



2023

深圳祥博一科技有限公司

Shenzhen Xiangboyi Technology Co. Ltd

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：L015

03 立项编号/Project NO：XBY230511

04 工程师/Engineer：杨小文
电话/Phone：15820795642

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
2023-12-23			样品天线测试数据

PART 2

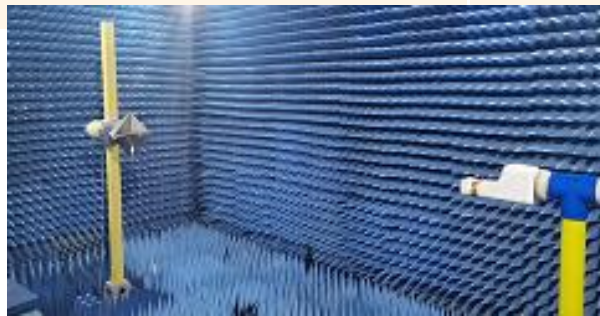
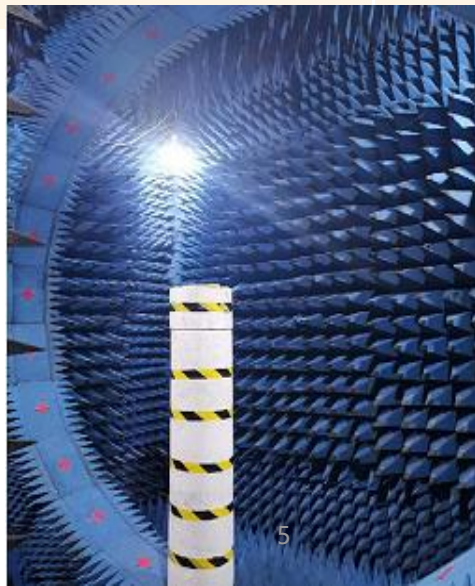
项目信息/Project brief

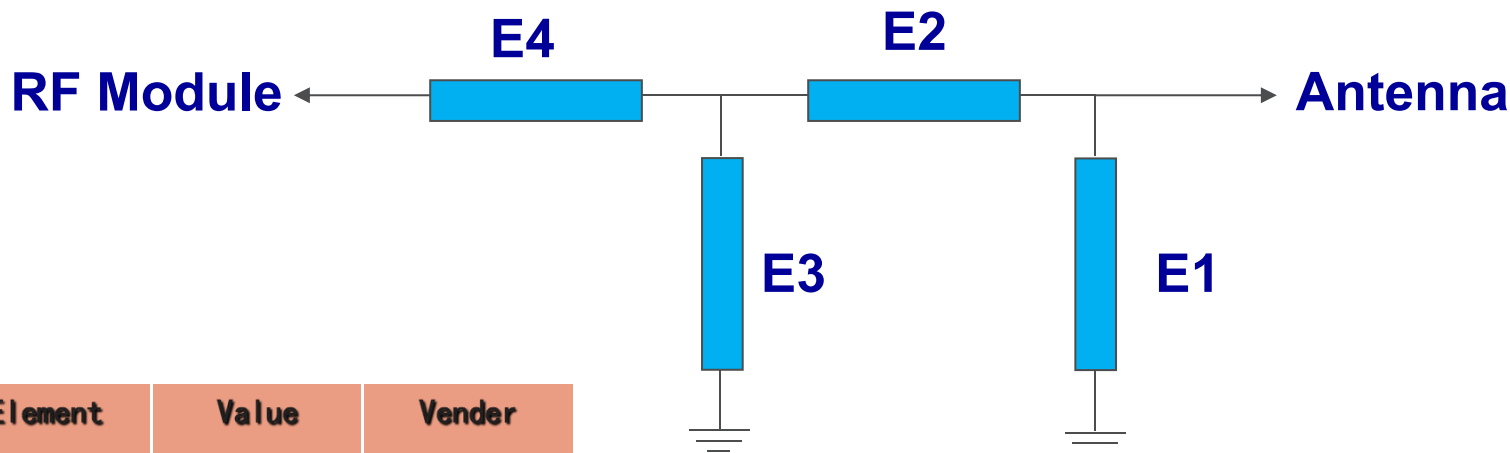
NO	ITEMS	DETAILS
1	工作频段 Operating band	WIFI:2.4G/G5 BT
2	频率范围 Frequency band	WIFI:2400-2500Mhz ;5000-6000Mhz BT:2400-2500Mhz
3	天线类型 Antenna type	monopole
4	天线材质及实现形状 Material and implementation shape	FPC+焊线

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. 效率,增益 gain 1. 辐射模式 Radiation mode	1. 暗室/Shielding room: 7x4x3 m (ETS-3D) 2. 网络分析仪/Network analyzer: HP 8753D





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

Original match unchanged.

WIFI BAND	802.11b : 11Mbps (2.4G)			802.11g : 54Mbps (2.4G)		
Channel	CH1	CH7	CH13	CH1	CH7	CH13
TRP	16.25	15	14.85	13.27	12.54	11.85
TIS			-81.47			-69.97

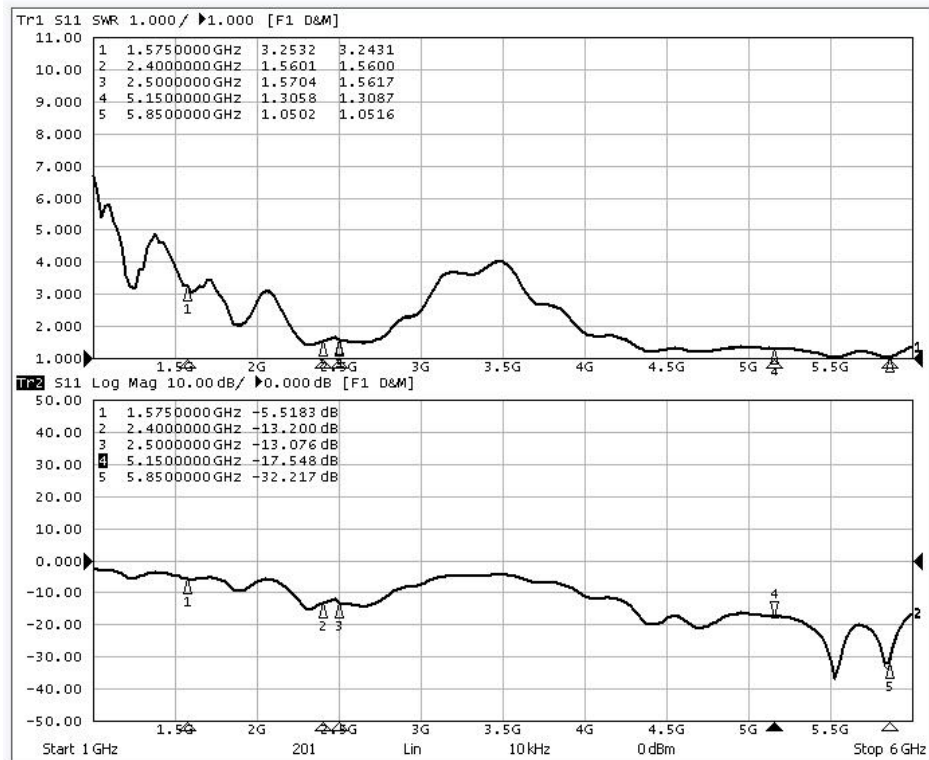
WIFI BAND	802.11n : MCS7 (2.4G)			802.11a : 54Mbps (5G)		
Channel	CH1	CH7	CH13	CH36	CH149	CH161
TRP	13.36	12.06	11.89	11.75	12.59	12.17
TIS			-71.32			-68.43

天线无源数据。

Freq (MHz)	Gain (dBi)	Efficiency (%)
2400	1.92	50.74
2450	2.33	53.74
2500	2.49	54.89
5000	2.44	48.56
5100	2.98	50.84
5200	2.54	50.44
5300	1.51	45.66
5400	2.05	55.17
5500	2.43	54.99
5600	2.6	62.14
5700	2.65	51.81
5800	2.28	47.19
5900	2.8	44.77
6000	3.13	47.23

PART 6

测试数据/RFReport

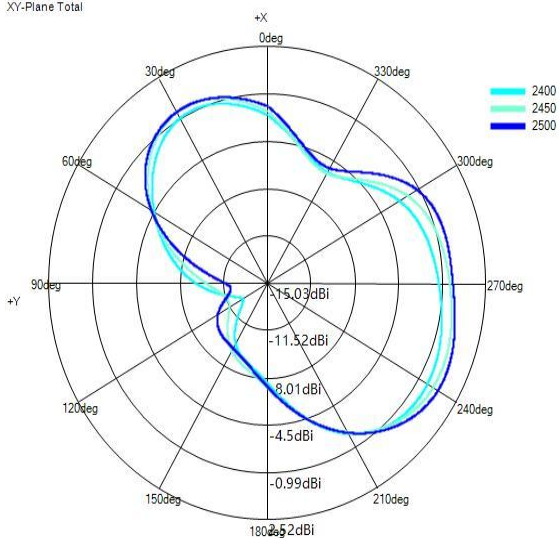


PART 6

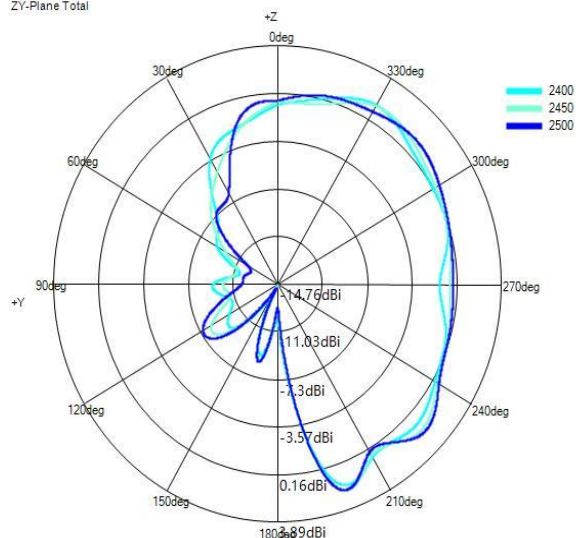
测试数据/RFReport

WIFI 2.4G/BT天线辐射方向图。

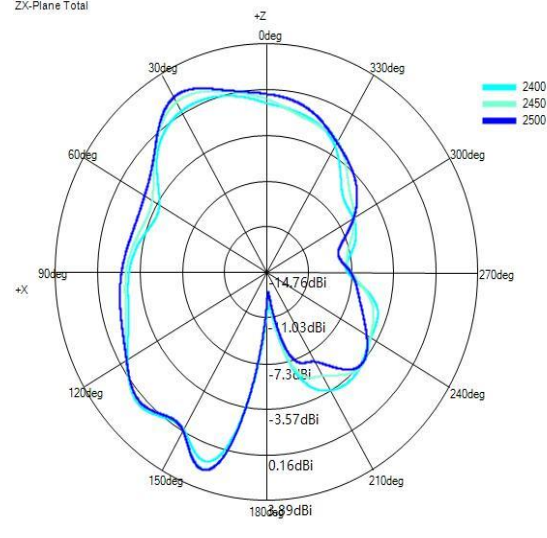
XY-Plane Total



ZY-Plane Total



ZX-Plane Total

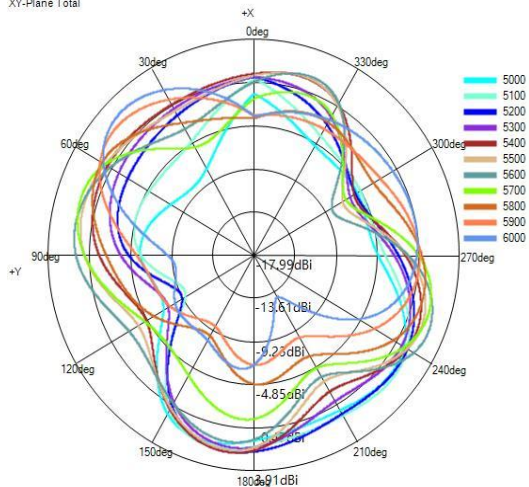


PART 6

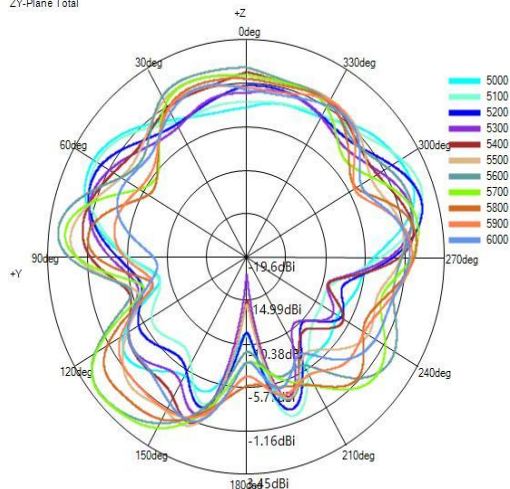
测试数据/RFReport

WIFI 5G天线辐射方向图。

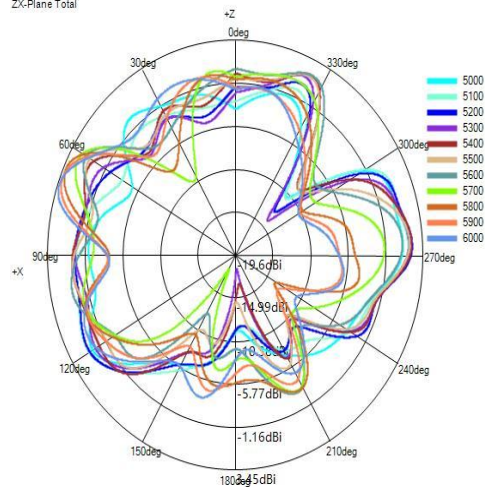
XY-Plane Total



ZY-Plane Total

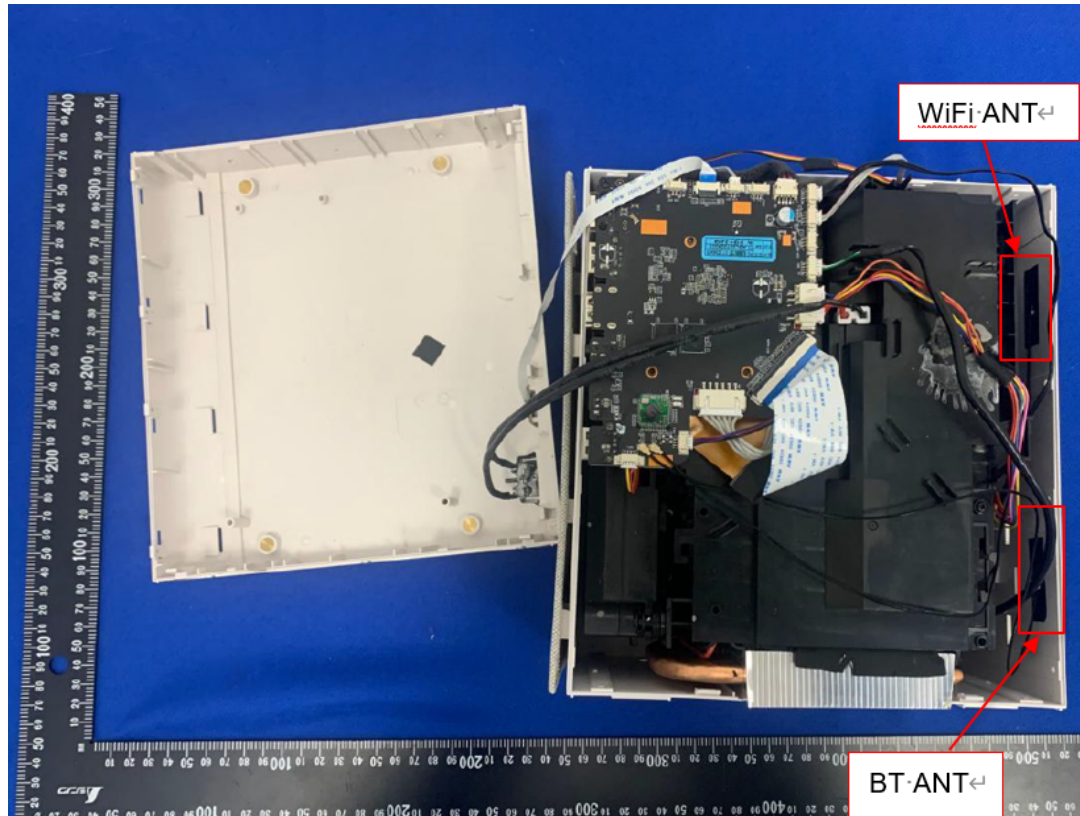


ZX-Plane Total



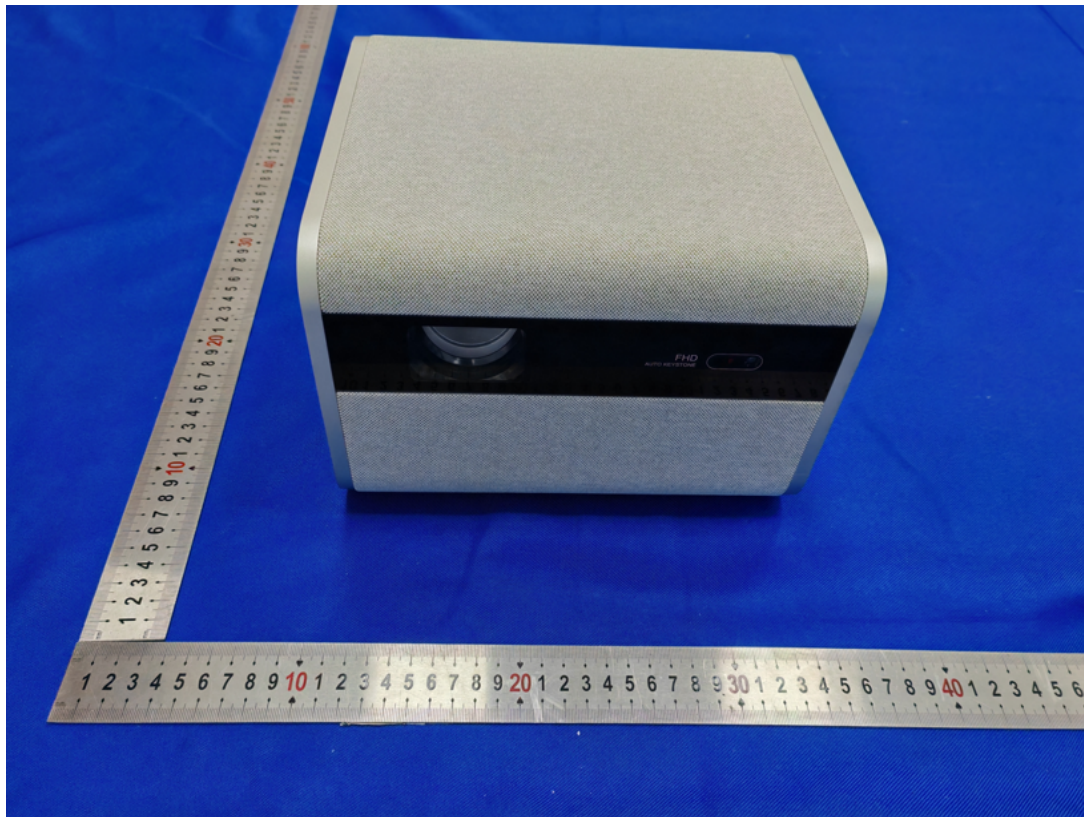
PART 7

组装方式/Assembly method



PART 9

测试整机





2023

Thanks!

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