SPECIFICATION

SHEET FOR APPROVAL

（Revision：R：A1）

	CUSTOMER	Guangzhou TongKangwei Intelligent Technology Co., LTD	
	CS P/N	M30S-W	
	PART NAME	(WIFI version) Antenna	
	FREQUENCY	2400~2500MHz	
	ZTX NO.	2.00005095	
	DATE	2022-02-23	

CUSTOMER			
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED

Remark：

Sign：_____

Shenzhen ZTX Communication Technology Co., Ltd				
MANAGER CHECKED	MANAGER CHECKED	ME CHECKED	RF CHECKED	LISTER
		Zou Yilin	Xiong Hao	

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Revision history

NO	date	The first edition
A1	2022-02-23	state

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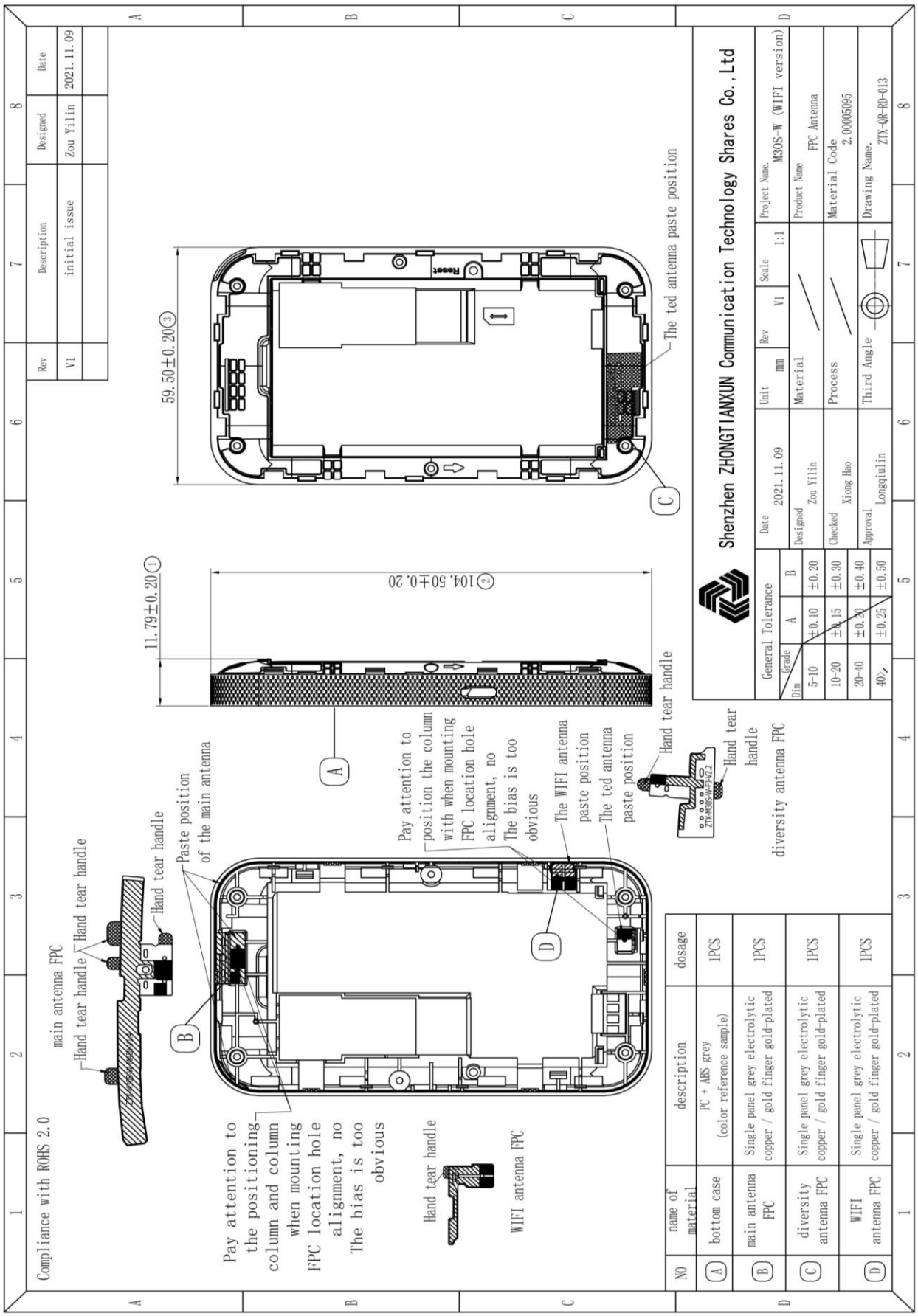
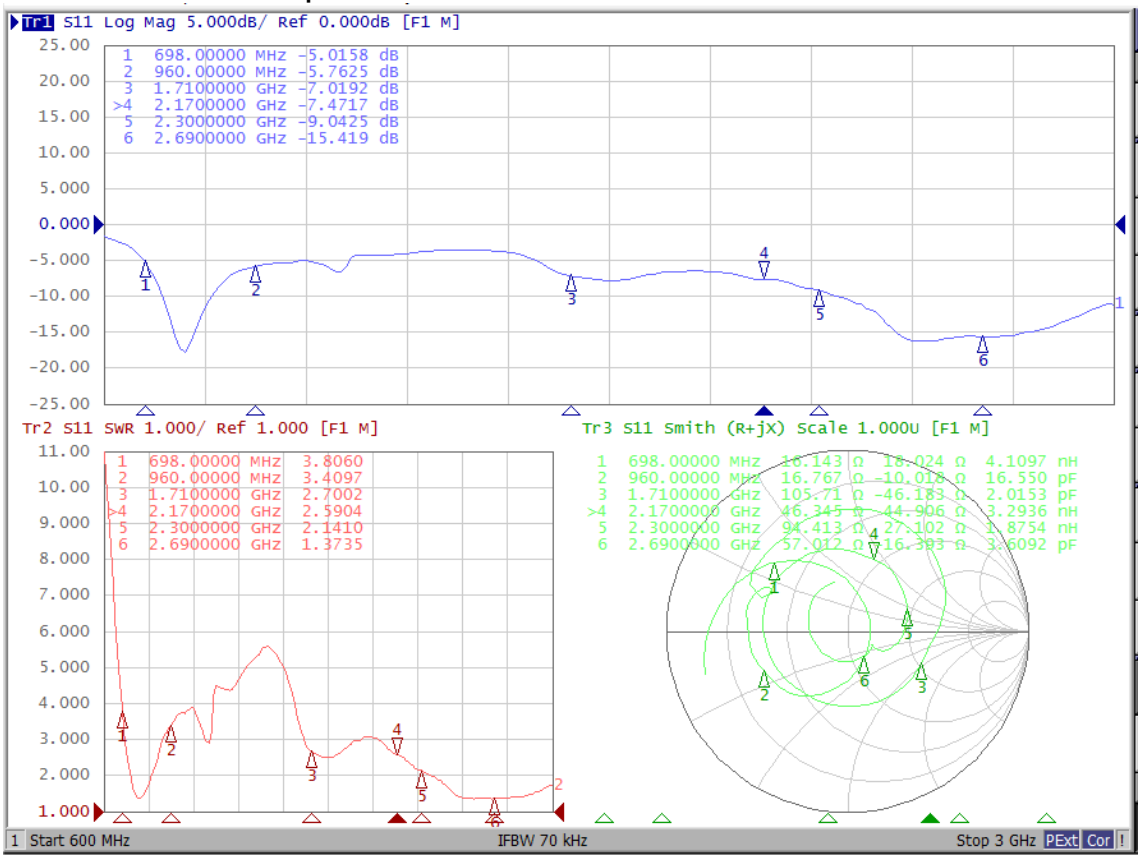
1. Mechanical Specification

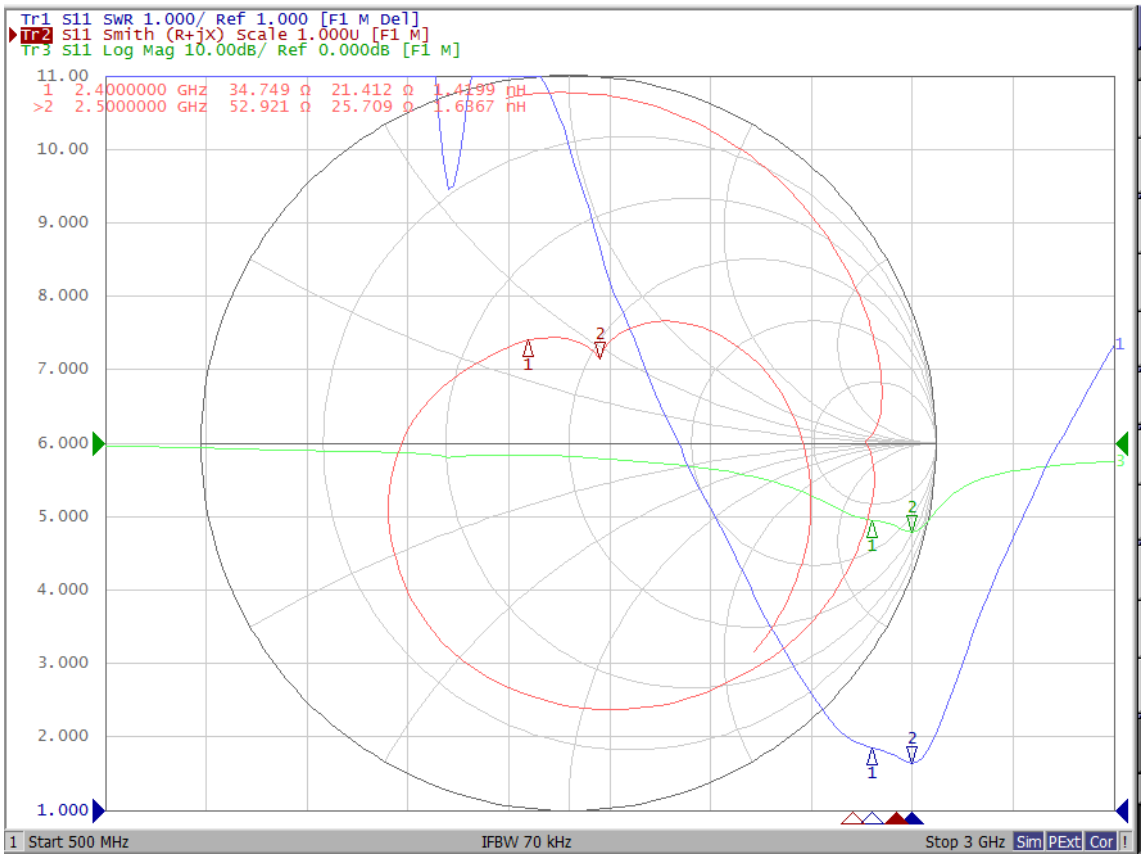
1-1 Mechanical Configuration（(WIFI version) Antenna）



2.Antenna test data

2-1 VSWR&Return loss plot&Smith Chart





2-2 No-source test data

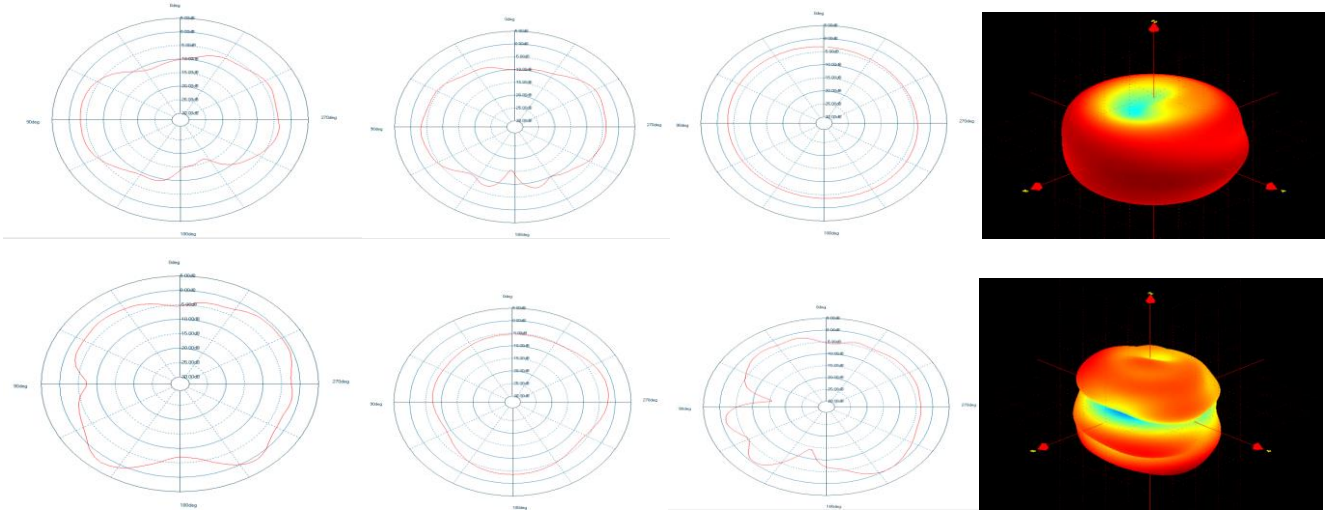
Frequency	Efficiency	Efficiency .	Gain . dBi
698000000	21%	-6.71	-1.88
699000000	21%	-6.81	-1.48
700000000	21%	-6.85	-1.65
710000000	22%	-6.60	-1.18
720000000	25%	-5.97	-1.10
730000000	29%	-5.45	-1.37
740000000	33%	-4.80	-1.11
750000000	36%	-4.38	-1.04
760000000	38%	-4.16	-1.16
770000000	40%	-3.93	-0.45
780000000	41%	-3.85	-0.45
791000000	44%	-3.56	-0.54
800000000	46%	-3.34	-0.60
810000000	49%	-3.11	-0.55
820000000	49%	-3.11	-0.64
824000000	50%	-2.98	-0.27
830000000	45%	-3.42	-0.67
840000000	46%	-3.37	-0.84
850000000	44%	-3.56	-0.88
860000000	44%	-3.53	-0.12
870000000	43%	-3.63	-0.17
880000000	42%	-3.79	-0.21
890000000	43%	-3.67	-0.21
894000000	43%	-3.69	-0.02
900000000	43%	-3.70	-0.09
910000000	44%	-3.56	-0.32
920000000	42%	-3.73	-0.31
930000000	44%	-3.58	-0.06
940000000	45%	-3.44	0.64
950000000	46%	-3.34	0.55
960000000	45%	-3.47	0.14

Frequency	Efficienc	Efficiency	Gain . dBi
1.71E+09	57%	-2.41	2.65
1.73E+09	60%	-2.25	2.22
1.75E+09	63%	-1.99	1.49
1.77E+09	60%	-2.19	1.75
1.79E+09	62%	-2.06	1.53
1.81E+09	56%	-2.50	1.86
1.83E+09	55%	-2.63	1.39
1.85E+09	52%	-2.84	1.63
1.87E+09	53%	-2.78	1.57
1.89E+09	52%	-2.87	1.31
1.91E+09	49%	-3.09	1.23
1.93E+09	49%	-3.13	1.33
1.95E+09	47%	-3.28	1.74
1.97E+09	46%	-3.40	1.80
1.99E+09	44%	-3.57	1.79
2.01E+09	42%	-3.74	2.34
2.03E+09	44%	-3.61	2.32
2.05E+09	44%	-3.57	2.15
2.07E+09	43%	-3.68	2.27
2.09E+09	46%	-3.39	2.27
2.11E+09	46%	-3.33	1.74
2.13E+09	43%	-3.62	2.17
2.15E+09	46%	-3.34	2.04
2.17E+09	46%	-3.34	1.99
2.19E+09	49%	-3.08	2.38
2.21E+09	48%	-3.17	2.72
2.23E+09	52%	-2.83	1.96
2.25E+09	53%	-2.77	2.61
2.27E+09	54%	-2.68	2.46

Frequency	Efficienc	Efficiency	Gain . dBi
2290000000	54%	-2.72	2.07
2310000000	55%	-2.58	2.18
2330000000	57%	-2.42	2.55
2350000000	60%	-2.19	2.59
2370000000	64%	-1.93	2.82
2390000000	62%	-2.05	1.96
2410000000	64%	-1.95	2.65
2430000000	66%	-1.79	2.31
2450000000	67%	-1.71	2.65
2470000000	65%	-1.87	2.54
2490000000	66%	-1.79	2.73
2510000000	64%	-1.95	2.73
2530000000	64%	-1.96	2.67
2550000000	63%	-2.01	2.83
2570000000	66%	-1.79	2.71
2590000000	65%	-1.89	3.10
2610000000	63%	-2.02	2.93
2630000000	62%	-2.10	2.89
2650000000	60%	-2.22	2.73
2670000000	57%	-2.45	2.97
2690000000	55%	-2.62	2.67

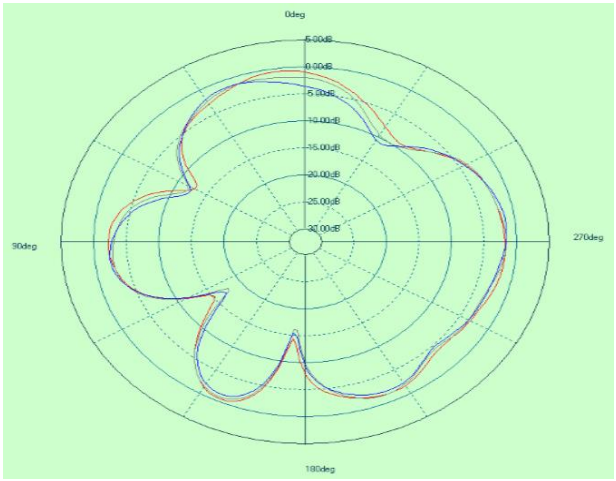
B1	18050	19.14	-94.56
	18300	19.98	-94.18
	18550	19.92	-95.01
B2	18650	20.58	-94.11
	18900	19.1	-95.09
	19150	19.25	-95.23
B3	19250	19.86	-94.23
	19570	19.0	-94.11
	19900	19.09	-94.94
B4	20000	17.84	-94.22
	20175	18.39	-94.32
	20350	17.12	-94.15
B5	20450	18.78	-91.52
	20525	18.32	-91.66
	20600	18.74	-91.88
B7	20800	19.87	-93.25
	21100	19.58	-93.65
	21400	19.65	-93.21

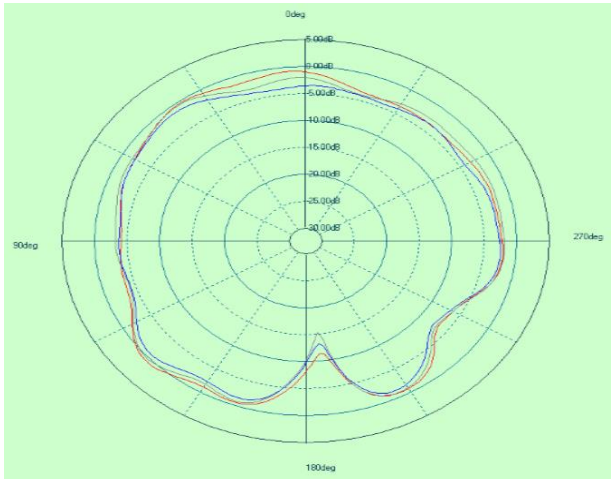
B8	21500	19.36	-92.13
	21625	18.42	-91.67
	21750	18.76	-92.11
B28	27260	17.95	-93.49
	27435	17.18	-92.79
	27610	19.15	-91.22
B38	37850	20.93	-92.13
	38000	20.46	-92.53
	38150	21.31	-93.34
B40	38750	18.76	-92.89
	39150	19.77	-91.72
	39550	19.92	-91.63
B41	40290	20.18	-91.81
	40540	20.44	-92.73
	41100	22.2	-92.21

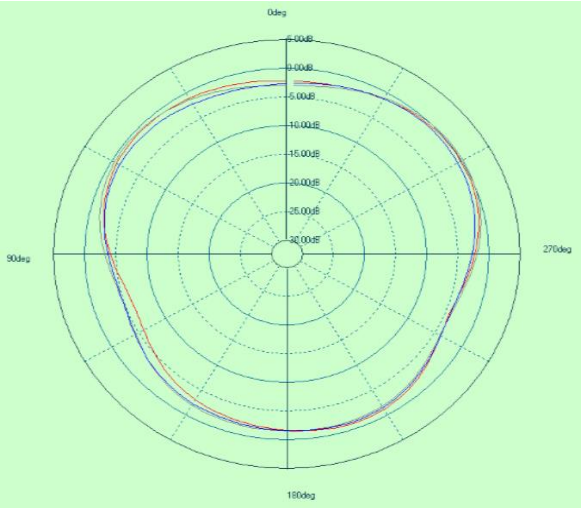


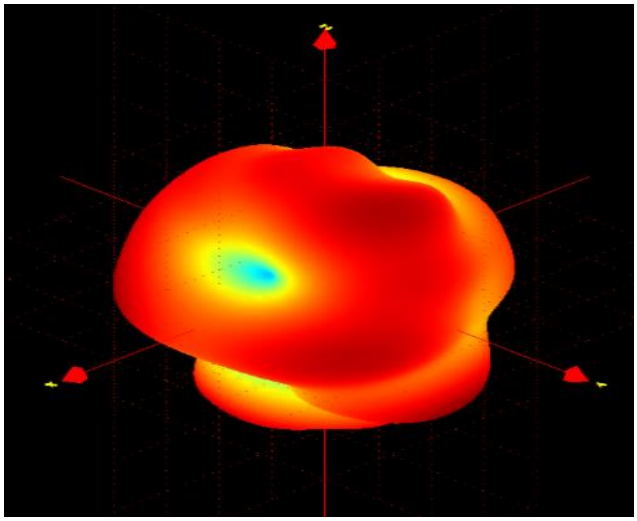
WIFI No-source test data

Frequency	Efficienc	Efficiency . dB	Frequency	Gain . dB
2400000000	46%	-3.37	2400000000	1.05
2410000000	45%	-3.46	2410000000	0.44
2420000000	47%	-3.30	2420000000	0.51
2430000000	50%	-3.03	2430000000	1.07
2440000000	49%	-3.07	2440000000	1.17
2450000000	50%	-3.03	2450000000	1.08
2460000000	45%	-3.47	2460000000	0.75
2470000000	48%	-3.15	2470000000	0.85
2480000000	47%	-3.30	2480000000	0.57
2490000000	45%	-3.46	2490000000	0.36
2500000000	45%	-3.48	2500000000	0.51

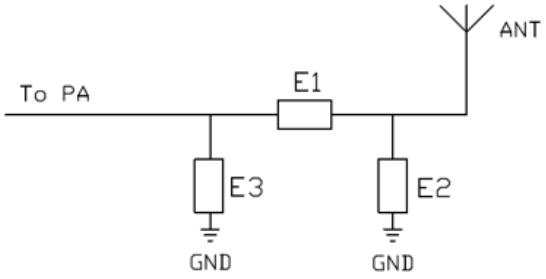








2-3 Matching circuit



Matching instructions	main antenna	diversity Antenna	WIFI Antenna
E1	6.8pF	0Ω	0Ω
E2	5.6nH	0.5pF	NC
E3	NC	NC	NC

2-4 Environment treatment

N/A

3.Environment Characteristic

NO.	ITEM	TEST CONDITION	SPECIFICATION
3-1	High Temperature/Humidity Storage Test(non operating)	1.Temperature: +70 ±2℃ 2.Humidity: 90~95%RH 3.Time: 48hrs	No material deformation is allowed.
3-2	Low Temperature/Humidity Storage Test(non operating)	1.Temperature: -30±2℃ 2.Humidity: 0%RH 3.Time:48hrs	The VSWR, Gain, Radiation Pattern must be met specifications after these test.