

本次报告主要目的: 优化板载天线匹配参数, 提升天线性能

The main purpose of this report: Optimize the onboard antenna matching parameters to improve antenna performance

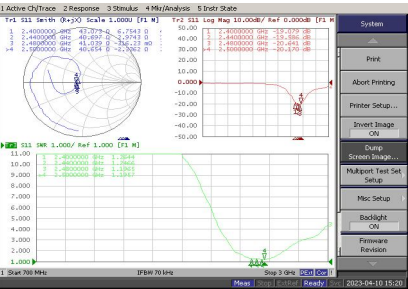
本次报告主要结论: 优化匹配后, 整机天线无源性能与OTA数据都很好

The main conclusion of this report: After optimization and matching, the passive performance and OTA data of the whole antenna are good

本次报告重点注意事项: 功率电感已更换, 电感料号: HDC0603Y100DMT

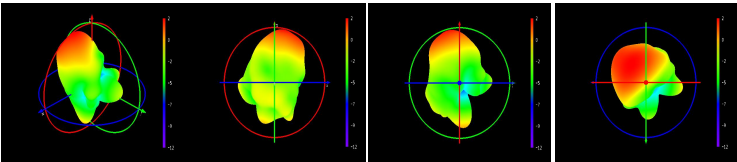
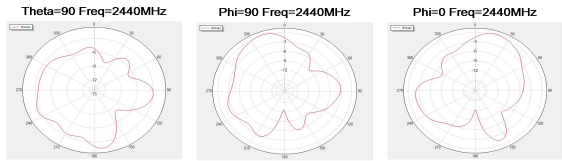
Key points to note in this report: The power inductor has been replaced. The inductor part number is HDC0603Y100DMT

天线阻抗参数测试情况
Antenna impedance parameters test condition



天线无源效率测试情况 (附3D&2D方向图)
Antenna passive efficiency test (with 3D&2D direction chart)

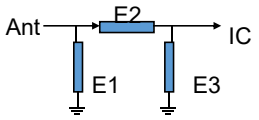
频点MHz	增益(dBi)	效率(dB)	效率 (%)
	Gain (dBi)	Efficiency (db)	Efficiency (%)
2400	0.93	-3.44	45.28
2410	1.11	-3.34	46.3
2420	1.3	-3.22	47.64
2430	1.42	-3.11	48.89
2440	1.5	-2.98	50.31
2450	1.56	-2.86	51.75
2460	1.58	-2.79	52.61
2470	1.5	-2.79	52.62
2480	1.4	-2.82	52.18
2490	1.3	-2.9	51.34
2500	1.17	-3	50.16
平均值	1.37	-3.04	49.73



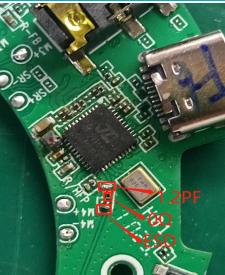
整机有源测试数据3D场型图/苹果图			
Complete machine active test data 3D field pattern/apple chart			
自由数据/Free data			
	Channel	TRP (dBm)	TIS (dBm)
FS	CH 0	4.73	-91.04
	CH 39	5.07	-92.48
	CH 78	5.54	-92.67

头模数据/Head module data			
	Channel	TRP (dBm)	TIS (dBm)
BH	CH 0	4.04	-90.45
	CH 39	4.37	-91.23
	CH 78	4.79	-91.76

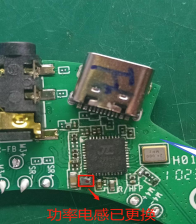
天线匹配电路
Antenna matching circuit

Ant → 

Element	Value
E1	N/A
E2	0Ω
E3	1.2PF



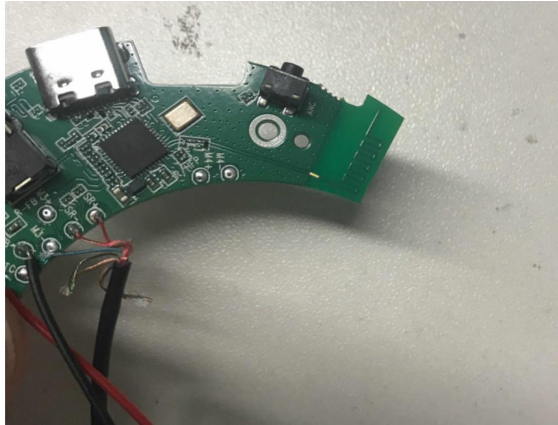
物料更改
Material change



功率电感料号/Power inductor

总结
conclusion

优化匹配后，整机天线无源性能与OTA数据都很好。
After optimization and matching, the passive performance and OTA data of the whole antenna are good.



鸿基无线通讯（深圳）有限公司
Hongji Wireless Communication (Shenzhen) Co., Ltd.
深圳市光明区观光路华强创意产业园8栋B西12楼
Shenzhen Guangming District Guangguang Road Huaqiang Creative Industry Park Building 8, Unit B West, 12th Floor