

Shenzhen HamyWe Technology Co., Ltd.

C401

版本
V1

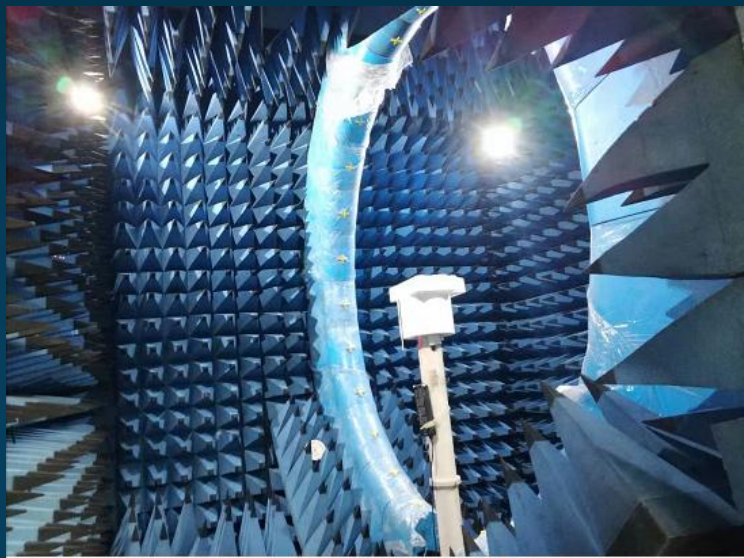
调试报告



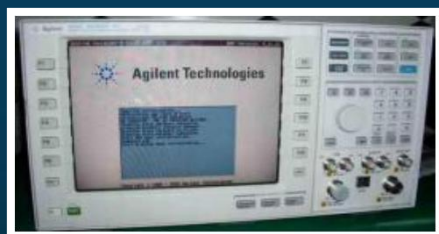
负责人：钟一铭
电话：15607971884
日期：2024/03/26

测试设备(Equipment Testing)

SG24



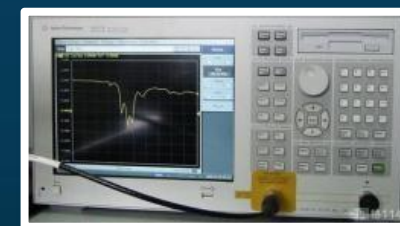
GTS



Agilent 8960



CMW 500



Agilent E5071B

测试系统(Test System)	测试环境(Test Environment)	有源测试(OTA Testing)	无源测试(SAR Testing)
SG24 ETS	温度(Temperature): $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$ 湿度(humidity): $50\% \pm 15\%$	支持(Support)2G/3G/4G 支持(Support)BT/WIFI/GPS	600MHZ——6G

调试版本记录Debug version log

(C401)

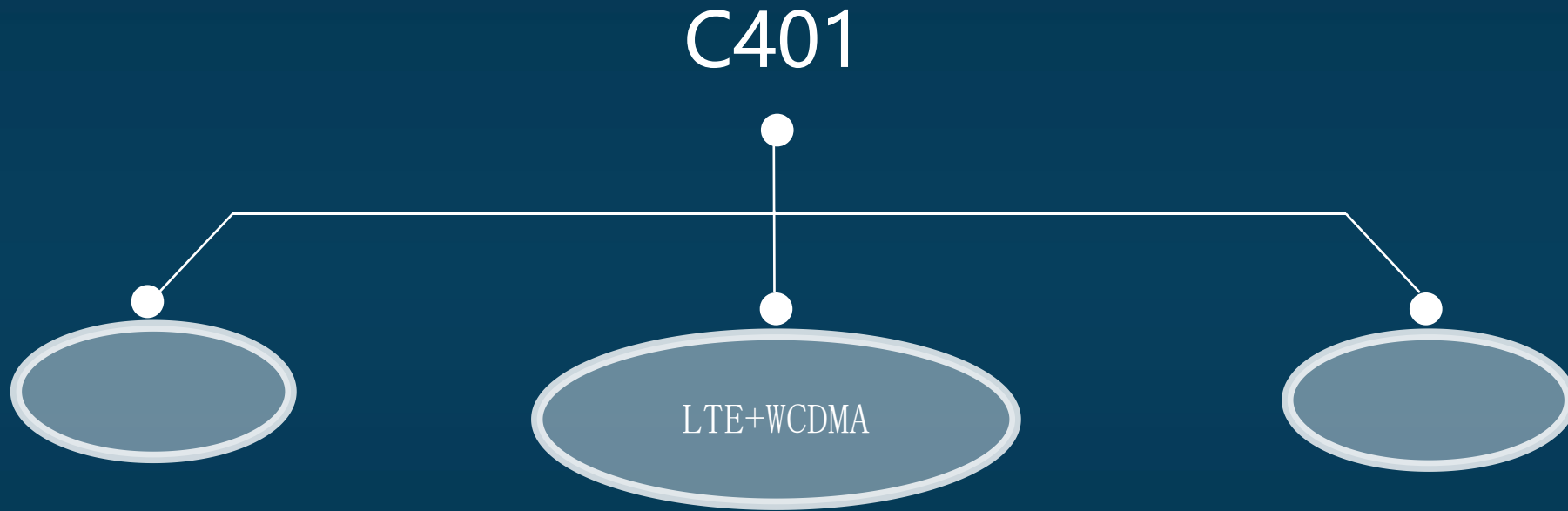


主板丝印 (MotherBoard Screen Printing)

主板版本(MotherBoard Version):
CRH51C5_MB_V1.0_2031113

[illegible]

项目说明(Project description)



机器类型:

天线方式: fpc

匹配改动: 未更改

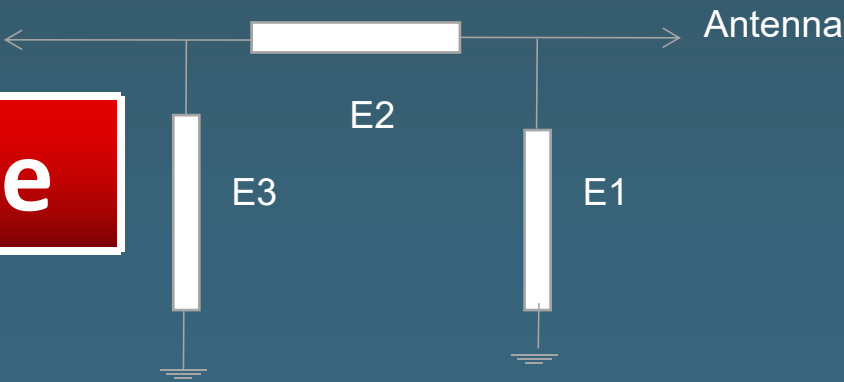
Device: Mobile Phone

Antenna Type: fpc

Matching changes: No changes

匹配电路(Matching Circuit)

RF Module



Matching Changes	No Change
------------------	-----------

匹配是否有改动	未改动
---------	-----

天线(Antenna)	
Element	Value
E1 (0201)	
E2 (0201)	
E3 (0201)	

OTA测试数据(OTA Test Data):

Band	TRP	TIS	Band	TRP	TIS	Band	TRP	TIS
LTE B2	19.89		LTE B12	18.35		W2	20.11	
	19.64			18.21			19.87	
	18.32	-90.71		18.17	-91.37		18.95	-103.26
LTE B4	18.95		LTE B13	18.13		W4	19.06	
	19.57			18.27			19.97	
	20.13	-92.99		18.14	-90.11		20.25	-103.47
LTE B5	18.77		LTE B17	18.17		W5	18.33	
	19.54			19.21			18.45	
	19.36	-92.26		18.09	-90.46		18.74	-103.49
LTE B7	20.39		LTE B66	19.42				
	20.24			19.19				
	20.35	-93.46		18.93	-91.26			

主天线无源测试数据(Main Antenna SAR Test Data):

700	-4.38	-0.54	36.46
710	-3.59	0.44	43.76
720	-3.23	0.11	47.58
730	-3.07	0.56	49.35
740	-2.88	0.59	51.53
750	-2.81	0.29	52.35
760	-3.18	0.23	48.05
770	-3.36	-0.01	46.12
780	-3.72	-0.61	42.48
790	-4.62	-1.65	34.48
800	-5.38	-0.85	28.99
810	-3.25	1.68	47.35
820	-3.15	1.36	48.4
830	-3.19	1	47.99

840	-3.13	0.81	48.66
850	-3.2	0.68	47.86
860	-3.24	0.43	47.37
870	-3.25	0.19	47.28
880	-3.28	0.3	46.94
890	-3.55	-0.5	44.17
900	-3.72	-0.07	42.51
910	-3.78	-0.64	41.9
920	-3.76	-0.12	42.09
930	-3.82	-0.19	41.46
940	-3.51	0.05	44.61
950	-3.15	0.22	48.42
960	-2.74	-0.09	53.24

1700	-3.68	0.34	42.89
1720	-3.56	0.8	44.05
1740	-3.09	0.95	49.11
1760	-2.84	1.15	52.05
1780	-3.03	0.43	49.72
1800	-3.04	1.02	49.63
1820	-2.91	1.61	51.19
1840	-2.76	1.96	52.99
1860	-2.15	3.03	60.94
1880	-0.98	4.45	79.81
1900	-1.11	4.06	77.52
1920	-1.34	3.89	73.43
1940	-1.55	3.57	69.95
1960	-1.57	3.62	69.6
1980	-1.64	3.62	68.57
2000	-1.73	3.49	67.15
2020	-1.88	3.61	64.89
2040	-1.86	3.52	65.22
2060	-1.99	3.64	63.2
2080	-2.07	3.48	62.02
2100	-2.19	3.77	60.39
2120	-2.19	3.28	60.35
2140	-2.06	3.16	62.27
2160	-1.92	3.38	64.26

2300	-2.08	3.33	61.95
2320	-2.12	3.21	61.33
2340	-1.91	3.51	64.48
2360	-1.77	3.74	66.58
2380	-1.7	3.27	67.63
2400	-1.6	3.43	69.11
2420	-1.94	3.23	63.94
2440	-1.88	3.38	64.9
2460	-1.68	4.07	67.94
2480	-1.56	4.17	69.85
2500	-1.51	4.1	70.6
2520	-1.47	3.49	71.21
2540	-1.54	3.34	70.07
2560	-1.69	3.61	67.77
2580	-1.6	4.08	69.16
2600	-1.68	4.08	67.96
2620	-1.6	4.3	69.17
2640	-1.87	4.18	65.05
2660	-1.93	4.23	64.17
2680	-2.01	4.22	62.9
2700	-2.01	4.38	62.92

分集天线无源测试数据(Secondary Antenna SAR Test Data):

700	-6.03	-2.7	24.93
710	-5.58	-2.03	27.67
720	-5.44	-2.09	28.54
730	-5.42	-1.61	28.74
740	-5.35	-1.7	29.16
750	-5.16	-1.68	30.49
760	-5.39	-1.86	28.89
770	-5.47	-1.8	28.4
780	-6.07	-2.18	24.73
790	-7.03	-2.69	24.28
800	-7.74	-3.69	24.21
810	-8.09	-4.34	23.74
820	-8.18	-4.71	23.09
830	-7.99	-3.84	23.01

840	-7.7	-3.5	22.79
850	-7.59	-2.54	22.64
860	-7.67	-2.86	21.59
870	-7.76	-3.07	21.21
880	-8.24	-3.77	21.06
890	-9.43	-4.66	20.79
900	-10.79	-5.77	20.34
910	-12.29	-7.3	20.03
920	-14.36	-9.57	19.69
930	-16.39	-11	19.52
940	-18.31	-12.62	19.31
950	-20.22	-14.91	19.28
960	-22.17	-16.22	19.21

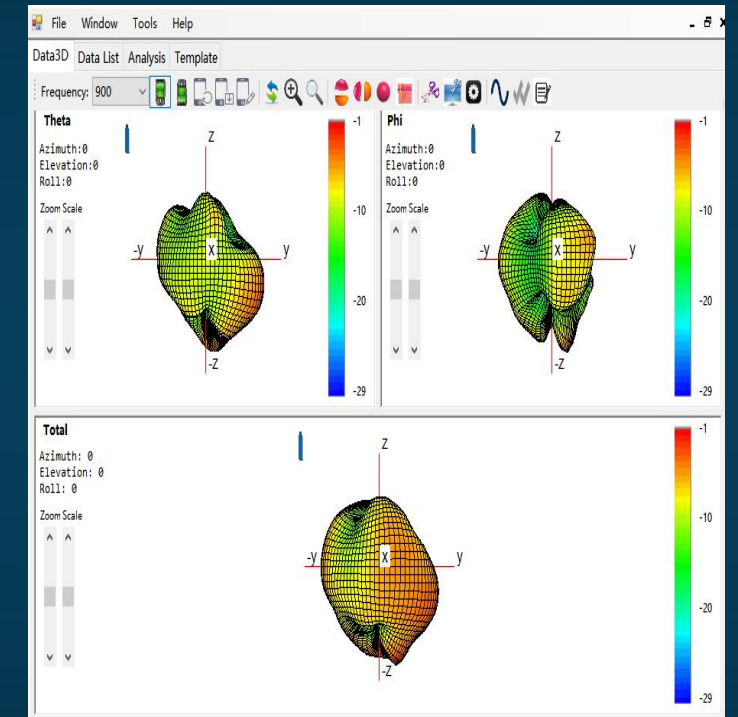
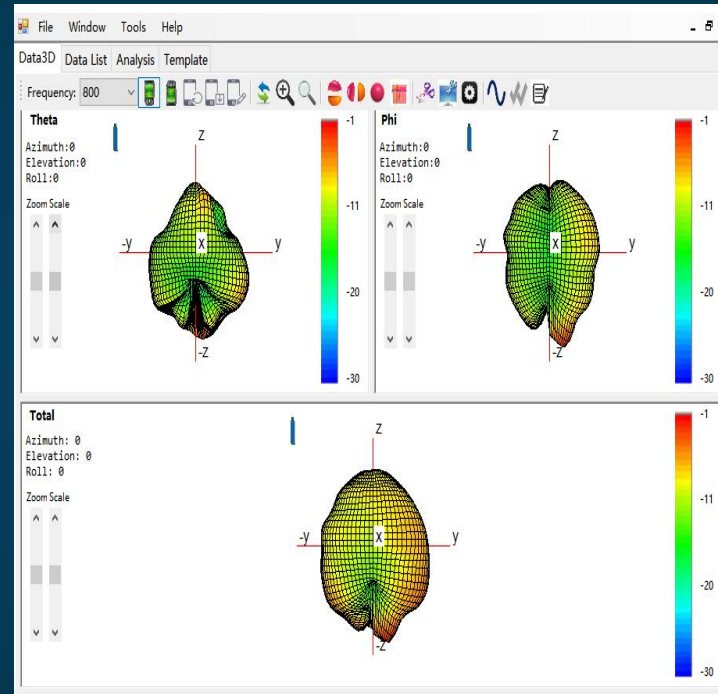
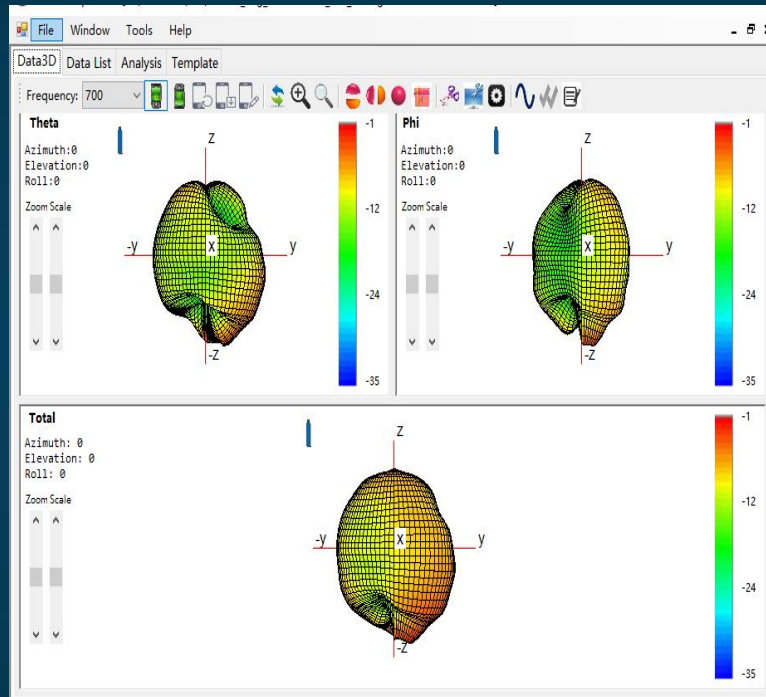
1700	-5.85	-0.92	25.97
1720	-5.86	-1.08	25.94
1740	-5.46	-0.86	28.47
1760	-4.95	-0.5	31.98
1780	-4.5	0.23	35.52
1800	-4.06	0.42	39.27
1820	-3.82	0.56	41.5
1840	-3.82	0.95	41.48
1860	-3.61	1.1	43.57
1880	-2.6	2.14	54.99
1900	-2.98	2.19	50.32
1920	-3.53	0.87	44.33
1940	-4.01	0.14	39.71
1960	-4.26	-0.63	37.48
1980	-4.23	-0.87	37.8
2000	-4.13	-0.38	38.67
2020	-4.11	0.01	38.85
2040	-3.66	0.26	43.08
2060	-3.53	0.79	44.31
2080	-3.41	0.45	45.6
2100	-3.02	0.93	49.84
2120	-2.85	1.77	51.88
2140	-2.58	1.6	55.22
2160	-2.22	2.23	59.91
2180	-2.11	2.56	61.5

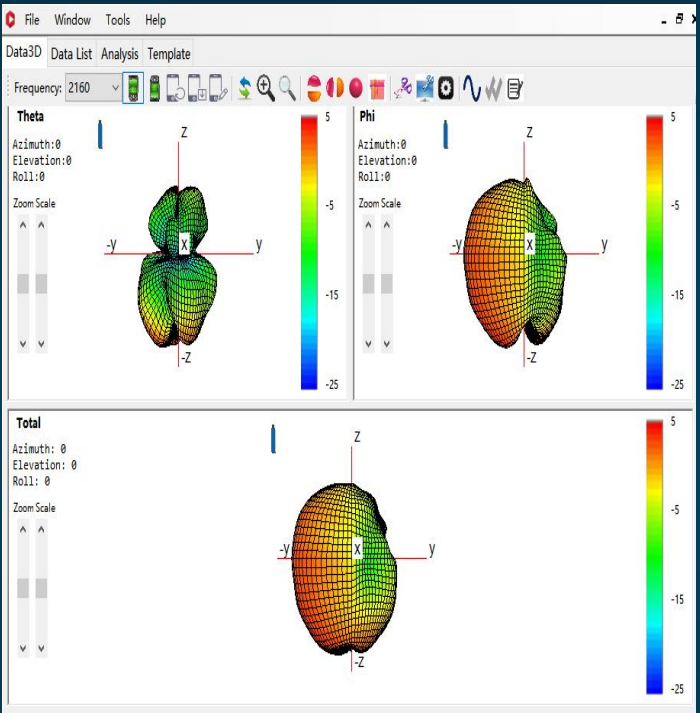
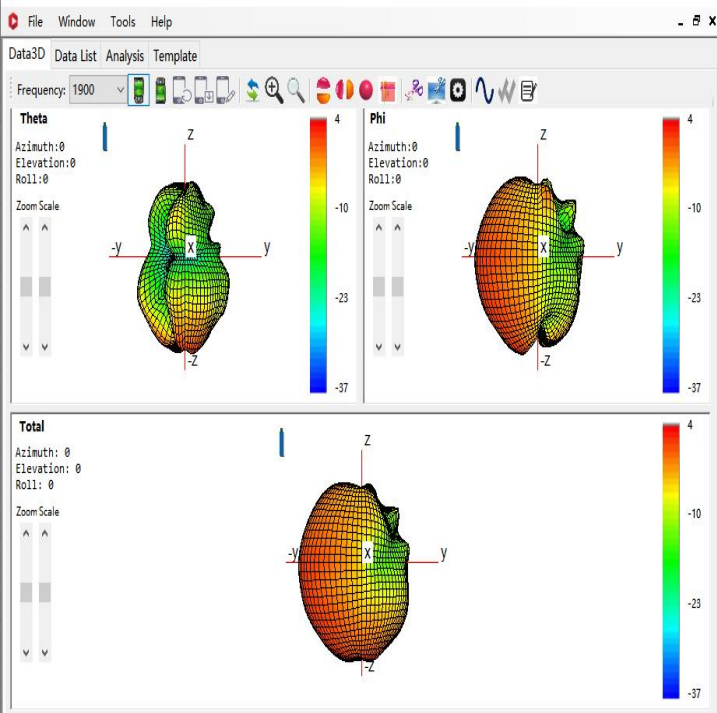
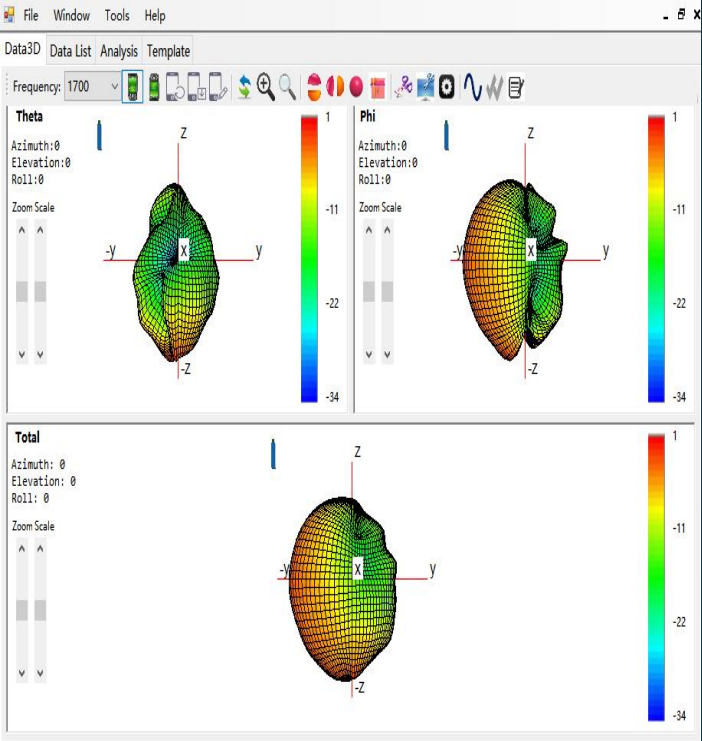
2300	-2.02	3.42	62.84
2320	-2.17	3.16	60.64
2340	-2.06	3.27	62.23
2360	-1.82	3.1	65.83
2380	-1.89	2.98	64.74
2400	-1.93	3.3	64.14
2420	-2.34	3.03	58.36
2440	-2.28	3.06	59.21
2460	-2.07	3.73	62.12
2480	-2.04	3.67	62.46
2500	-2.15	3.87	60.97
2520	-2.34	3.41	58.4
2540	-2.45	3.05	56.94
2560	-2.31	3.46	58.69
2580	-2.39	3.16	57.68
2600	-2.38	3.02	57.82
2620	-2.24	3.15	59.65
2640	-2.54	2.8	55.68
2660	-2.75	2.62	53.07
2680	-3	2.33	50.09
2700	-3.27	2.38	47.15

WiFi天线无源测试数据(WiFi Antenna SAR Test Data):

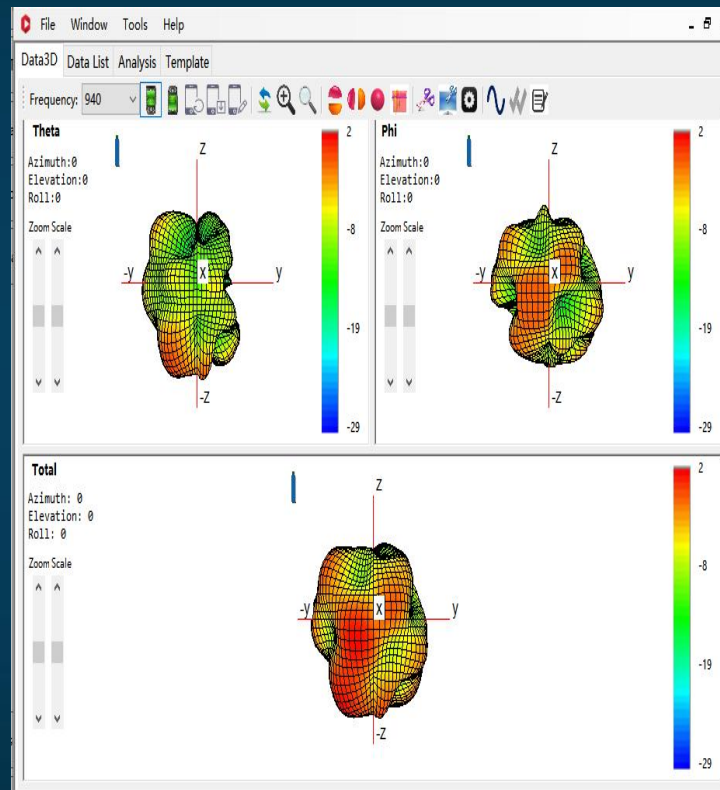
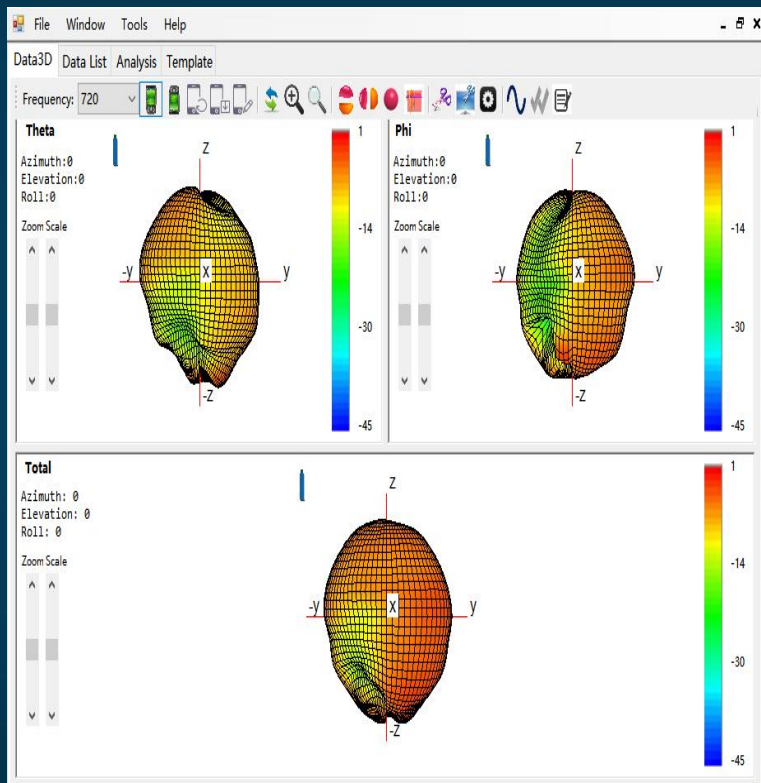
Frequency (MHz)	Gain(dBi)	Efficiency (%)
2400	3.23	64.59
2410	3.38	65.68
2420	3.46	65.92
2430	3.57	66.05
2440	3.59	67.38
2450	4.01	68.16
2460	4.03	68.95
2470	3.78	69.72
2480	3.61	69.36
2490	3.55	68.45
2500	3.42	66.32

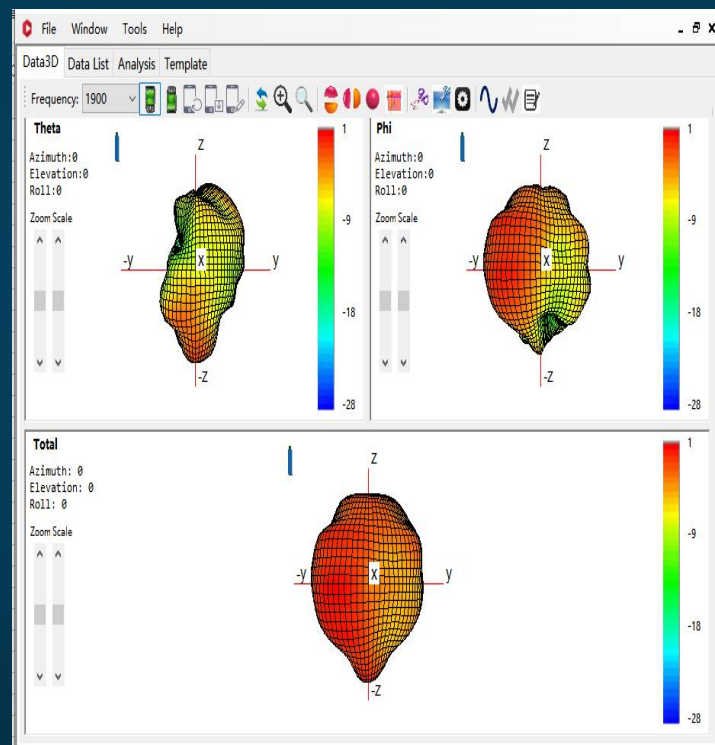
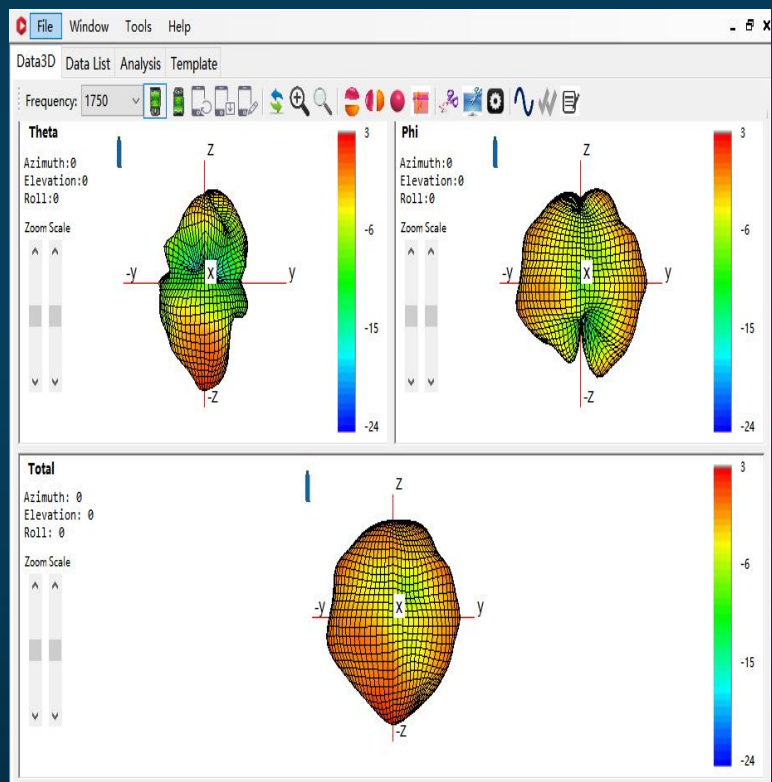
3D图（主天线） [3D Views/Pictures(Main Antenna)]:

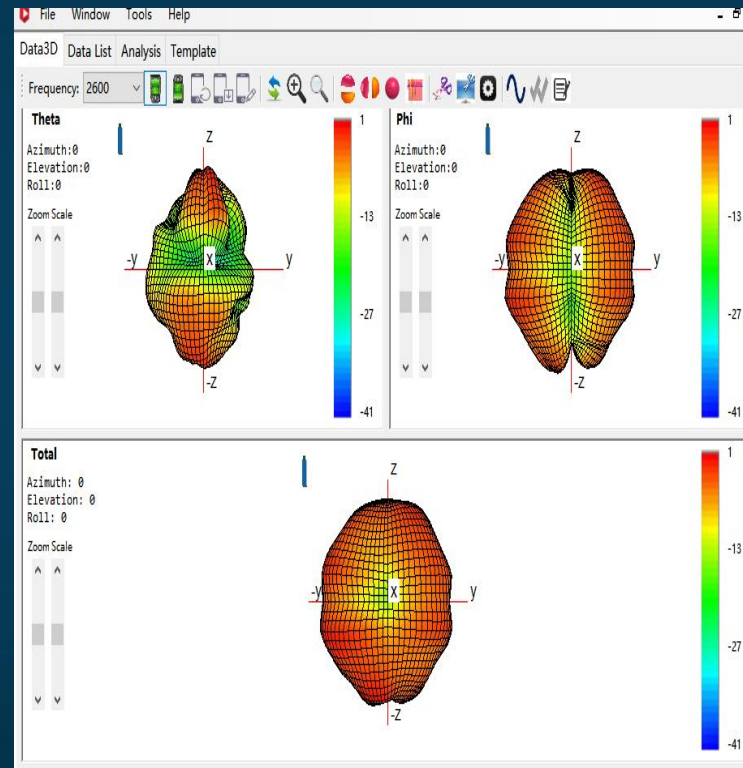
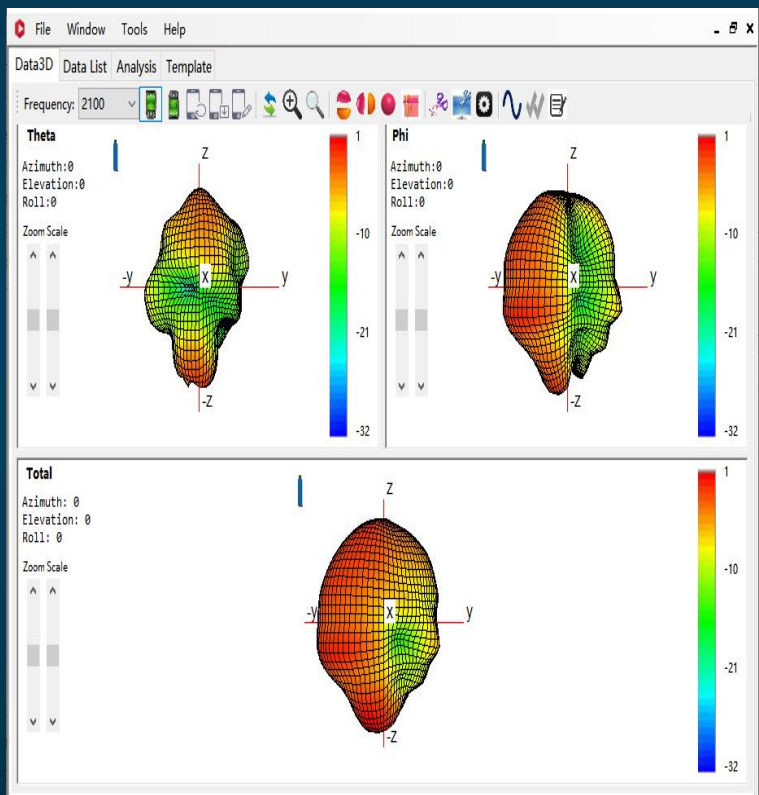




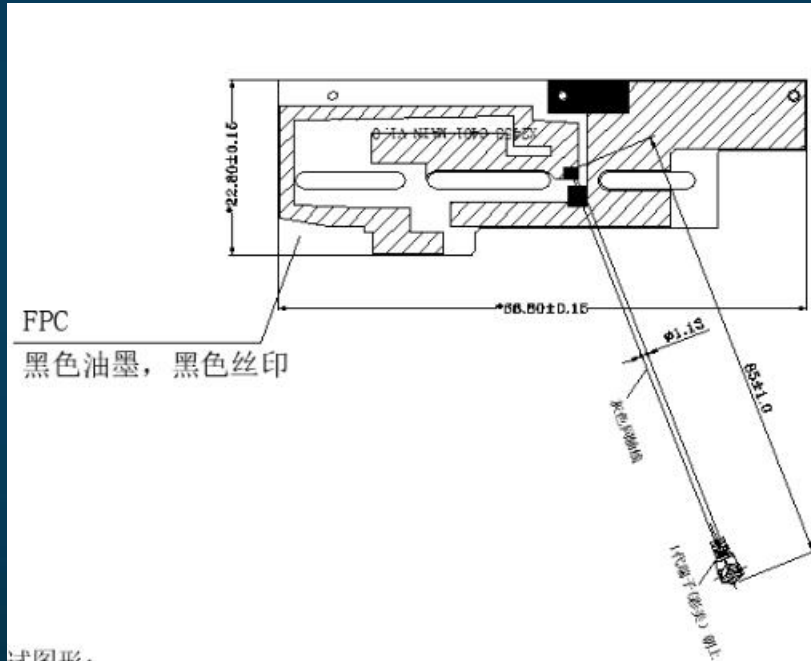
3D图（分集天线） [3D Views/Pictures(Secondary Antenna)] :



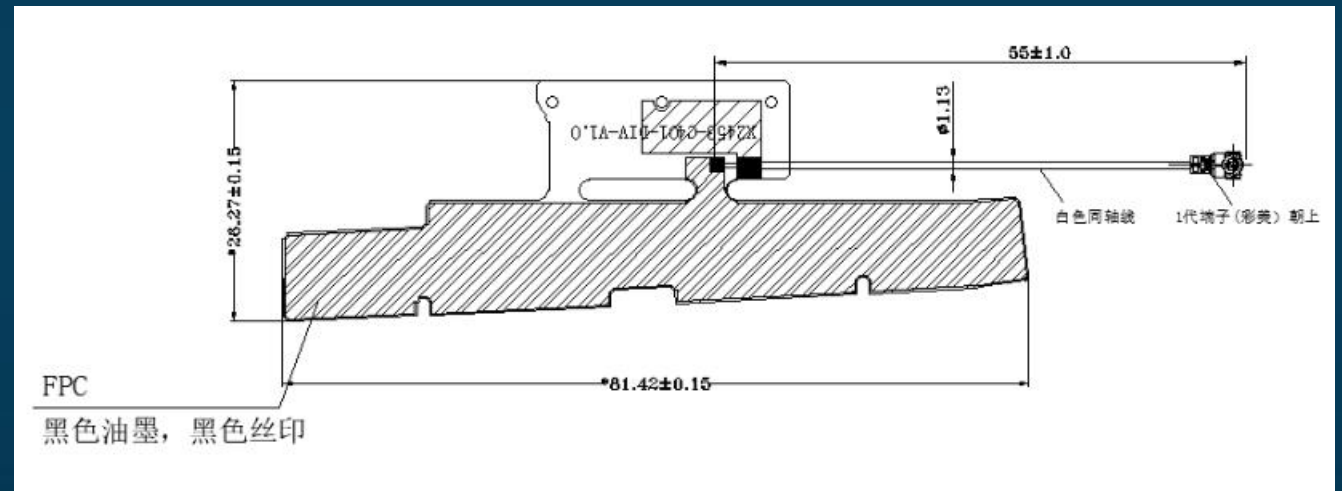




天线尺寸(Antenna Dimension):

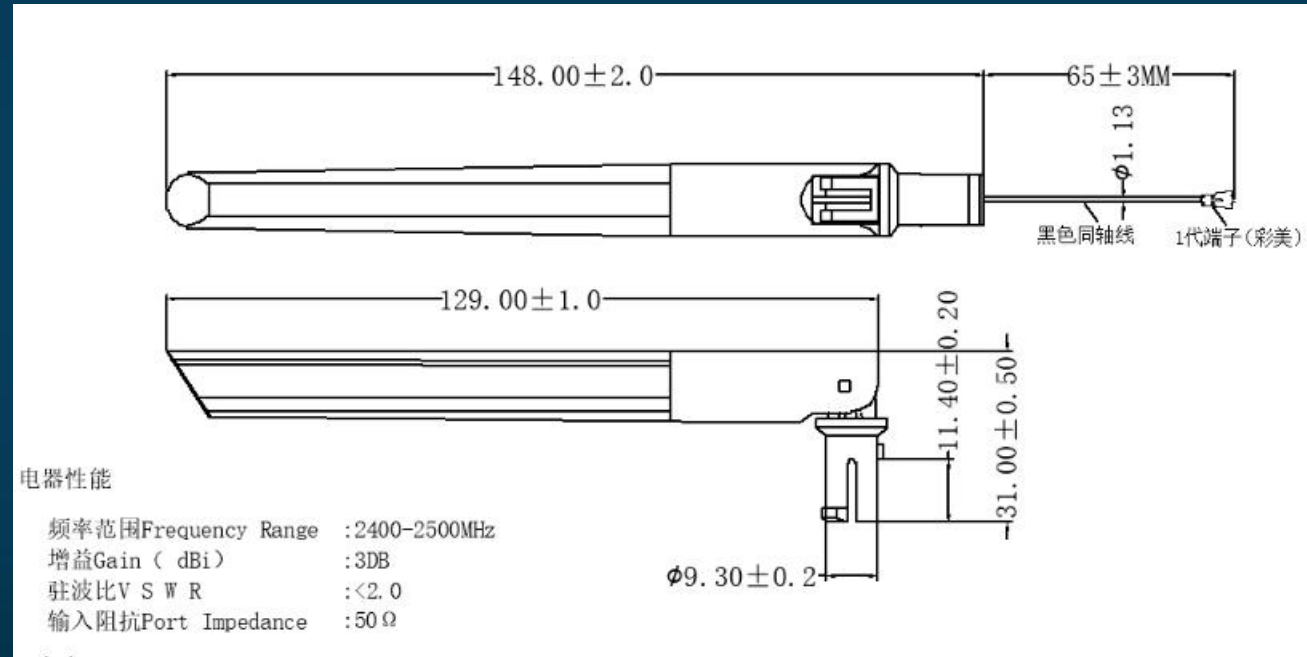


主天线 Main Antenna



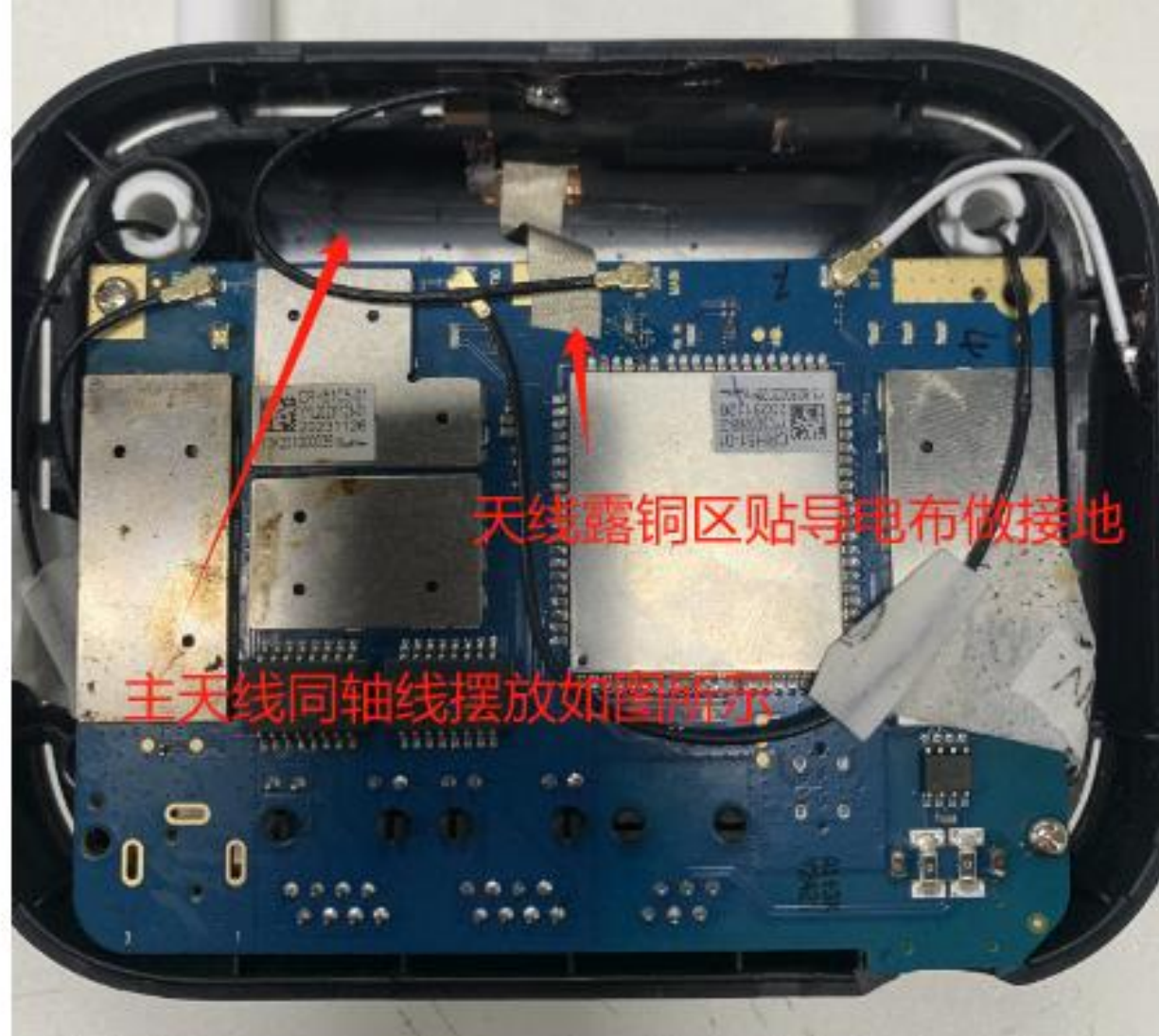
分集天线 Secondary Antenna

天线尺寸(Antenna Dimension):



WIFI天线 WIFI Antenna

环境处理(environmental treatment(manipulation?))



重要说明 (Important Notes)



1

请贵司注意报告中的匹配是否更改、环境处理是否可行；这直接会影响天线性能，若有异议请及时与本司联系；(In this report, please pay attention to whether the matching is changed and whether the environmental treatment is feasible because this will directly affect the antenna performance, if there is any objection, please contact us in time.)

2

若贵司机器有更换物料、更新软件、环处理变更等，须及时提供最新状态机器来我司验证；(If the machine has replaced materials, updated software, ring processing changes, etc., please provide the latest state of the machine to our company in a timely manner to verify.)

3

若贵公司机器需送第三方验证或送检，请最好提供送测机器来我司测试验证OK后方可送测（因为主板、环境处理、天线组装等一致性会影响天线性偏差）

(If this machine needs to be sent to a third party for verification or inspection, it is best to provide the test machine to our company for testing and verification before sending the test (because the consistency of the motherboard, environmental processing, antenna assembly, etc. will affect the antenna deviation)



深圳市和鸣微科技有限公司

Shenzhen HamyWe Technology Co., Ltd.

Add: 深圳市宝安71区留仙二路敬航工业园B栋1楼