

2022

Shenzhen Xiangboyi Technology Co. Ltd

Antenna report





TEST REPORT

01 Customer :

02 Project :

03 Project NO : XBY220089

04 Engineer :
Phone : 15820795642

PART 1

Report version



Date	Antenna version	PCB version	Description of Change
2022-11-1			

PART 2

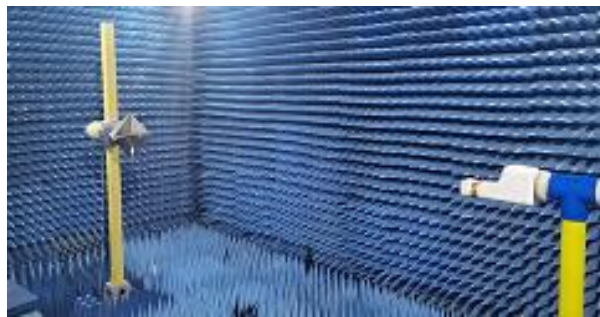
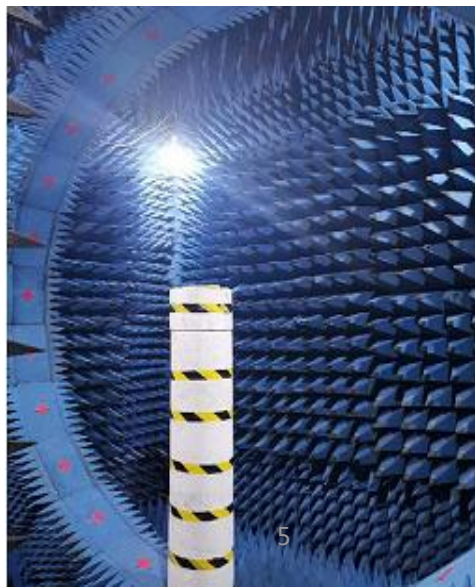
Project brief

NO	ITEMS	DETAILS
1	Operating band	WIFI: 2.4G; 5.8G
2	Frequency band	WIFI: 2400–2500Mhz; 5180–5850Mhz
3	Antenna type	MAIN: monopole
4	Material and implementation shape	FPC

PART 3

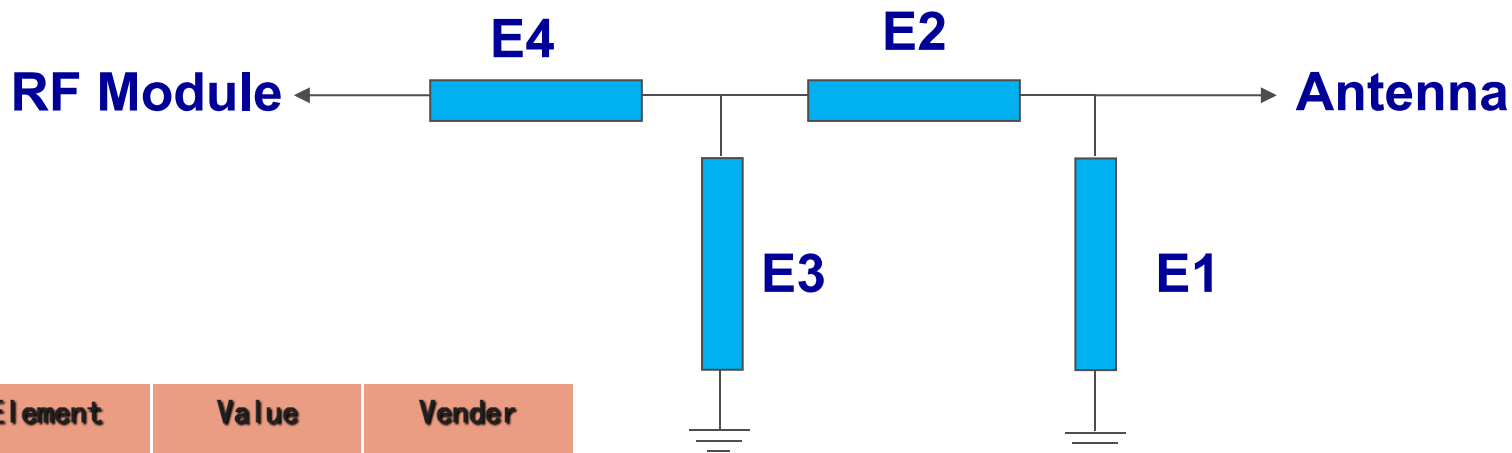
Test system and equipment

	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

Matching Circuits



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

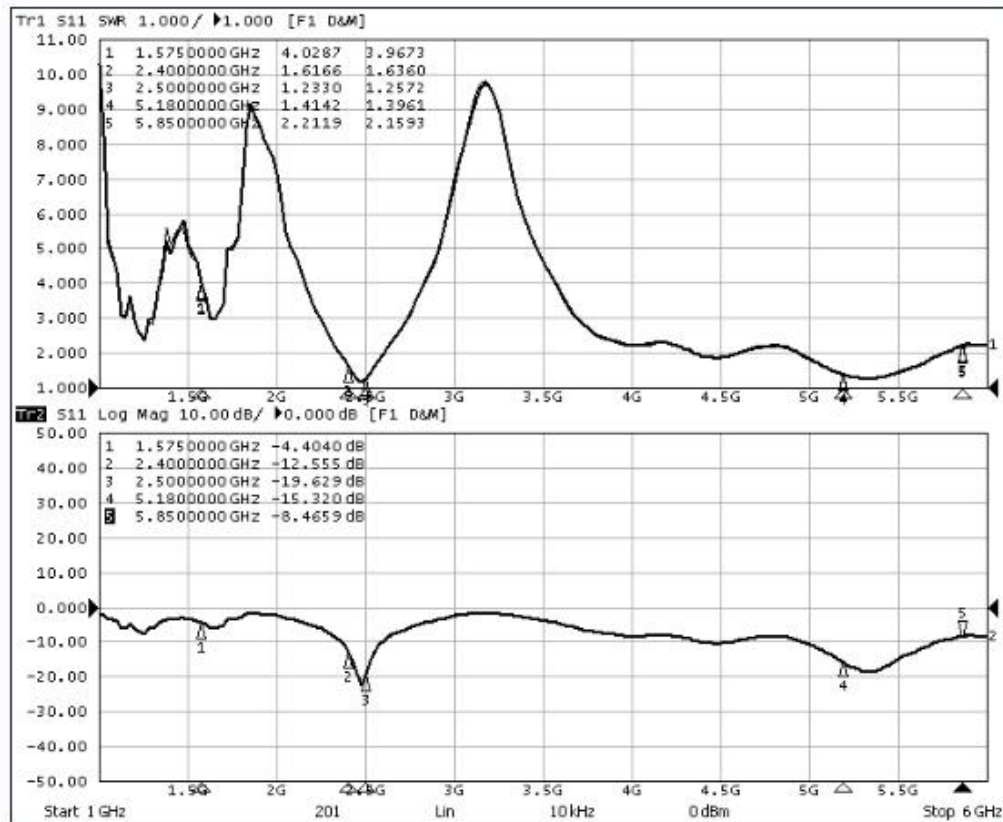
Original match unchanged.

WIFI BAND	802.11b : 11MBps (2.4G)			802.11g : 54MBps (2.4G)		
Channel	CH1	CH6	CH11	CH1	CH6	CH11
TRP	15.58	15.36	15.34	14.31	13.79	13.93
TIS			-76.42			-68.41

WIFI BAND	802.11n : MCS7 (2.4G)			802.11a : 54MBps (5G)		
Channel	CH1	CH6	CH11	CH36	CH149	CH161
TRP	14.08	13.86	13.72	12.61	13.99	13.93
TIS			-70.77			-70.17

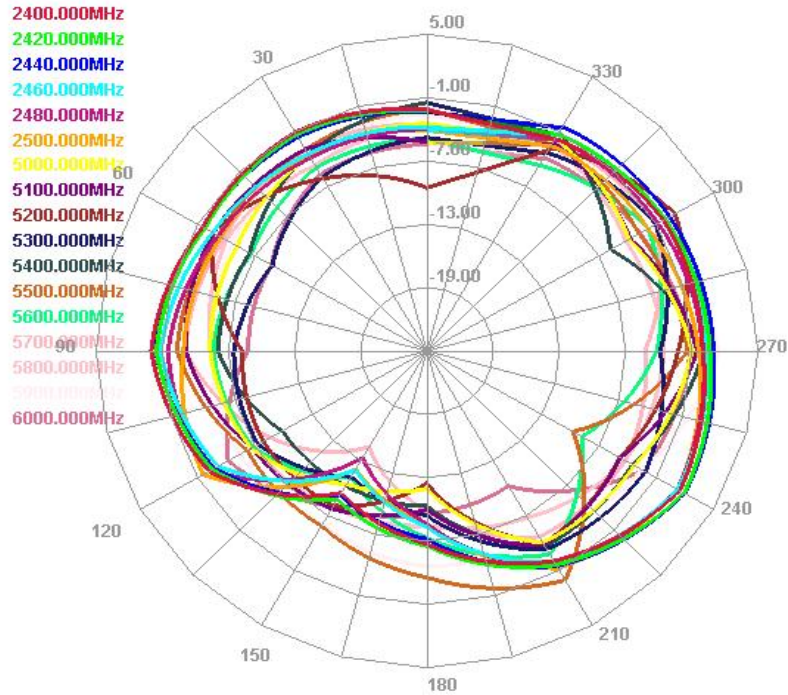
PART 6

RFReport

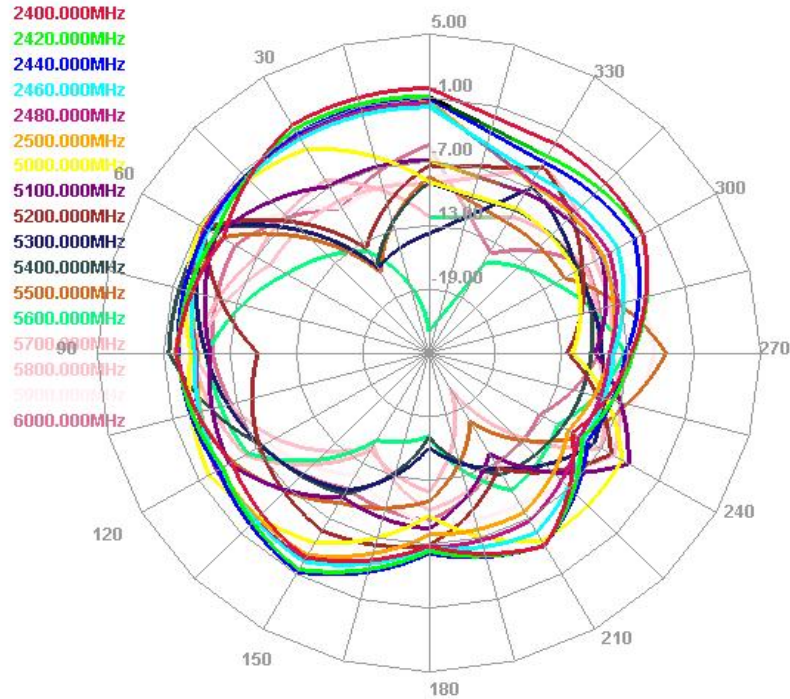


2.4G WIFI天线效率, 增益			5G WIFI天线效率, 增益		
Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
2400	37.51	1.78	5000	44.23	1.84
2410	36.62	1.53	5100	43.51	1.69
2420	37.41	2.15	5200	44.69	1.94
2430	40.78	2.59	5300	50.52	2.63
2440	39.29	2.03	5400	44.69	2.23
2450	38.87	1.77	5500	45.29	2.84
2460	41.14	2.49	5600	46.12	2.03
2470	39.25	1.63	5700	48.29	2.78
2480	38.74	1.49	5800	44.39	2.34
2490	37.88	1.34	5900	44.23	2.08
2500	37.17	1.32	6000	42.17	1.85

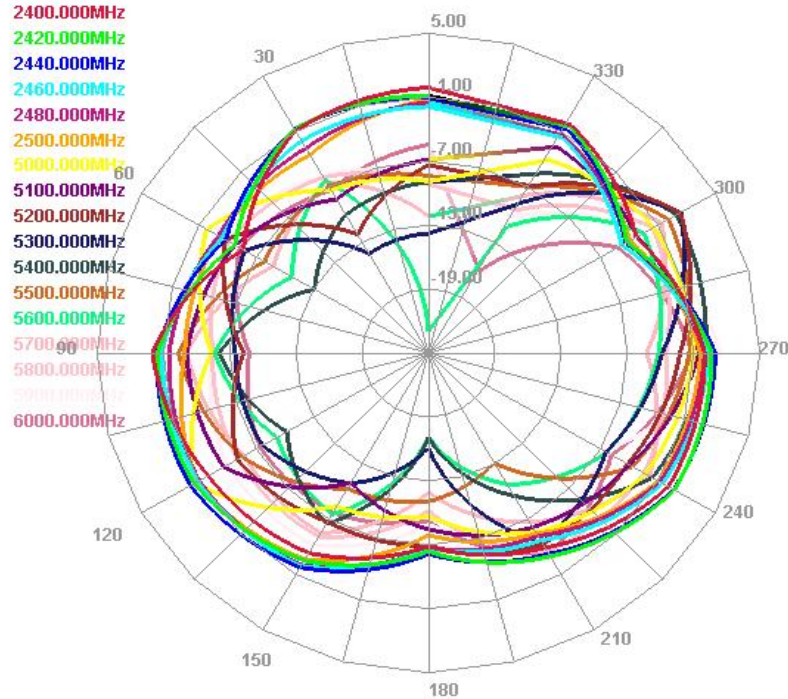
Horizontal



E1 Face



E2 Face



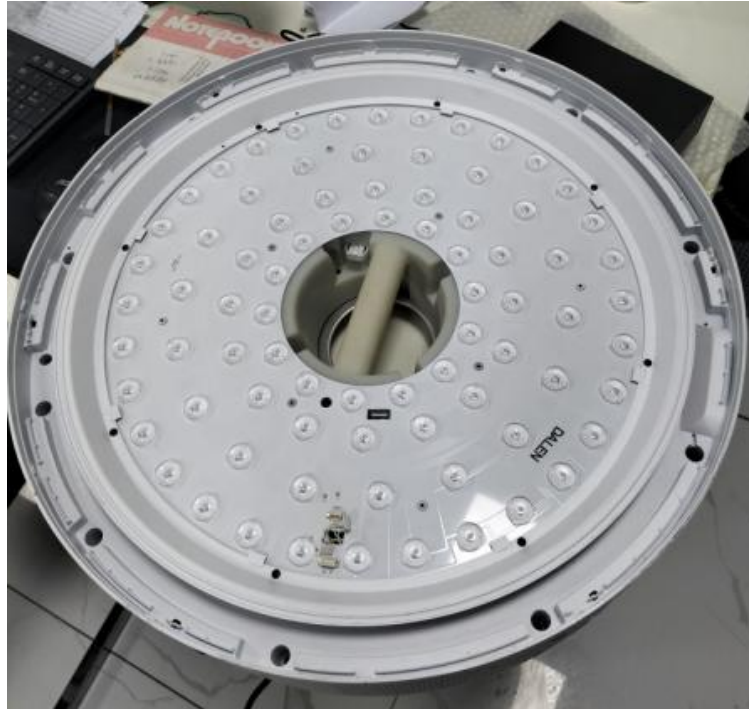
PART 7

Assembly method



PART 8

Picture of complete machine





2022

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