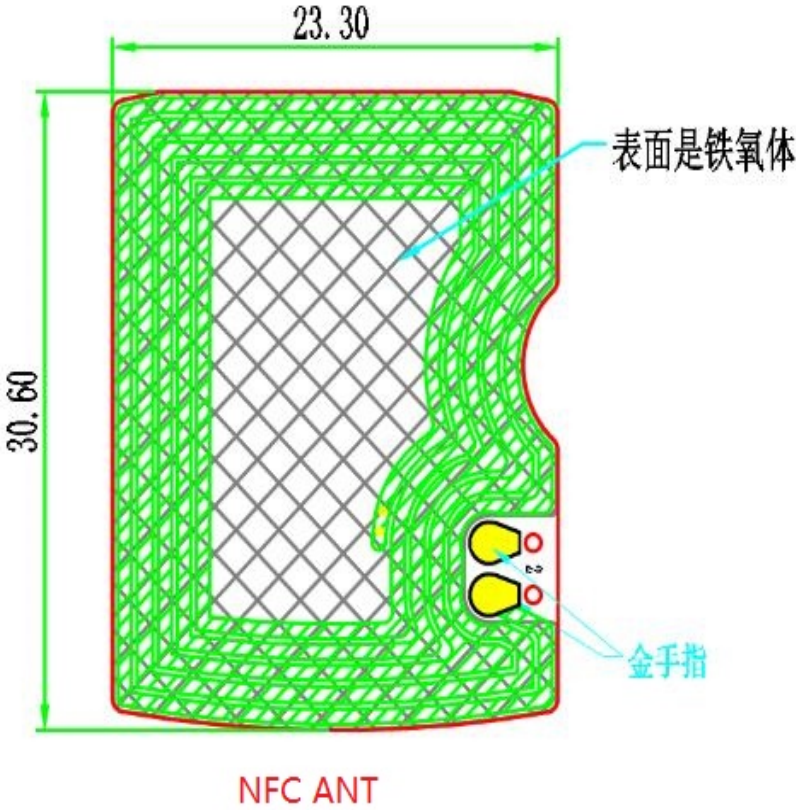
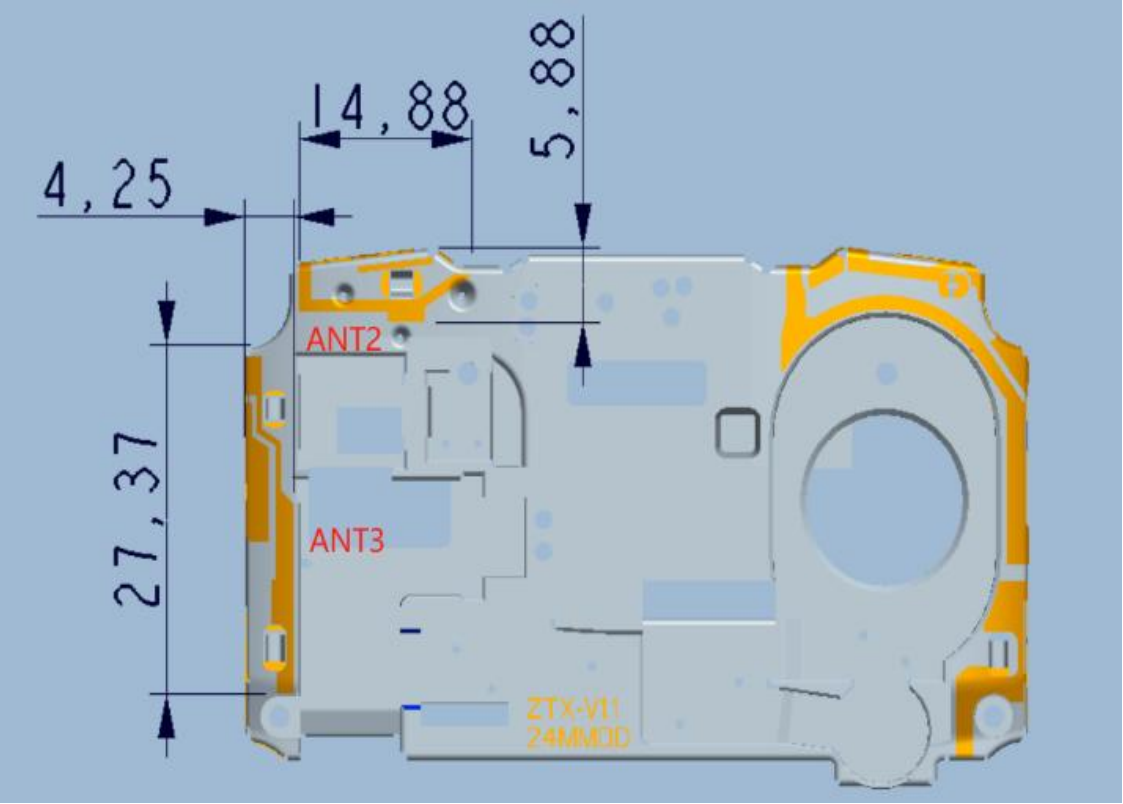
一. Antenna type

Antenna system: Internal Antenna

Antenna technology: Shenzhen ZTX Communication Technology Co., Ltd

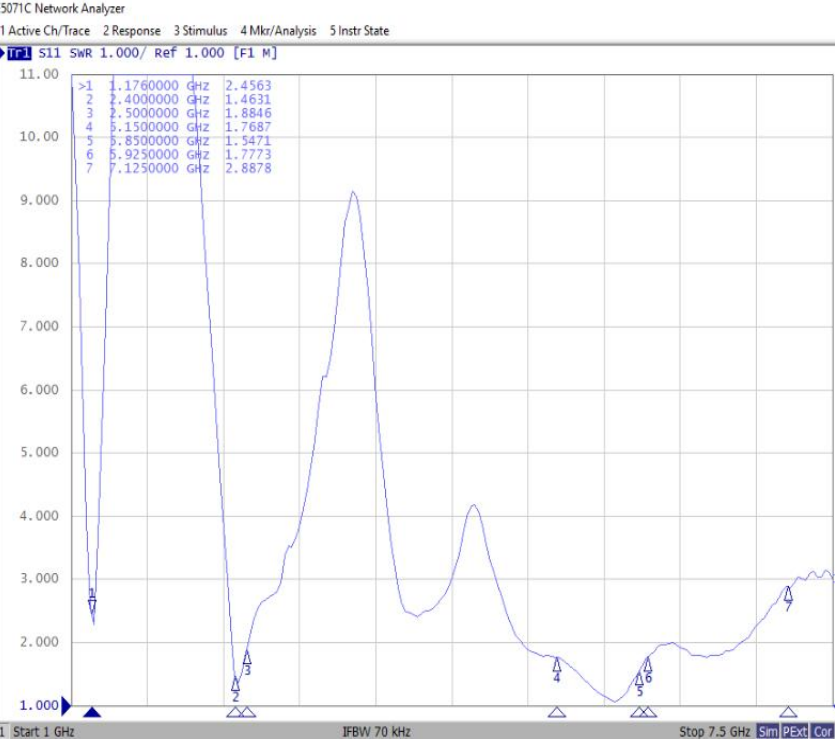
Manufacturer: ZTX

二. Antenna size diagram



ANT2

一. S11



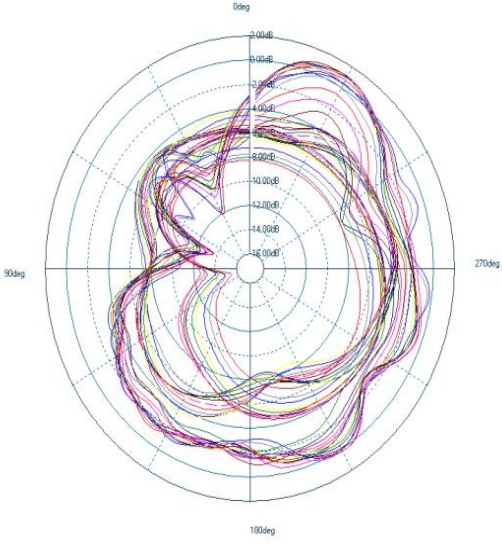
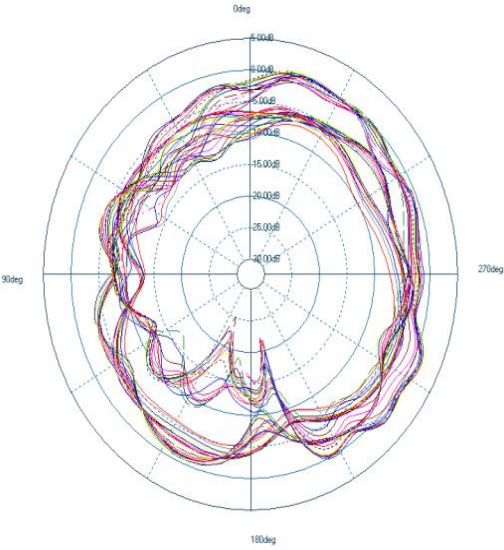
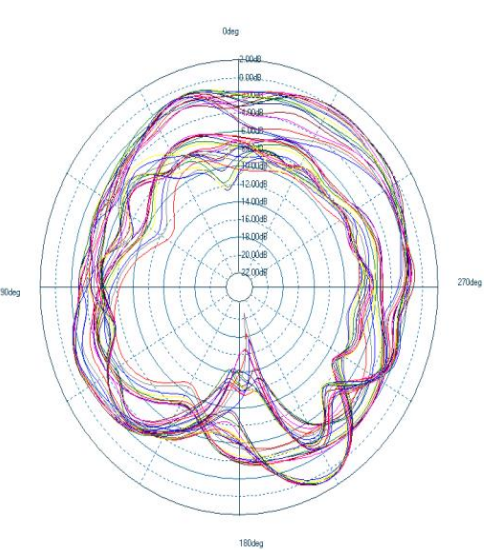
增益 (DB)	
WIFI-2.4G	1.87
WIFI-5G	1.96
WIFI-6E	3.02

YOZ

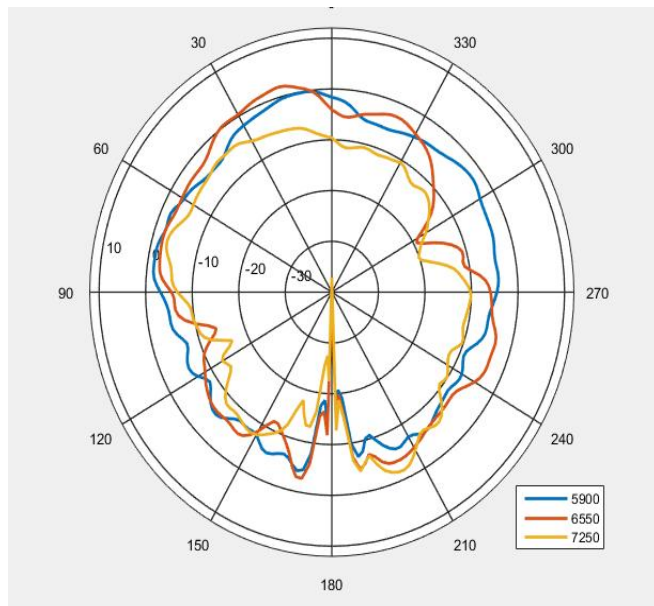
XOY

二. Antenna field diagram(2D&3D)

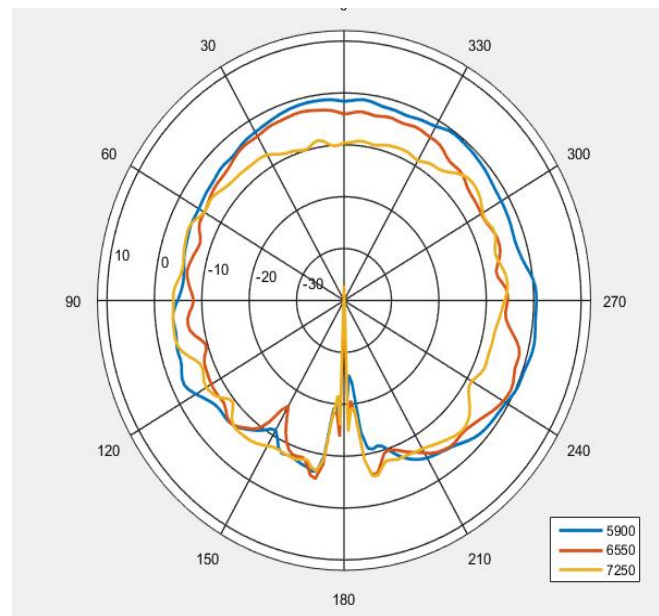
XOZ



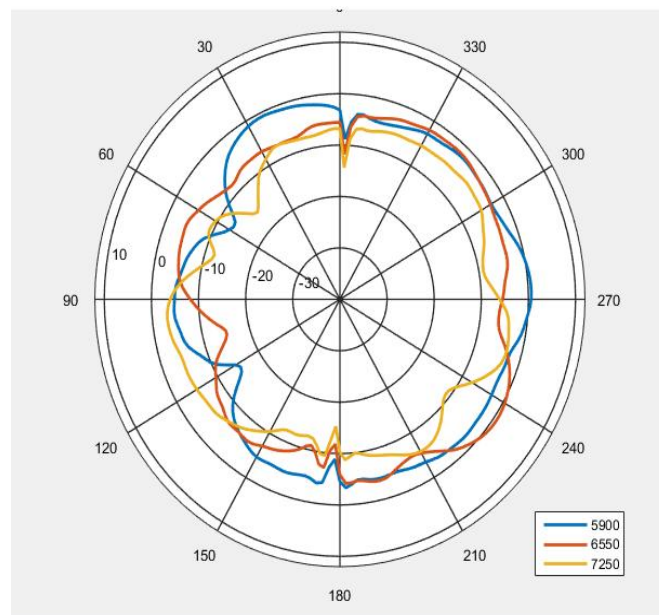
XOZ



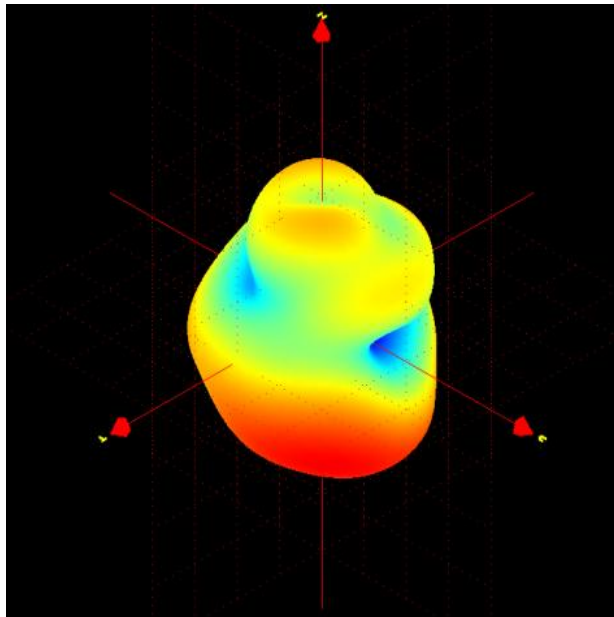
YOZ



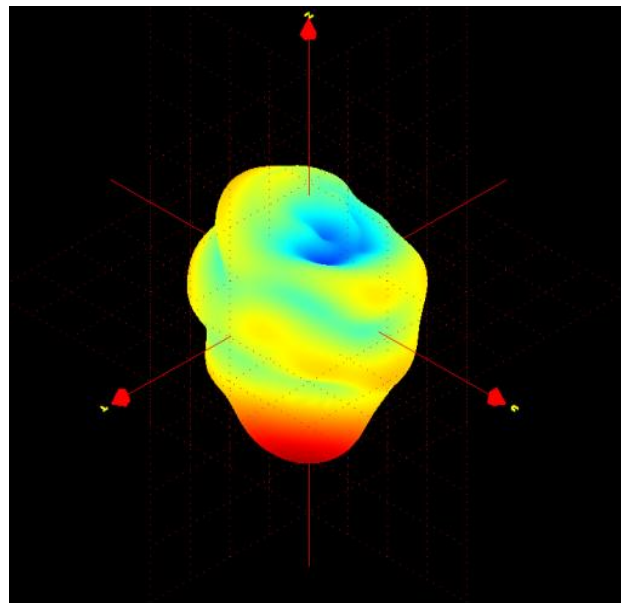
XOY



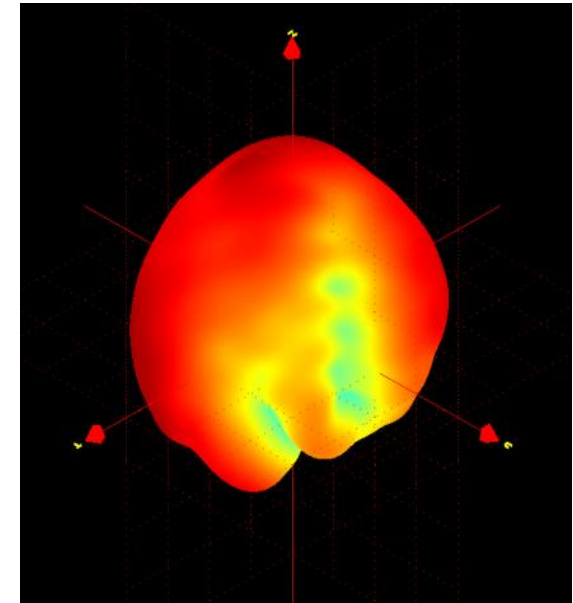
1175MHz



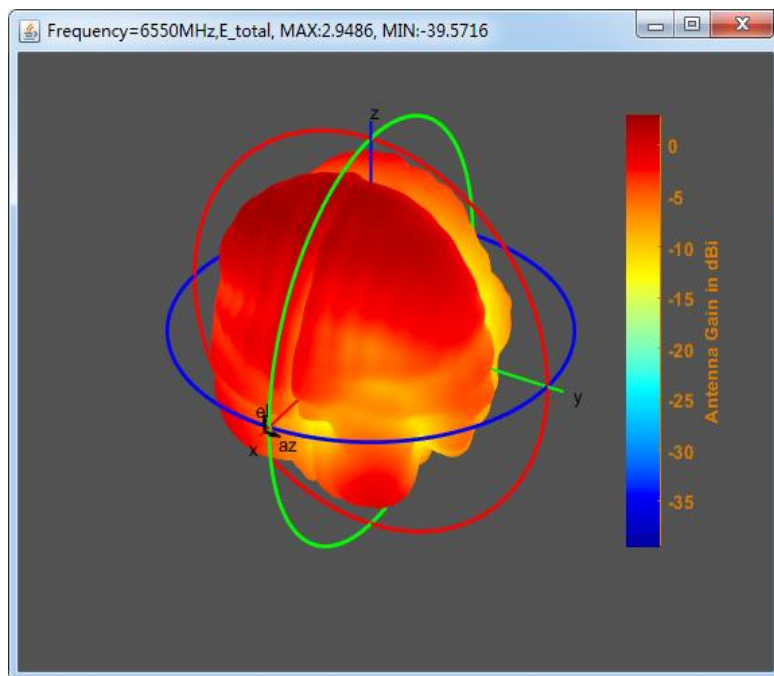
2450MHz



5550MHz



6550MHz



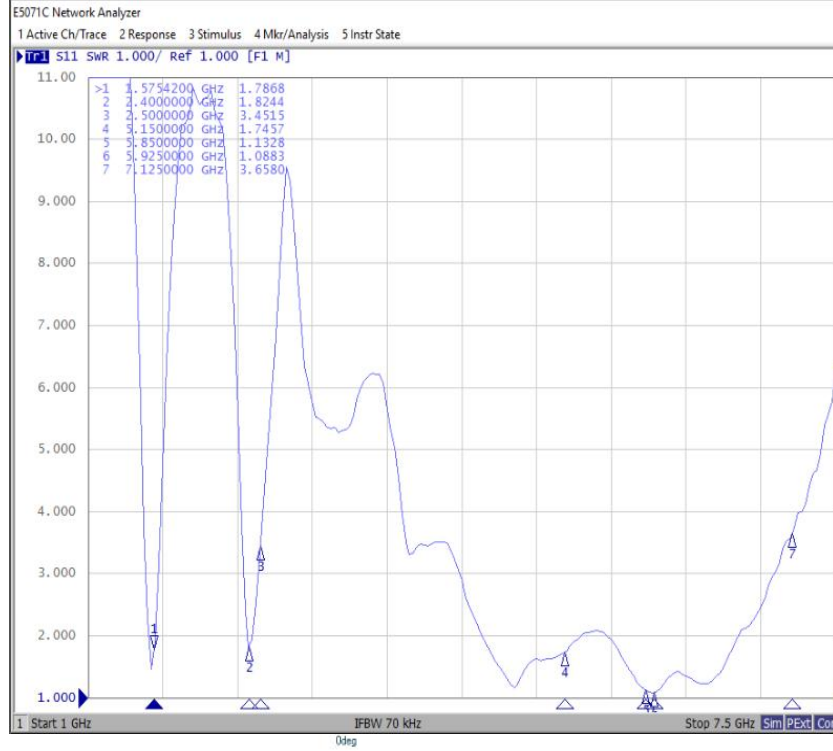
三. Antenna efficiency gain

Frequency (MHz)	Efficiency (%)	Efficiency . dB	Gain . dB
1150	17%	-7.75	-3.48
1155	20%	-7.04	-2.77
1160	22%	-6.53	-2.18
1165	26%	-5.88	-1.48
1170	27%	-5.69	-1.25
1175	30%	-5.29	-0.92
1180	29%	-5.36	-0.82
1185	30%	-5.23	-0.87
1190	27%	-5.62	-1.13
2400	31%	-5.10	1.29
2410	31%	-5.06	1.23
2420	32%	-4.95	1.37
2430	32%	-4.97	1.58
2440	32%	-4.97	1.80
2450	32%	-5.00	1.87
2460	32%	-5.00	1.83
2470	32%	-5.01	1.77
2480	31%	-5.03	1.71
2490	31%	-5.04	1.58
2500	31%	-5.06	1.33
5150	38%	-4.18	0.68
5200	39%	-4.11	0.31
5250	40%	-3.98	0.85
5300	42%	-3.76	0.94
5350	46%	-3.40	1.09
5400	49%	-3.10	1.26
5450	51%	-2.91	1.43
5500	53%	-2.77	1.96
5550	53%	-2.78	1.93
5600	51%	-2.93	1.67
5650	50%	-3.02	1.50
5700	49%	-3.07	1.55
5750	48%	-3.21	1.28
5800	47%	-3.24	1.38
5850	47%	-3.24	1.32

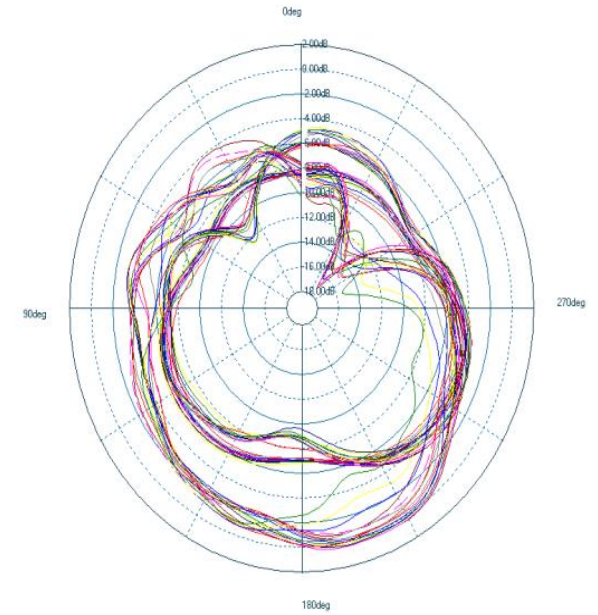
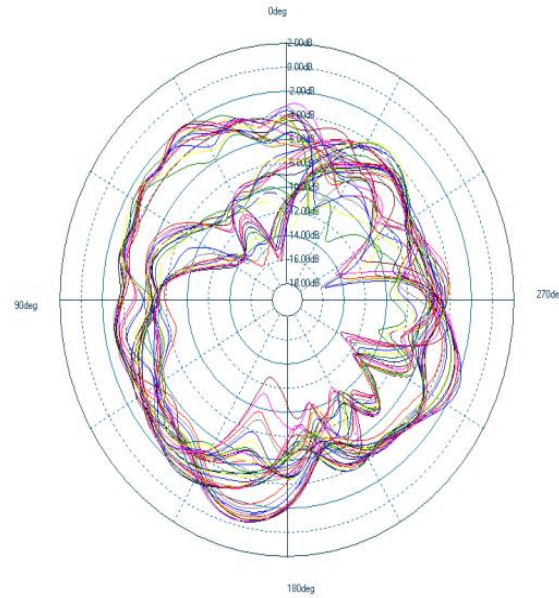
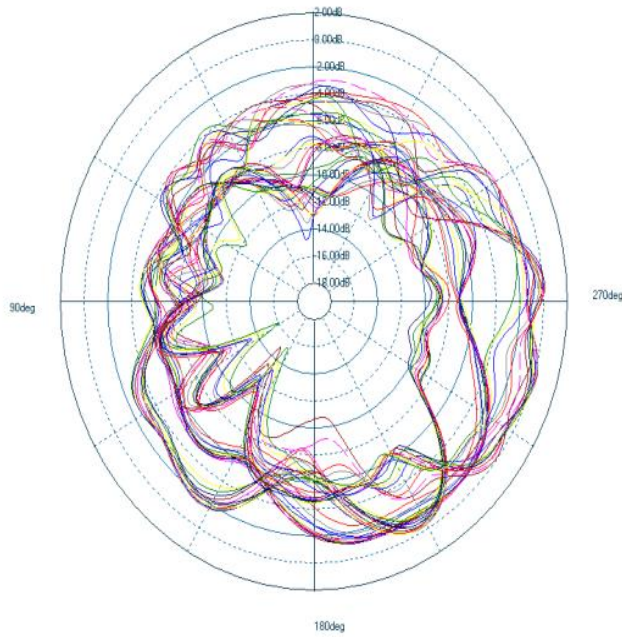
Frequency (MHz)	Efficiency (%)	Efficiency . dB	Gain . dB
5900	45%	-3.46	1.30
5950	44%	-3.61	1.42
6000	42%	-3.79	1.54
6050	38%	-4.26	1.41
6100	35%	-4.57	1.09
6150	37%	-4.33	1.22
6200	34%	-4.71	0.89
6250	38%	-4.21	1.75
6300	39%	-4.11	2.14
6350	37%	-4.32	2.23
6400	41%	-3.85	2.97
6450	39%	-4.04	2.83
6500	40%	-3.94	2.89
6550	42%	-3.75	2.95
6600	39%	-4.11	3.01
6650	42%	-3.77	3.02
6700	42%	-3.72	2.92
6750	40%	-4.03	2.44
6800	40%	-3.94	2.28
6850	36%	-4.40	2.49
6900	36%	-4.41	2.40
6950	34%	-4.65	2.82
7000	34%	-4.67	2.54
7050	32%	-5.01	2.48
7100	29%	-5.41	2.37
7150	29%	-5.35	2.22
7200	27%	-5.72	2.53
7250	26%	-5.86	2.80
7300	25%	-6.07	2.29

ANT3

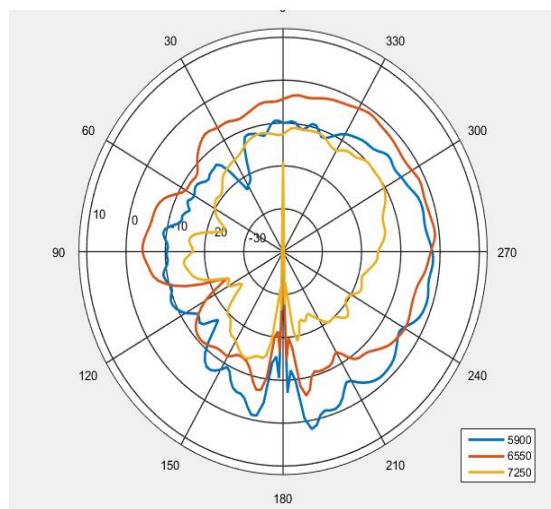
一. S11



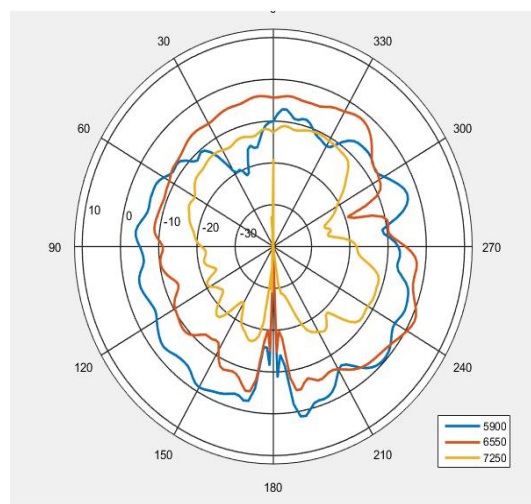
增益 (DB)	
WIFI-2.4G	0.41
WIFI-5G	1.28
WIFI-6E	3.74
BT	0.41



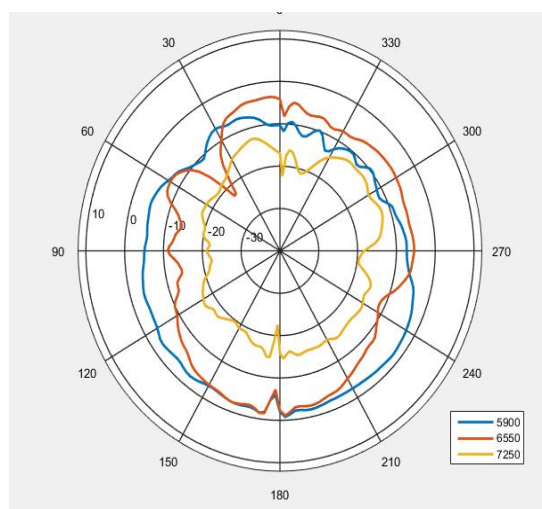
XOZ



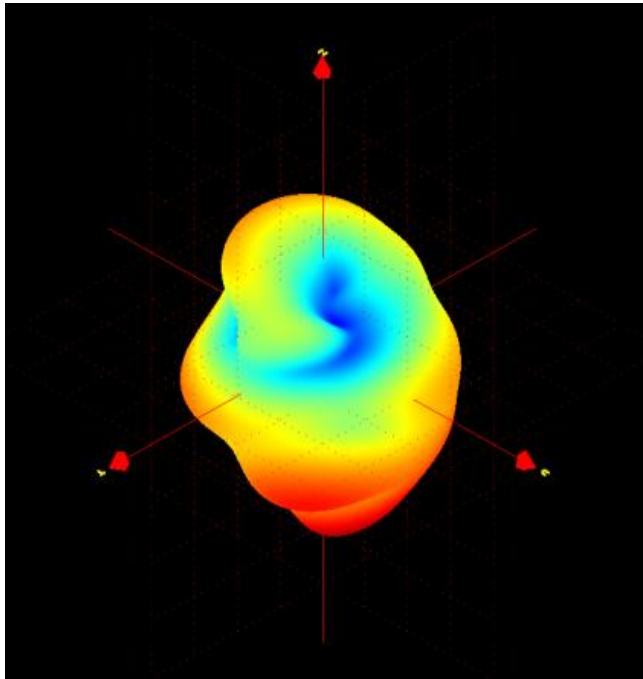
YOZ



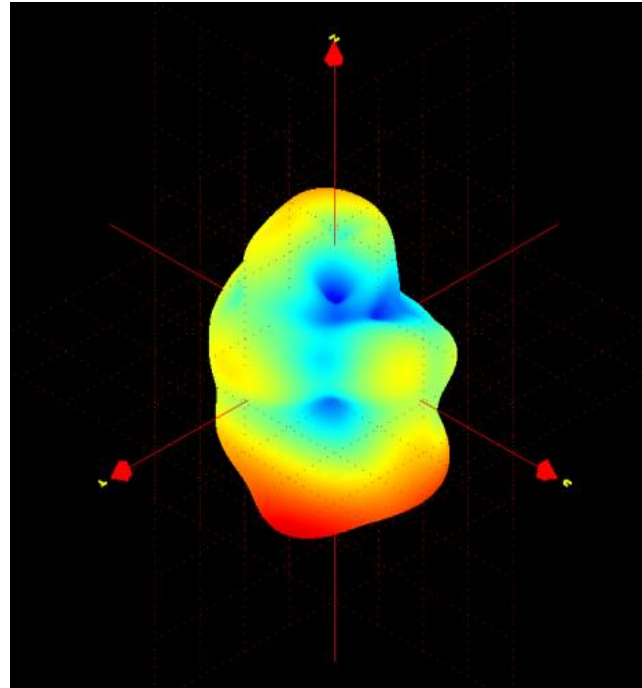
XOY



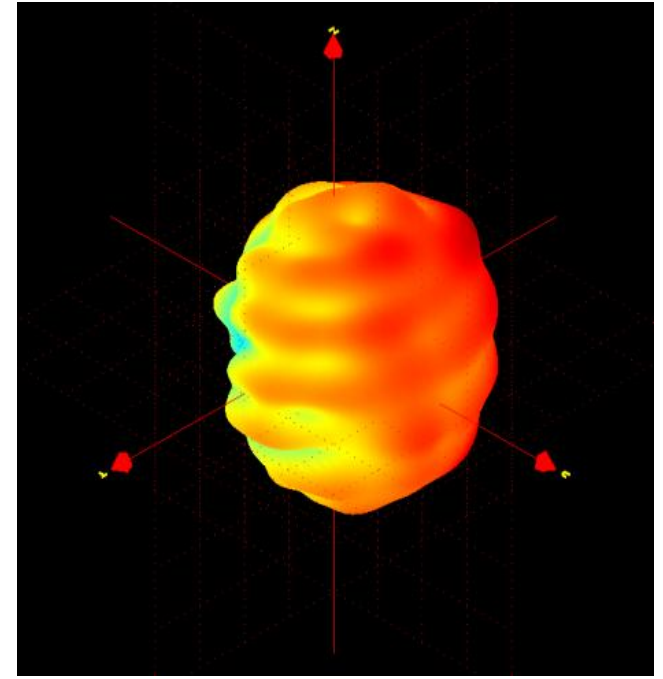
1575MHz



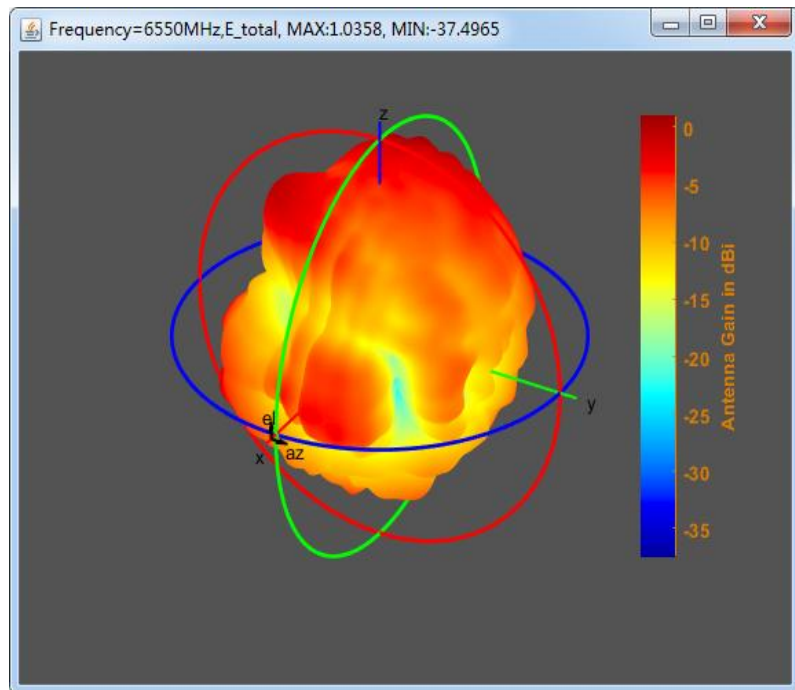
2450MHz



5550MHz



6550MHz

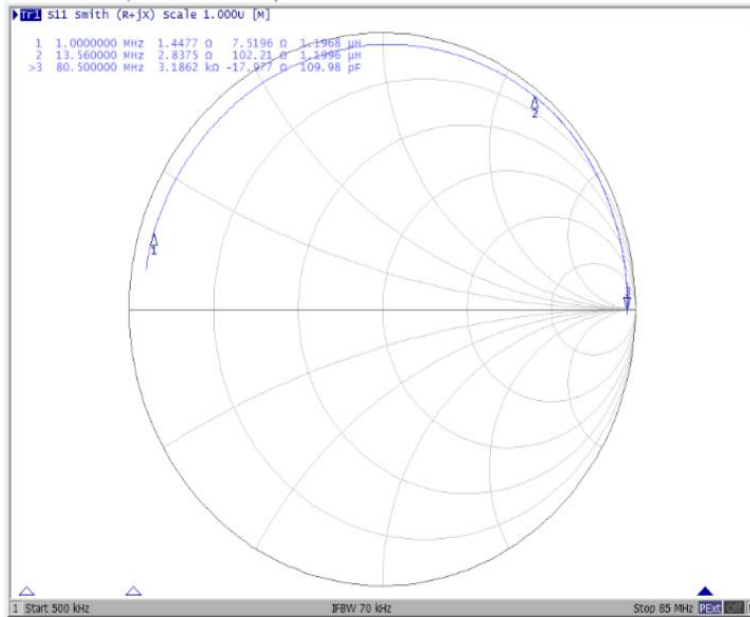


三. Antenna efficiency gain

Frequency (MHz)	Efficiency (%)	Efficiency . dB	Gain . dB
1550	31%	-5.12	-1.49
1555	32%	-4.91	-1.04
1560	33%	-4.75	-0.96
1565	35%	-4.53	-0.65
1570	35%	-4.52	-0.70
1575	36%	-4.42	-0.47
1580	36%	-4.38	-0.61
1585	37%	-4.29	-0.47
1590	37%	-4.33	-0.67
1595	37%	-4.32	-0.79
1600	38%	-4.25	-0.81
2400	25%	-6.10	-0.53
2410	26%	-5.83	-0.32
2420	27%	-5.63	-0.10
2430	28%	-5.56	0.13
2440	28%	-5.50	0.34
2450	28%	-5.46	0.41
2460	29%	-5.44	0.36
2470	28%	-5.52	0.22
2480	28%	-5.56	0.16
2490	26%	-5.77	-0.04
2500	26%	-5.91	-0.26
5150	35%	-4.53	0.91
5200	36%	-4.42	1.20
5250	36%	-4.44	1.28
5300	36%	-4.45	1.12
5350	36%	-4.46	1.08
5400	37%	-4.30	0.74
5450	37%	-4.30	0.68
5500	38%	-4.19	0.59
5550	39%	-4.14	0.68
5600	37%	-4.33	0.54
5650	36%	-4.46	0.07
5700	33%	-4.75	-0.41
5750	31%	-5.13	-0.67
5800	28%	-5.55	-0.80
5850	25%	-6.02	-1.05

Frequency (MHz)	Efficiency (%)	Efficiency . dB	Gain . dB
5900	27%	-5.67	2.56
5950	26%	-5.83	2.83
6000	26%	-5.90	2.71
6050	23%	-6.44	2.43
6100	23%	-6.41	2.14
6150	24%	-6.20	2.03
6200	23%	-6.36	1.70
6250	29%	-5.44	3.12
6300	29%	-5.44	3.26
6350	28%	-5.48	3.23
6400	29%	-5.38	3.36
6450	27%	-5.72	2.71
6500	24%	-6.13	2.98
6550	24%	-6.27	3.04
6600	21%	-6.86	2.00
6650	19%	-7.26	2.22
6700	18%	-7.42	2.65
6750	16%	-7.87	1.04
6800	26%	-5.91	1.53
6850	25%	-6.07	1.46
6900	20%	-6.93	2.09
6950	19%	-7.19	3.74
7000	17%	-7.61	2.69
7050	16%	-8.07	1.84
7100	15%	-8.20	1.74
7150	14%	-8.53	1.33
7200	14%	-8.58	1.23
7250	13%	-8.78	1.92
7300	13%	-8.81	1.63

天线无源参数



$R_s(\Omega)$	1.4
$L_a(\mu H)$	1.2
$R_p(k\Omega)$	3.2
F_{ra} (MHz)	80.5
Q	36

天线匹配后参数

