



晟天科技



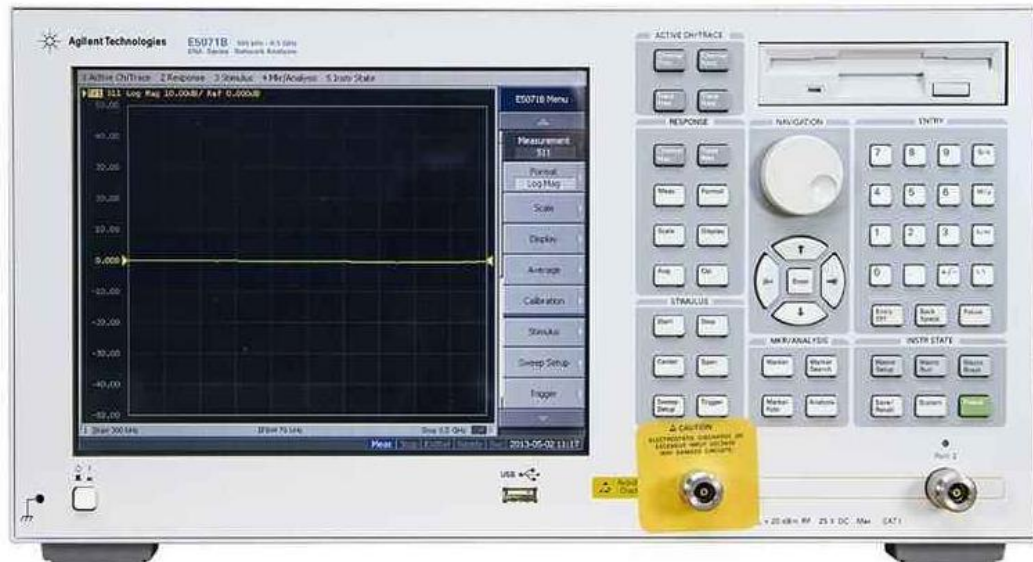
Sunsky Technology Co., Ltd

ANTENNA TEST REPORT

Customer		Operating Frequency	Lte
RF Engineer	Lin Guofu	Structural Engineer	Huang Hao
Date	2023.12.15	Material	FPC+Coaxial Cable

TEST EQUIPMENT

E5071C network analyzer

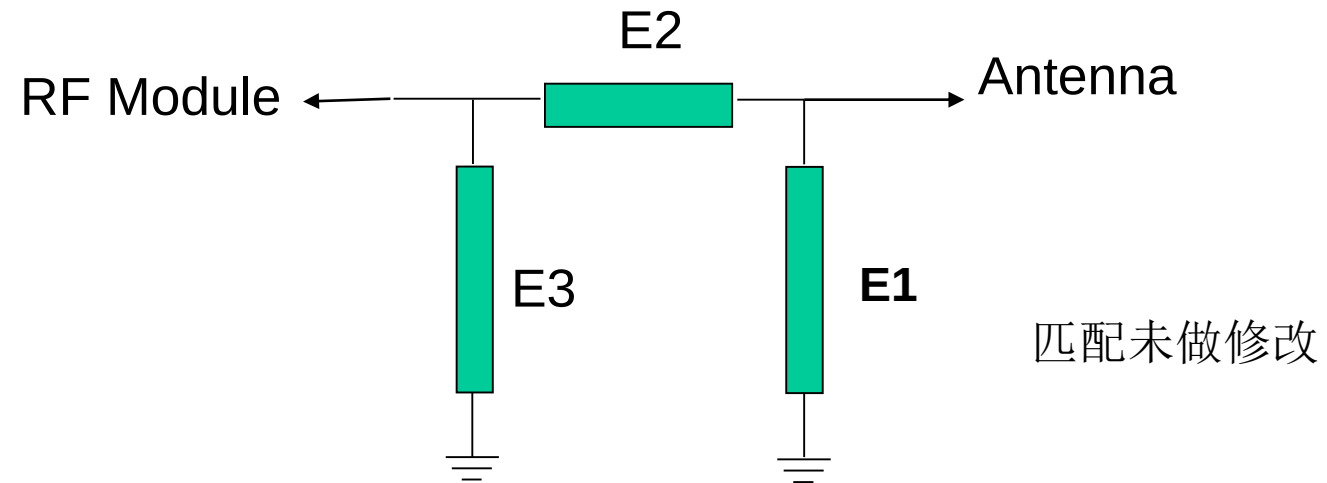


7*4*3M chamber



ANTENNA-MATCH

Element	E1(0402)	E2(0402)	E3(0402)
Value	NONE	0欧姆	NONE



PROTOTYPE PICTURE



MAIN ANTENNA S11 AND PASSIVE TEST DATA



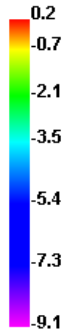
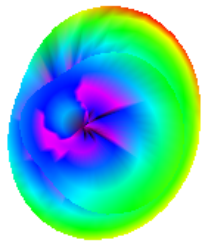
Freq (MHz)	Effi (%)	Gain (dBi)
800	33.5	-0.03
810	35.04	-0.2
820	36.44	-0.67
830	39.02	-0.88
840	39.01	-1.19
850	40.91	-0.8
860	40.79	-0.51
870	40.62	-0.25
880	41.87	0.23
890	42.32	0.6
900	43.09	0.96
910	40.96	0.88
920	40.78	0.91
930	34.38	0.04
940	30.1	-0.72
950	27.37	-1.38
960	24.66	-1.86

Freq (MHz)	Effi (%)	Gain (dBi)
1700	47.26	2.83
1720	53.57	3.51
1740	55.71	3.56
1760	58.6	3.48
1780	62.21	3.58
1800	59.53	3.34
1820	59.75	3.21
1840	52.75	2.64
1860	54.13	2.83
1880	52.19	2.68
1900	49.78	2.14
1920	49.49	1.51
1940	50.14	1.3
1960	49.56	1.26
1980	47.25	0.98
2000	47.84	1.26
2020	48.26	1.43
2040	47.59	1.55
2060	50.67	2.02
2080	55.62	2.77
2100	55.24	3.13
2120	49.12	2.52
2140	45.9	2.16
2160	47.14	2.5
2180	45.91	2.54

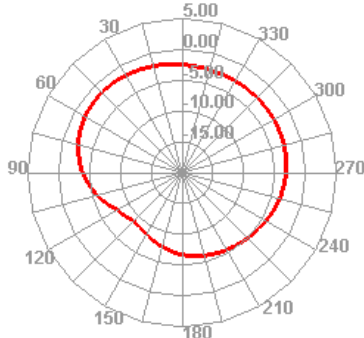
Freq (MHz)	Effi (%)	Gain (dBi)
2300	43.47	1.29
2320	47.41	2.34
2340	50.29	2.66
2360	46.97	1.94
2380	46.47	1.71
2400	41.94	1.24
2420	41.16	0.99
2440	42.19	1.03
2460	44.35	1.28
2480	42.99	1.25
2500	47.4	1.74
2520	41.81	1.03
2540	43.73	1.05
2560	39.26	0.51
2580	43.25	0.85
2600	43.62	0.88
2620	45.66	1.18
2640	43.5	0.92
2660	45.99	0.99
2680	48.3	1.4
2700	45.7	1.39

MAIN ANTENNA 2/3D TEST PATTERN

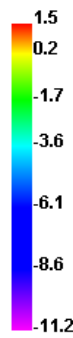
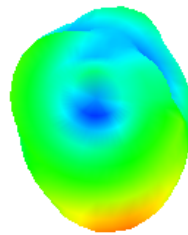
880.000MHz



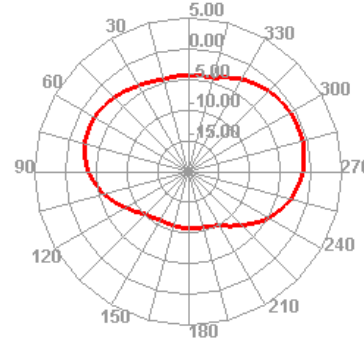
880.000MHz H



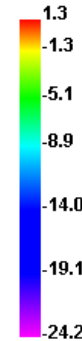
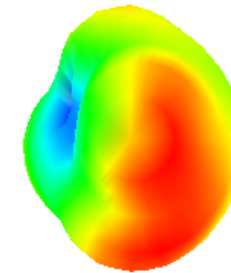
1920.000MHz



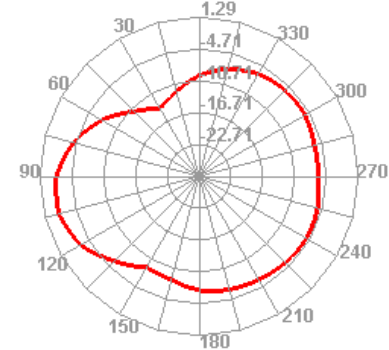
1920.000MHz H



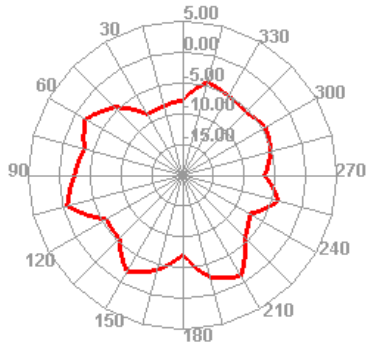
2300.000MHz



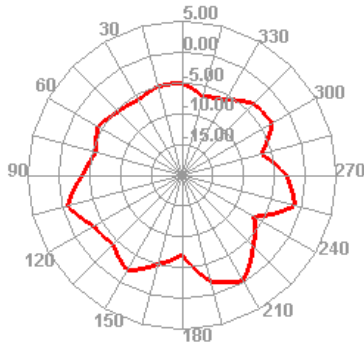
2300.000MHz H



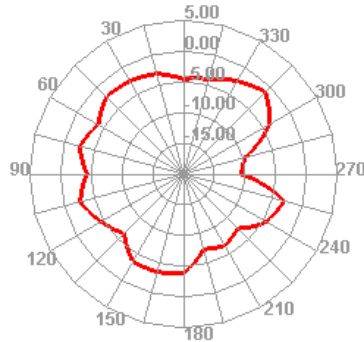
880.000MHz E1



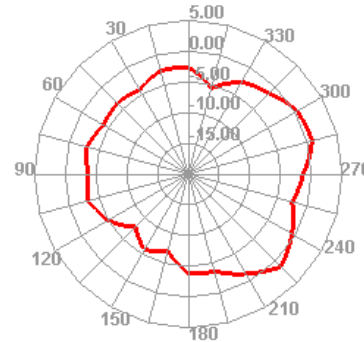
880.000MHz E2



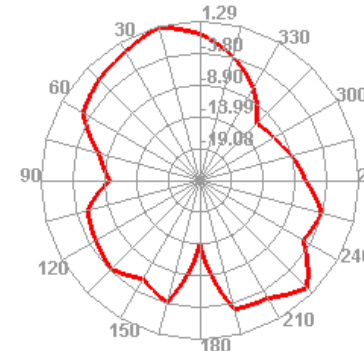
1920.000MHz E1



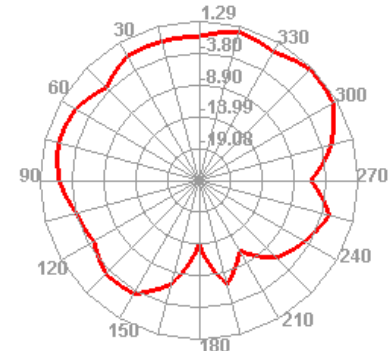
1920.000MHz E2



2300.000MHz E1



2300.000MHz E2



AUX ANTENNA S11 AND PASSIVE TEST DATA



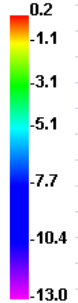
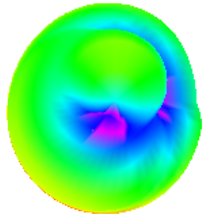
Freq (MHz)	Effi (%)	Gain (dBi)
800	26.19	-3.7
810	27.63	-3.29
820	28.34	-3.03
830	29.97	-2.74
840	32.31	-2.13
850	32.56	-1.63
860	36.79	-0.73
870	37.7	-0.39
880	42.46	0.2
890	44.82	0.44
900	46.72	0.61
910	48.26	0.72
920	47.23	0.41
930	44.19	0.03
940	39.37	-0.2
950	35.27	-0.54
960	30.25	-1.2

Freq (MHz)	Effi (%)	Gain (dBi)
1700	46.28	1.78
1720	43.91	1.5
1740	38.32	1.29
1760	36.38	1.64
1780	33.39	1.18
1800	31.31	0.49
1820	32.09	0.68
1840	30.78	1.08
1860	33.2	1.51
1880	32.53	1.37
1900	34.8	2.17
1920	35.99	2.76
1940	39.4	2.98
1960	41.78	3.1
1980	39.38	3.14
2000	39.4	3.31
2020	39.42	3.31
2040	38.47	3.24
2060	38.73	3.17
2080	41.3	3.46
2100	39.47	3.48
2120	31.44	2.26
2140	30.28	1.74
2160	30.26	1.69
2180	29.99	1.15

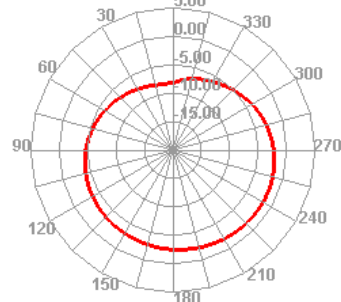
Freq (MHz)	Effi (%)	Gain (dBi)
2300	37	2.04
2320	38.68	2.36
2340	37.45	2.35
2360	36.15	2.02
2380	35.61	1.79
2400	32.62	1.57
2420	36.52	2.14
2440	37.2	2.22
2460	40.3	2.72
2480	40.81	2.97
2500	44.81	3.31
2520	40.46	2.76
2540	39.58	2.76
2560	34.03	1.97
2580	34.33	1.69
2600	31.01	0.88
2620	30.25	0.55
2640	26.59	-0.67
2660	27.1	-0.84
2680	27.95	0.19
2700	26.76	0.46

AUX ANTENNA 2/3D TEST PATTERN

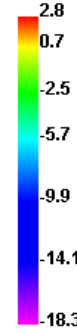
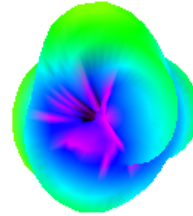
880.000MHz



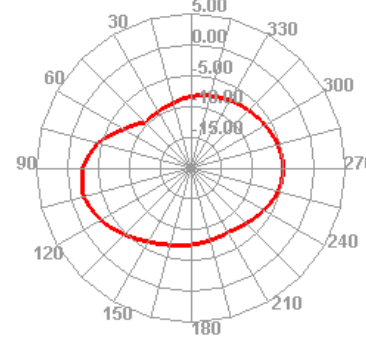
880.000MHz H



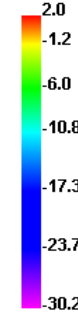
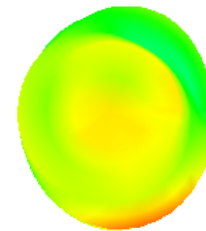
1920.000MHz



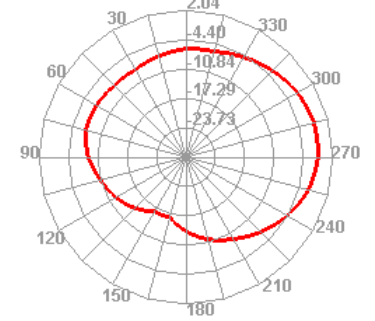
1920.000MHz H



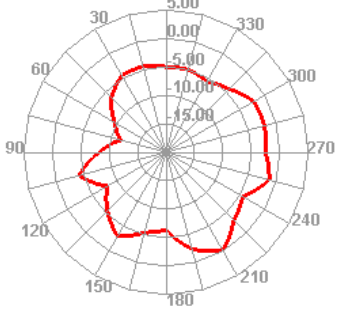
2300.000MHz



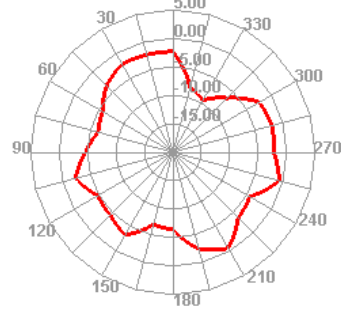
2300.000MHz H



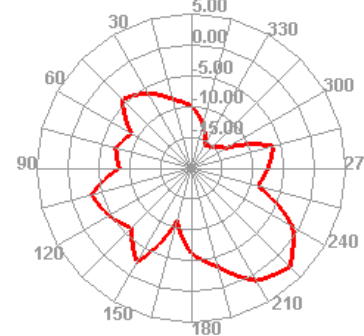
880.000MHz E1



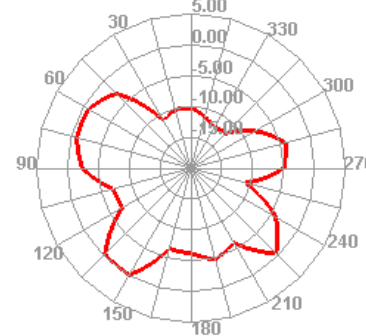
880.000MHz E2



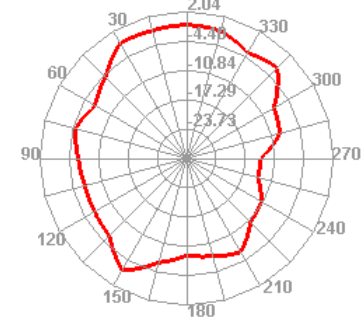
1920.000MHz E1



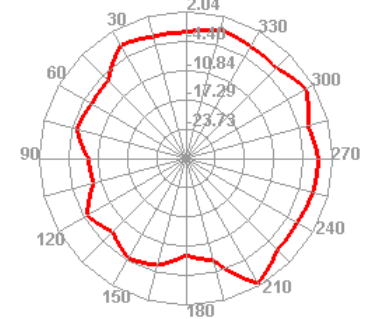
1920.000MHz E2



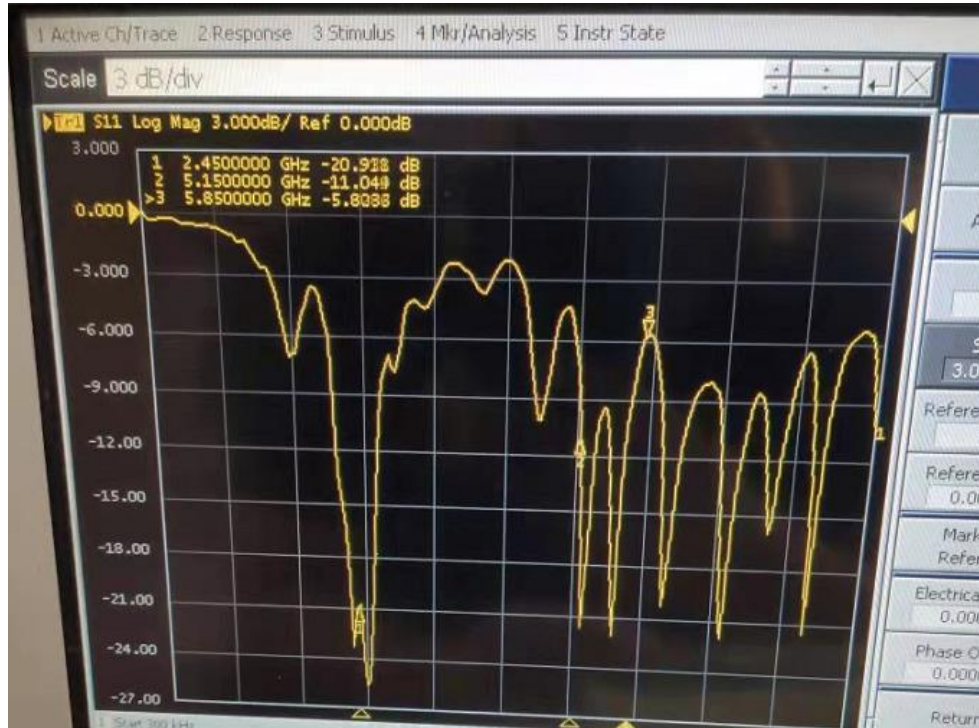
2300.000MHz E1



2300.000MHz E2



BT/WIFI ANTENNA S11 AND PASSIVE TEST DATA

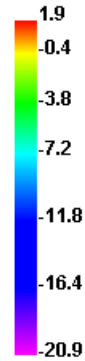
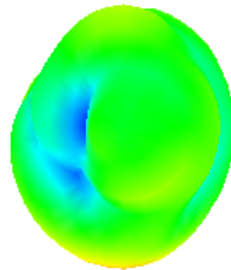


Freq (MHz)	Effi (%)	Gain (dBi)
2400	36.24	1.51
2410	41.22	1.96
2420	39.6	1.74
2430	40.85	1.84
2440	41.16	1.78
2450	43.59	1.92
2460	44.81	1.94
2470	42.6	1.71
2480	43.38	1.65
2490	44.71	1.6
2500	46.39	1.62

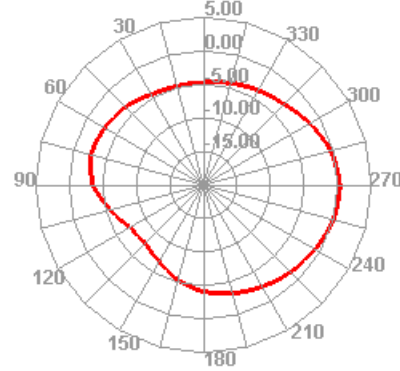
Freq (MHz)	Effi (%)	Gain (dBi)
5150	43.87	0.61
5170	41.14	0.71
5190	40.46	0.97
5210	39.79	0.87
5230	42.72	1.11
5250	38.57	0.91
5270	40.23	0.97
5290	41.67	0.92
5310	43.7	1.19
5330	49.47	1.69
5350	48.58	1.38
5370	53.47	1.82
5390	50.8	1.58
5410	53.13	2.08
5430	52.75	2.25
5450	48.69	2.06
5470	46.84	1.8
5490	48.1	1.74
5510	45.69	1.36
5530	43.55	1.28
5550	44.92	1.36
5570	42.22	1
5590	41.19	0.64
5610	40.63	0.4
5630	41.58	0.54
5650	40.51	0.51
5670	42.01	0.66
5690	40.99	0.54
5710	41.2	0.45
5730	44.11	0.72
5750	40.04	0.28
5770	40.93	0.3
5790	37.83	0.12
5810	39.7	0.32
5830	38.93	0.11
5850	41.41	0.42

BT/WIFI ANTENNA 2/3D TEST PATTERN

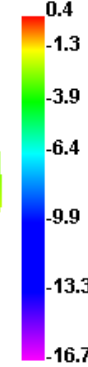
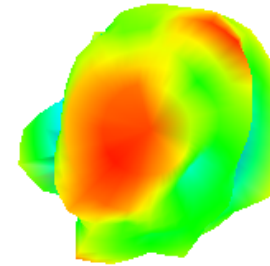
2450.000MHz



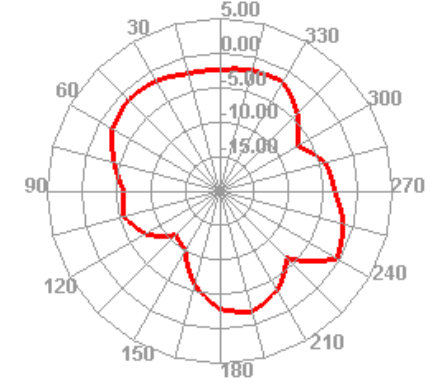
2450.000MHz H



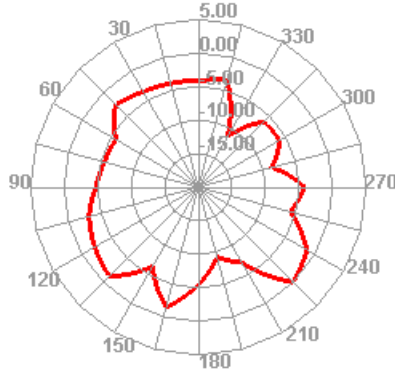
5850.000MHz



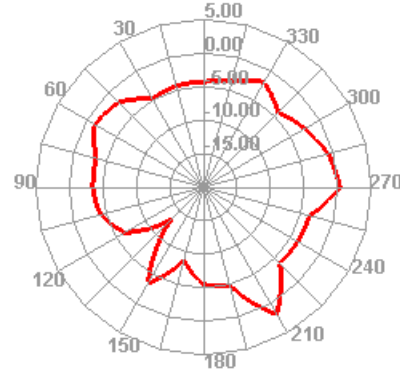
5850.000MHz H



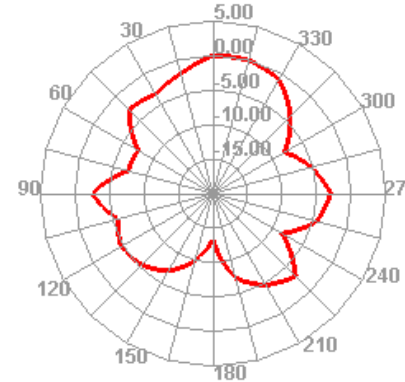
2450.000MHz E1



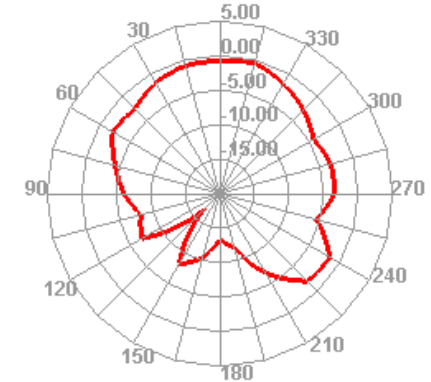
2450.000MHz E2



5850.000MHz E1



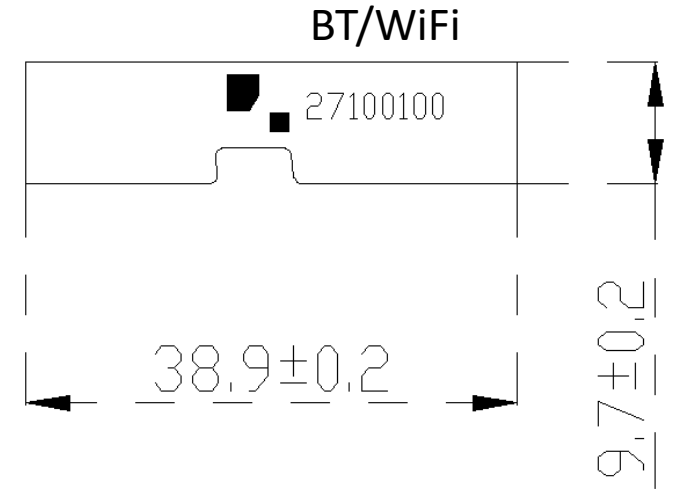
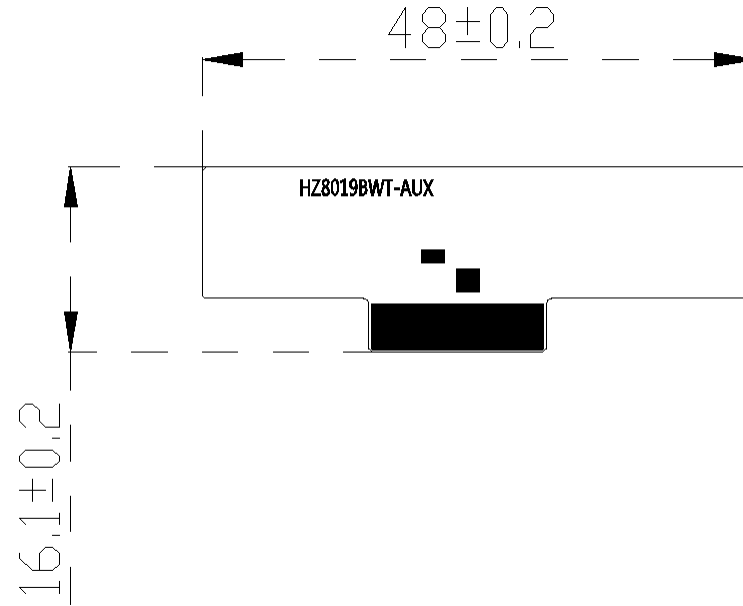
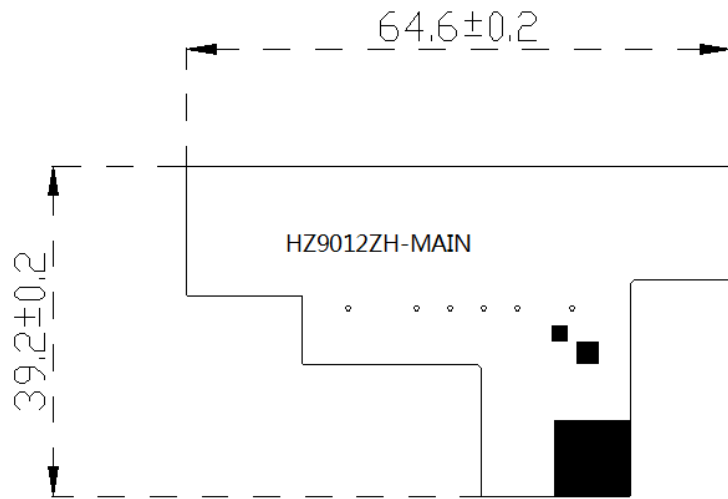
5850.000MHz E2



ANTENNA ACTIVE TEST DATA

Test Result	LTE1 TRP			LTE3 TRP			LTE5 TRP			LTE8 TRP		
	18050	18300	18550	19250	19575	19900	20450	20525	20600	21500	21625	21750
Frequency (MHz)	1925	1950	1975	1715	1747.5	1780	829	836.5	844	885	897.5	910
TRP (dBm)	22.74	22.55	21.86	22.79	22.72	22.95	22.02	21.83	21.9	20.44	20.64	20.62
MAX (dBm)	27.47	27.59	27.38	28.2	27.78	27.81	25.86	25.47	25.57	24.59	25.72	25.94
Test Result	LTE1 TIS			LTE3 TIS			LTE5 TIS			LTE8 TIS		
			550			1900			2600			3750
Frequency (MHz)			2165			1875			889			955
TIS (dBm)			-94.91			-94.64			-84.13			-84.39
Test Result	LTE38 TRP			LTE39 TRP			LTE40 TRP			LTE41 TRP		
	37800	38000	38200	38300	38450	38600	38700	39150	39600			40620
Frequency (MHz)	2575	2595	2615	1885	1900	1915	2305	2350	2395			2593
TRP (dBm)	18.4	19.11	20.17	22.3	22.02	21.95	21.51	20.48	20.07			19.89
MAX (dBm)	21.92	22.12	23.56	26.84	26.94	26.8	25.32	24.46	23.81			22.93
Test Result	LTE38 TIS			LTE39 TIS			LTE40 TIS			LTE41 TIS		
			38200			38600			39600			40620
Frequency (MHz)			2615			1915			2395			2593
TIS (dBm)			-93.98			-94.12			-94.06			-95.7

ANTENNA DIMENSION



THANKS