深圳市星源创科技有限公司
SHENZHEN Xingyuanchuang TECHNOLOGY CO.,LTD
ANTENNA

天线测试报告

Antenna Test Report

TC：万汇芯源
MN：KP038
RF：蔡林满
MD：黄清清
MP：19918388579

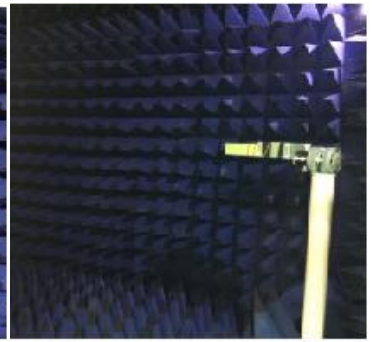
Date：2023.5.12.
REV :V1.0

测试信息
Test information

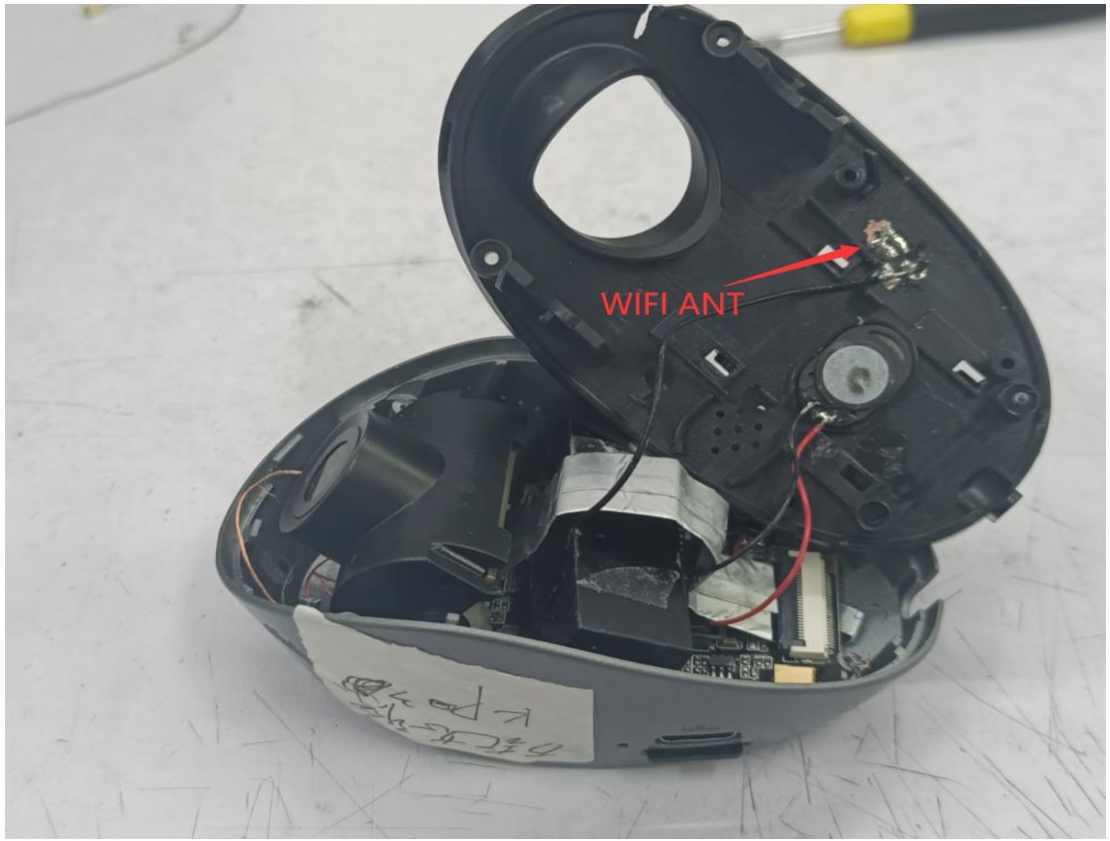
	Antenna band		Antenna state	Antenna form	Matchc hanges	Note
Main ANT	2G					
	3G				NO	
	4G					
AUX ANT	BT/WIFI	2.4G/5G	FPC	PIFA	NO	
	GPS				NO	
	DIV				NO	

测试环境
Test environment

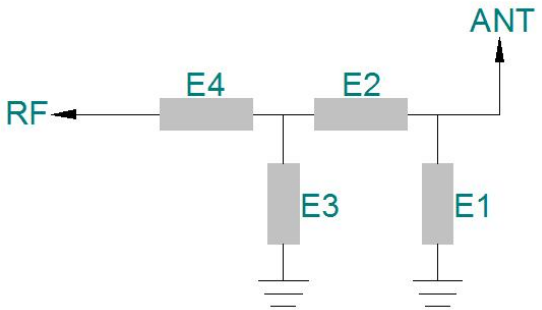
	测试项目	测试设备
S参数 （S-parameter）	1.电压驻波比(VSWR) 2.回波损耗（Rrtun Loss）	网络分析仪：Agilent8753ES
2.有源测试 (Active)	1.发射功率（TRP） 2.接收灵敏度（TIS） 3.屏灭/屏亮	1.暗室：5*3*3m（3D）Chamber 2.综测仪：Agilent8960 CMW500
3.无源测试 （Passive）	1.天线增益(Gain) 2.天线效率（Efficiency）	1.暗室：5*3*3m（3D）Chamber 2.网络分析仪：Agilent 8753ES



天线位置
Antenna position



匹配电路
Matching circuit

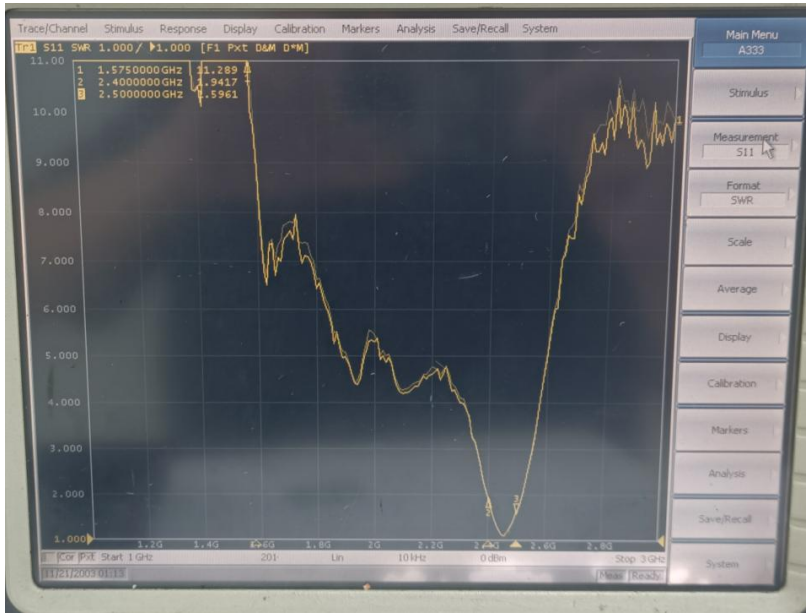


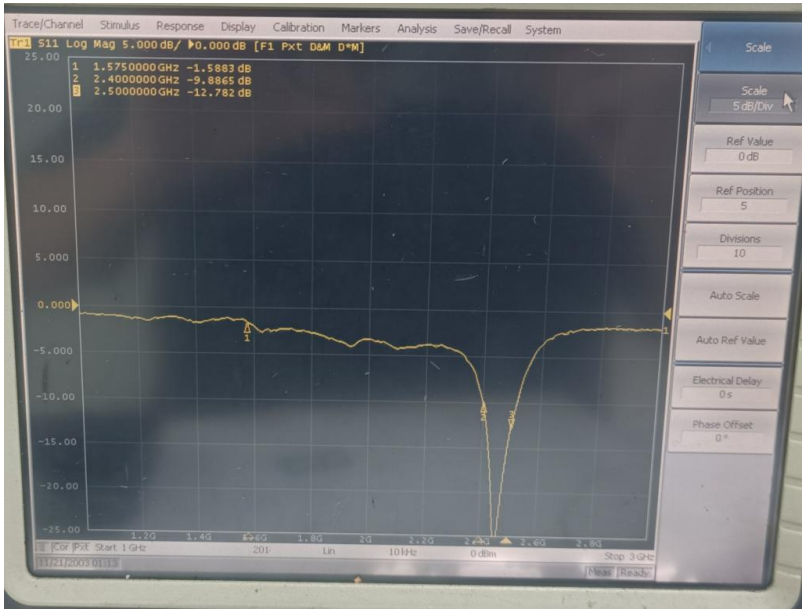
	电容（PF）	电感（NH）
E1(0402)		
E2(0402)		
E3(0402)		
E4(0402)		

匹配电路原理图&位号图

无源测试数据
Passive test data

ANT1 S11-VSWR&Return Loss





Frequency(MHZ)	2450	5200
VSWR	1.94	1.59
Return Loss(DB)	-9.88	-12.78

无源测试数据
Passive test data

ANT1 GAIN&Efficiency-WIFI2.4G/BT

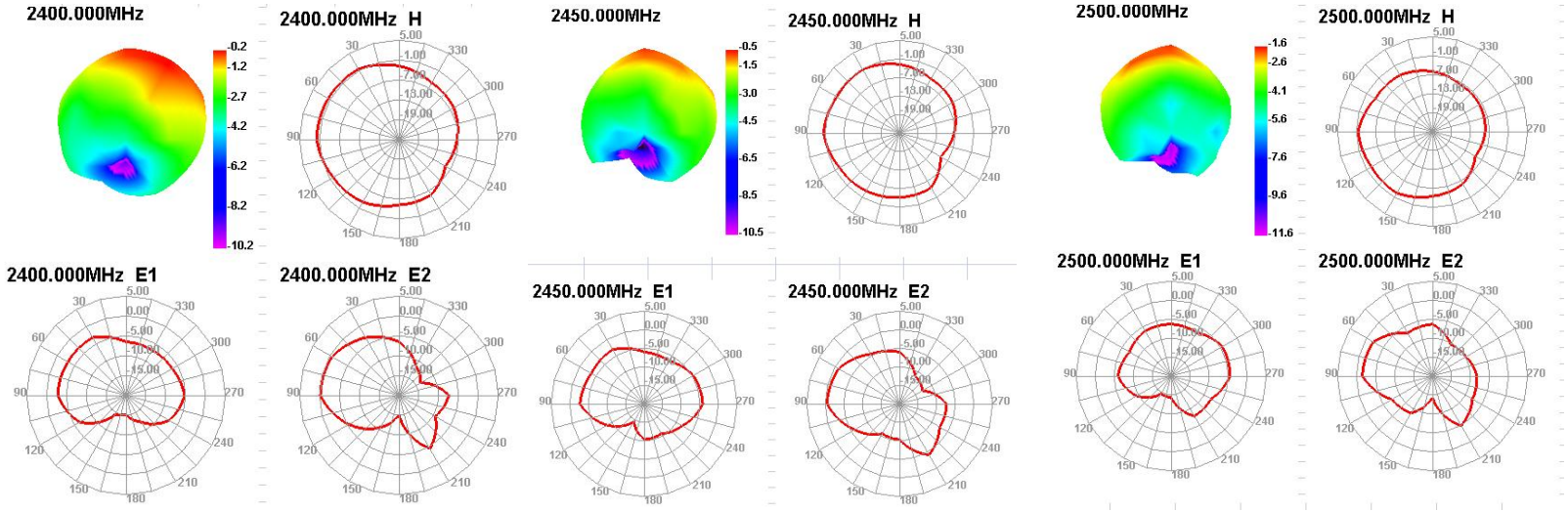
Passive Test 2.4GHz											
Fre.(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Effi(%)	33.03	32.89	32.76	33.23	34.25	32.07	30.74	30.23	27.49	24.31	25.15
Gain(dBi)	-0.16	-0.24	-0.32	-0.35	-0.26	-0.49	-0.60	-0.71	-1.19	-1.76	-1.57

Passive Test 5GHz											
Fre.(MHz)	5000	5100	5200	5300	5400	5500	5600	5700	5800	5800	5900
Effi(%)	40.57	43.18	46.56	48.55	49.81	46.99	43.95	41.88	36.64	36.88	35.73
Gain(dBi)	0.94	2.49	3.19	3.34	4.25	3.11	2.57	1.60	0.36	0.55	0.57

无源测试数据
Passive test data

ANT1 Direction of figure(2.4/BT)

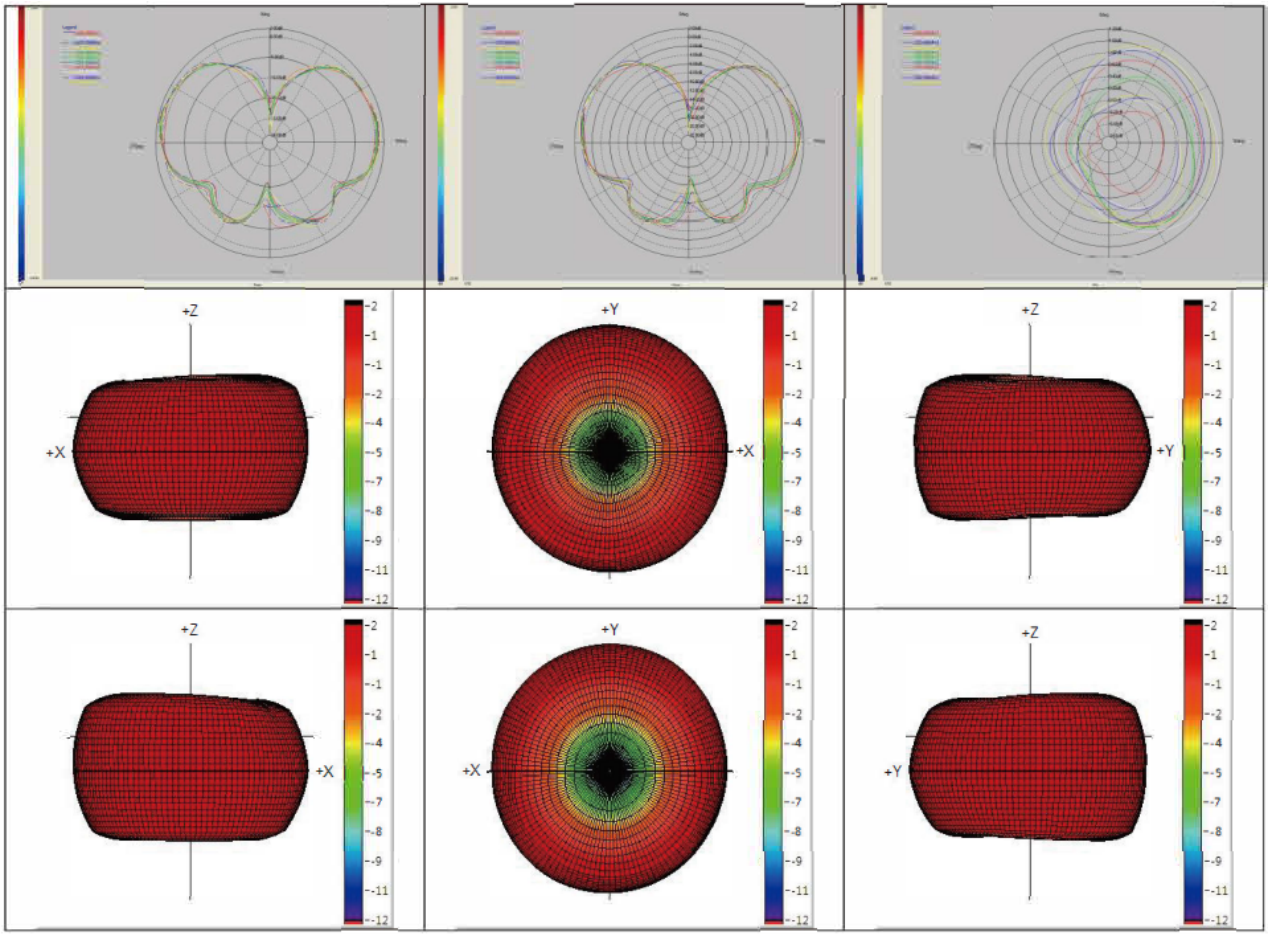
2.4GHz:



无源测试数据
Passive test data

ANT1 Direction of figure(5GHz)

5GHz:



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