

2023

深圳祥博一科技有限公司

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China

天线测试报告

Antenna report





TEST REPORT

01 客户名称/Customer：和天创

02 项目名称/Project：D061

03 立项编号/Project NO：XBY230144

04 工程师/Engineer：何国荣
电话/Phone：18123850014

PART 1

测试报告版本/Report version

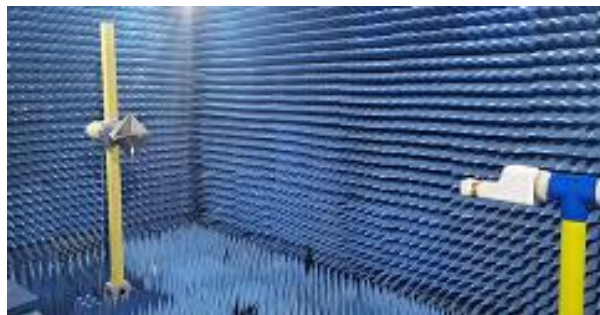
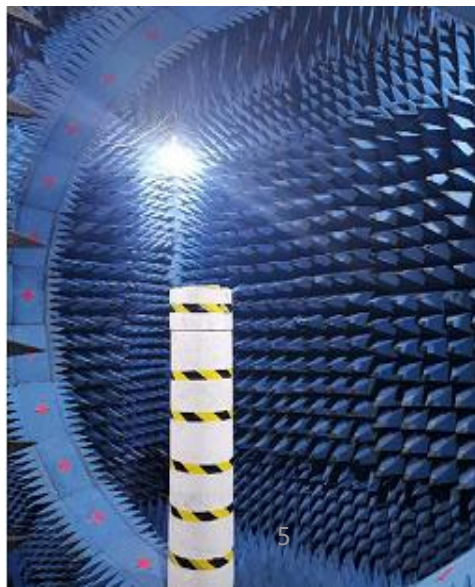
日期 Date	天线版本 Antenna version	主板版本 PCB version	变更描述 Description of Change
2023-05-13			样品天线测试数据
2023-05-16			增加BT无源测试数据

NO	ITEMS	DETAILS
1	工作频段 Operating band	WIFI:2.4G; 5.8G
2	频率范围 Frequency band	WIFI: 2400-2500Mhz; 5180-5850Mhz
3	天线类型 Antenna type	MAIN: monopole
4	天线材质及实现形状 Material and implementation shape	FPC+焊线

PART 3

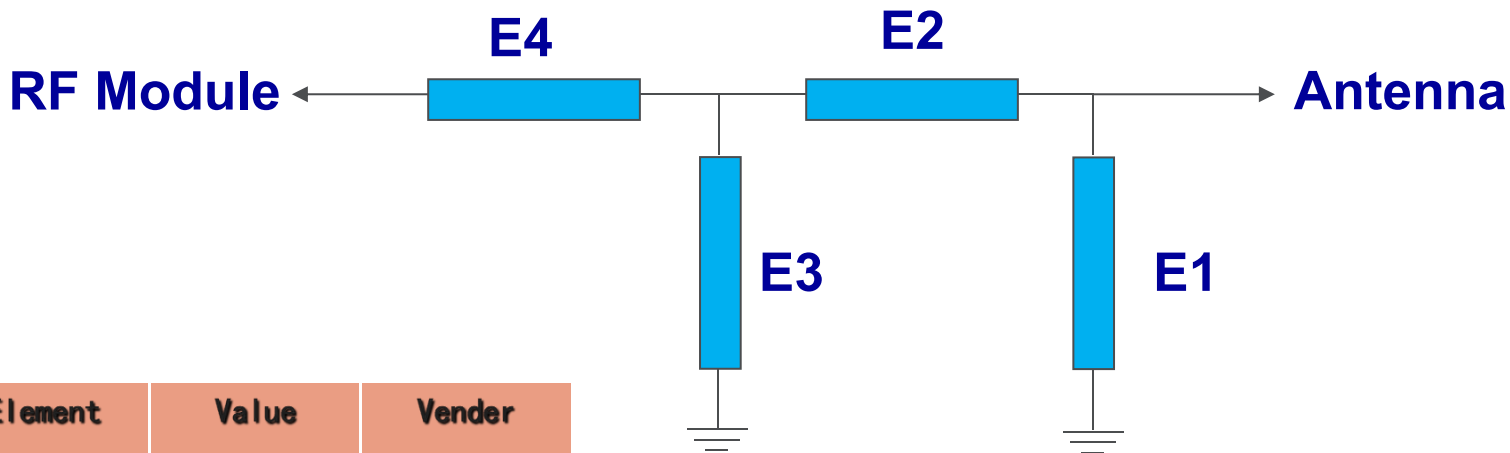
Test system and equipment

	测试项目/Test items	设备/equipment
1: S参数 S parameter	1. 回波损耗 Return loss 2. 驻波比 VSWR	网络分析仪/Network analyzer: A338/A333
2: 耦合功率测试 Active test	1. 发射功率 Transmitting power 2. 接收灵敏度 Receiving sensitivity	综合测试仪/Comprehensive test instrument: Agilent 8960/ CMW500
3: 辐射模式与增益 Radiation mode and gain	1. 辐射模式 Radiation mode 2. 天线增益 Gain	1. 暗室/Shielding room: 7x4x3 m (ETS-3D) 2. 网络分析仪/Network analyzer: HP 8753D



PART 4

匹配电路/Matching Circuits



Element	Value	Vender
E1 (0402)	NA	
E2 (0402)	0 Ohm	
E3 (0402)	NA	
E4 (0402)	0 Ohm	

Original match unchanged.

PART 5

测试数据/RF Report

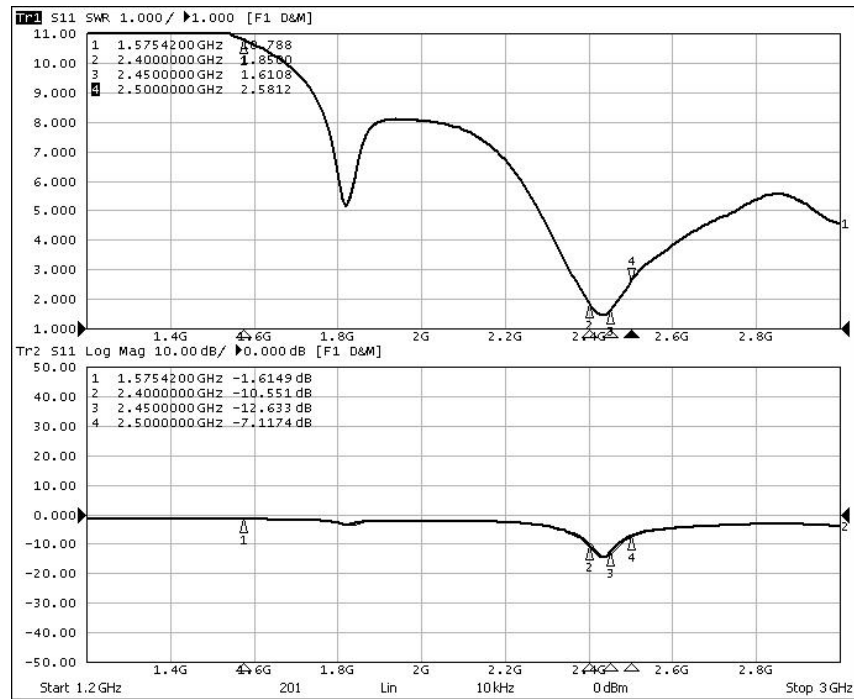
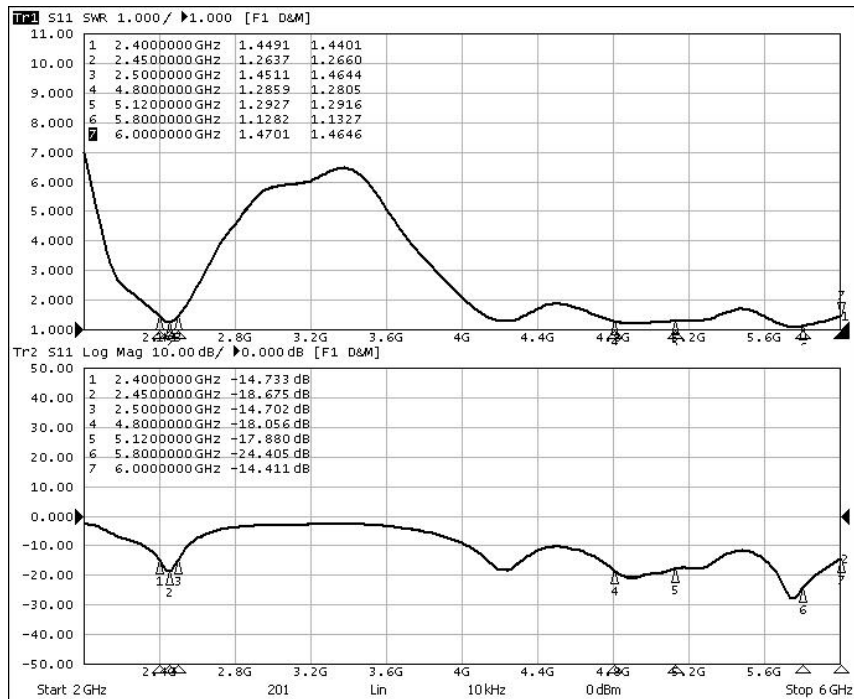
WIFI BAND	802.11a : 54Mbps (5G)					
Channel	CH36	CH149	CH161			
TRP	13.26	13.08	13.65			
TIS			-69.21			

WIFI BAND	802.11b : 11Mbps (2.4G)			802.11g : 54Mbps (2.4G)		
Channel	CH1	CH6	CH11	CH1	CH6	CH11
TRP	11.49	11.20	12.66	12.84	12.68	12.37
TIS			-78.61			-65.59

WIFI BAND	802.11n : MCS7 (2.4G)					
Channel	CH1	CH6	CH11			
TRP	12.13	12.42	12.93			
TIS			-70.84			

PART 6

测试数据/RF Report



WiFi 2.4G		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	38.77	0.05
2450	43.75	1.15
2500	43.55	1.77

WiFi 5.8G		
Freq (MHz)	Effi (%)	Gain (dBi)
5000	42.09	3.98
5100	48.89	4.04
5200	42.16	3.48
5300	38.85	2.61
5400	41.46	3.86
5500	37.66	3.68
5600	42.04	3.2
5700	40.67	2.52
5800	37.56	2.18
5900	37.53	3.47
6000	31.42	3.36

BT		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	42.97	0.81
2410	40.51	0.85
2420	46.81	1.37
2430	43.17	1.05
2440	49.66	1.74
2450	44.58	1.34
2460	48.41	1.67
2470	44.09	1.21
2480	44.72	1.38
2490	41.75	0.93
2500	42.61	1.19

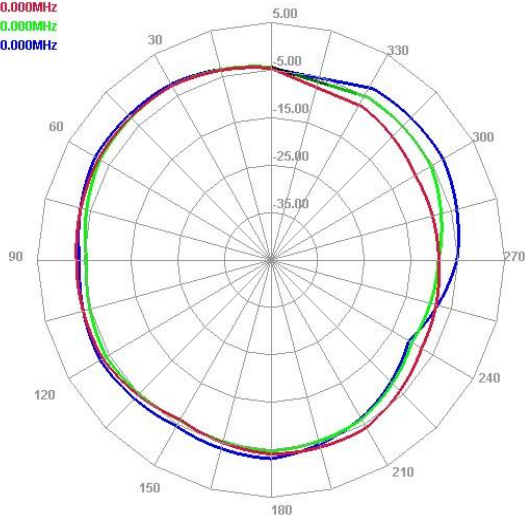
PART 6

测试数据/RF Report

WiFi 2.4G

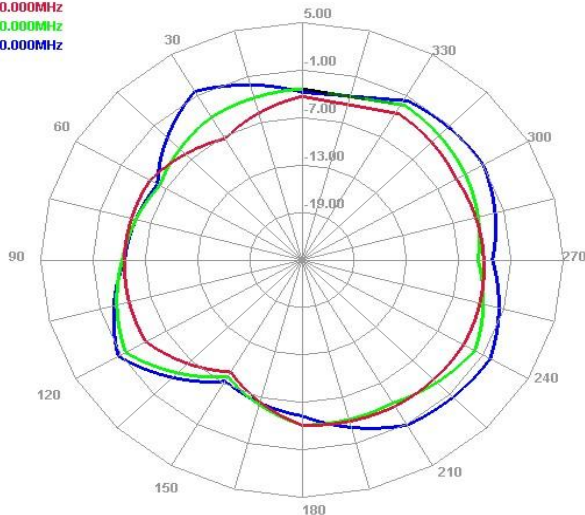
Horizontal

2400.000MHz
2450.000MHz
2500.000MHz



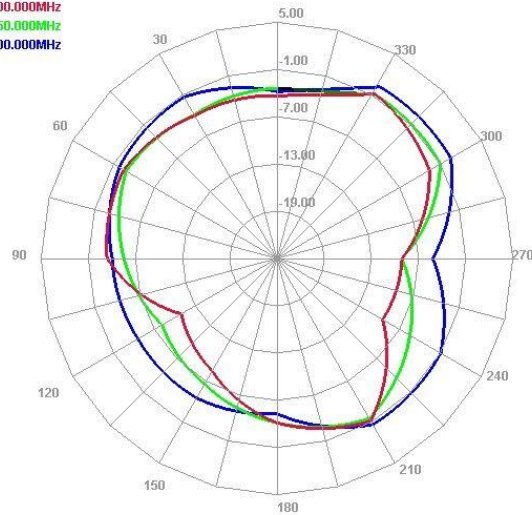
E1 Face

2400.000MHz
2450.000MHz
2500.000MHz



E2 Face

2400.000MHz
2450.000MHz
2500.000MHz

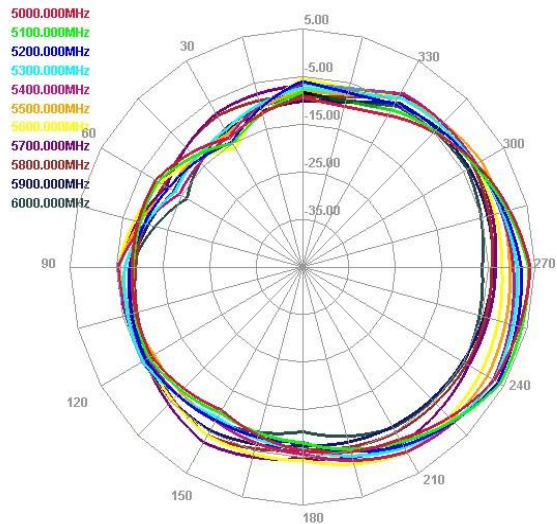


PART 6

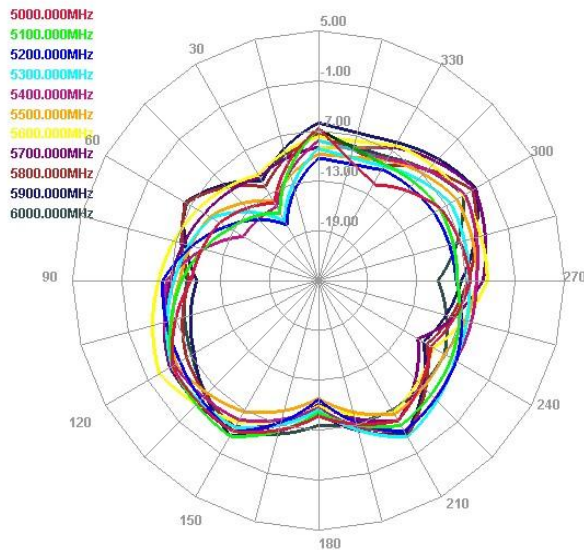
测试数据/RF Report

WiFi 5.8G

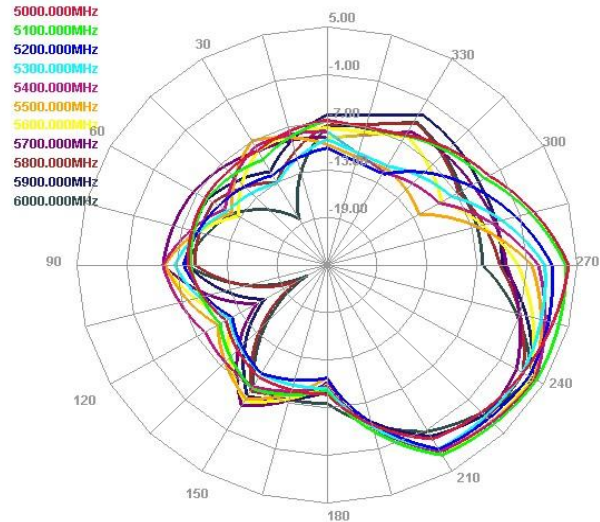
Horizontal



E1 Face



E2 Face

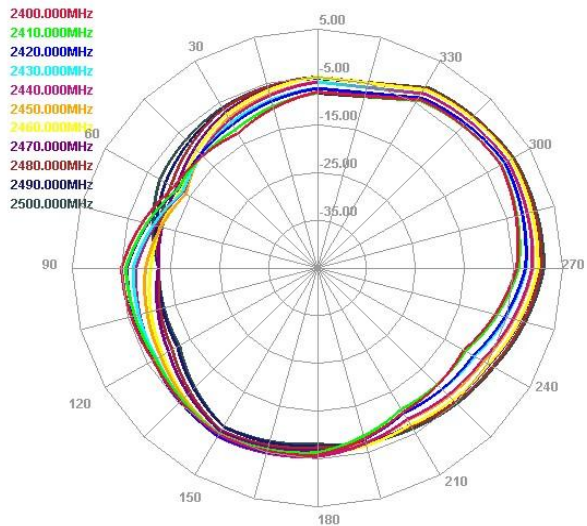


PART 6

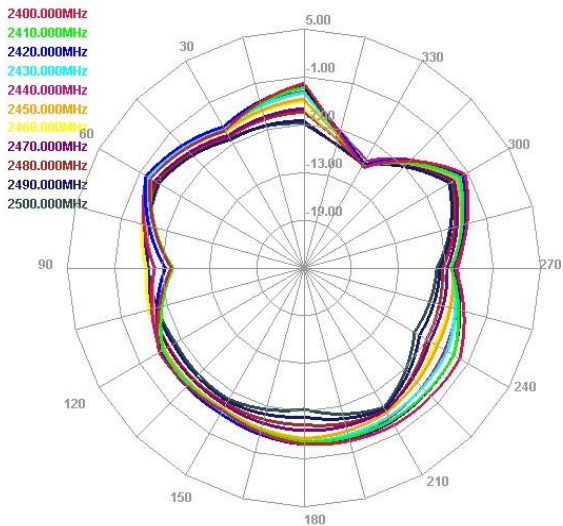
测试数据/RF Report

BT

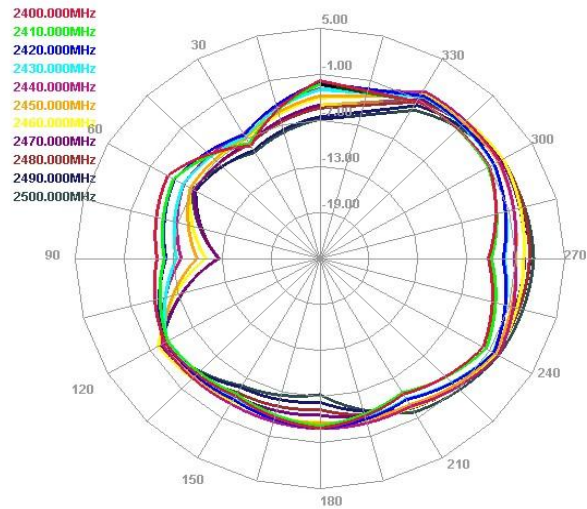
Horizontal



E1 Face

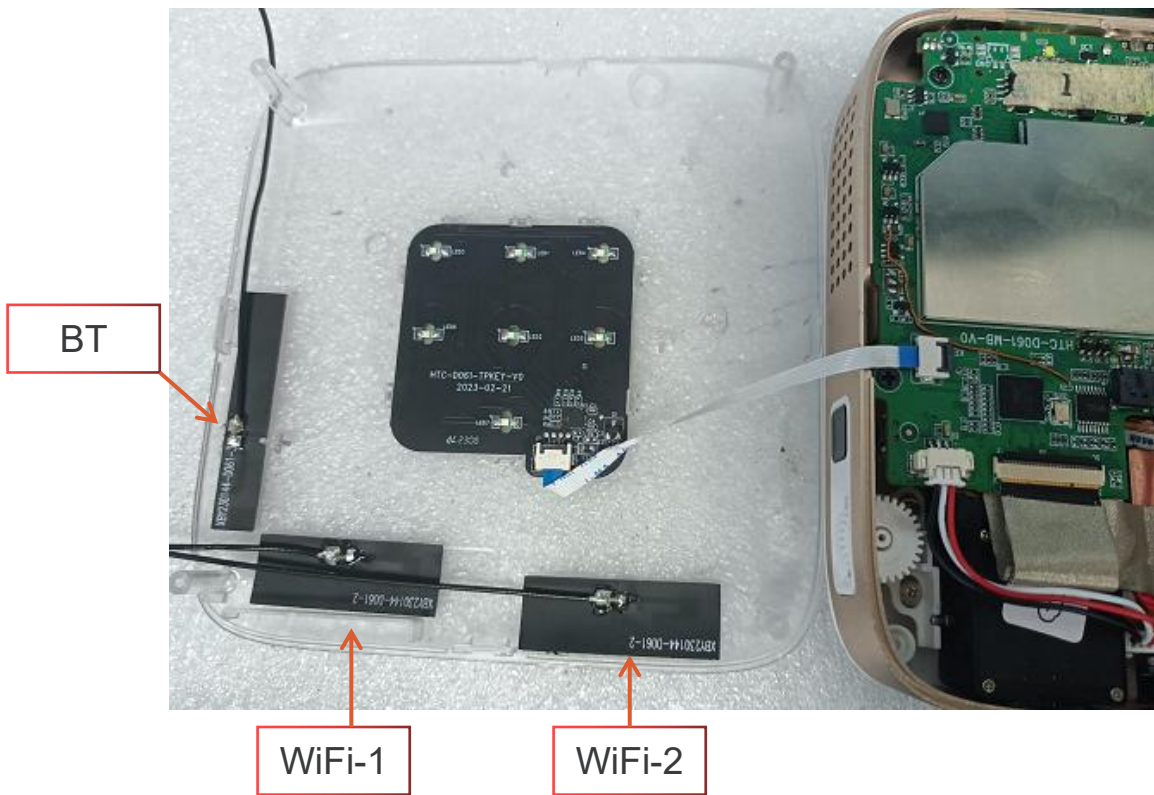


E2 Face



PART 7

组装方式/Assembly method



PART 8

整机图片 Picture of complete machine





2023 Thanks!

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