

深圳市迪比通通讯设备有限公司

Shenzhen DBT Telecommunication Technology CO.,LTD

天线测试报告



基本信息

客户名	海葳特	备注
项目名	923	
日期	2020/9/27	
调试人员	黄俊杰	
频段	BT 2.4-2.483GHz	

报告提纲

报告版次	报告时间	解决问题
V1	2020/9/27	给出首版天线测试数据
V2	2020/10/30	换板给出天线测试数据
V3		
V4		
V5		
V6		
V7		
V8		

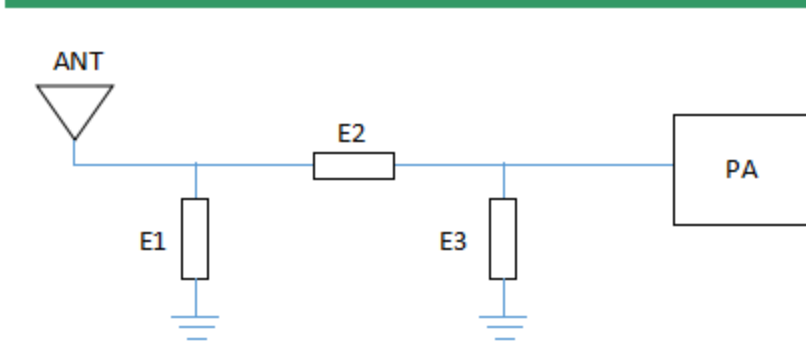
天线测试报告

注意事项：匹配电路

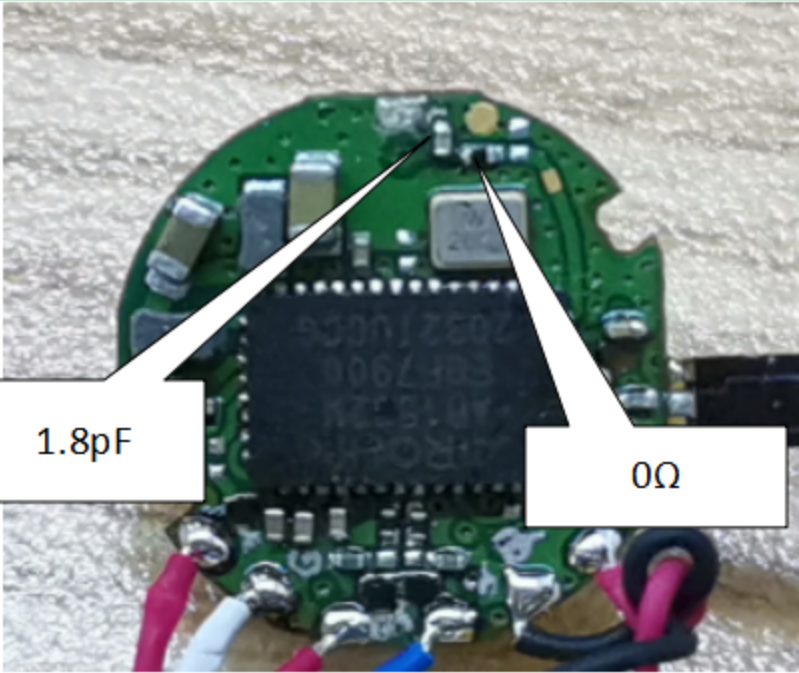
本次报告主要目的：给出调试机测试数据

结论：天线OTA参数满足实际使用需求

匹配电路



Element	左耳	右耳	
E1(0201)	1.8pF	1.8pF	
E2(0201)	0Ω	0Ω	
E3(0201)	NC	NC	



1.8pF

0Ω

OTA测试数据

Test Result	Bluetooth TRP		
	0	39	78
Frequency (MHz)	2402	2441	2480
Txp Ave(dBm)	4.34	5.92	6.22

Test Result	Bluetooth TIS		
	0	39	78
Frequency (MHz)	2402	2441	2480
Sens Ave(dBm)	-90.55	-90.87	-89.8

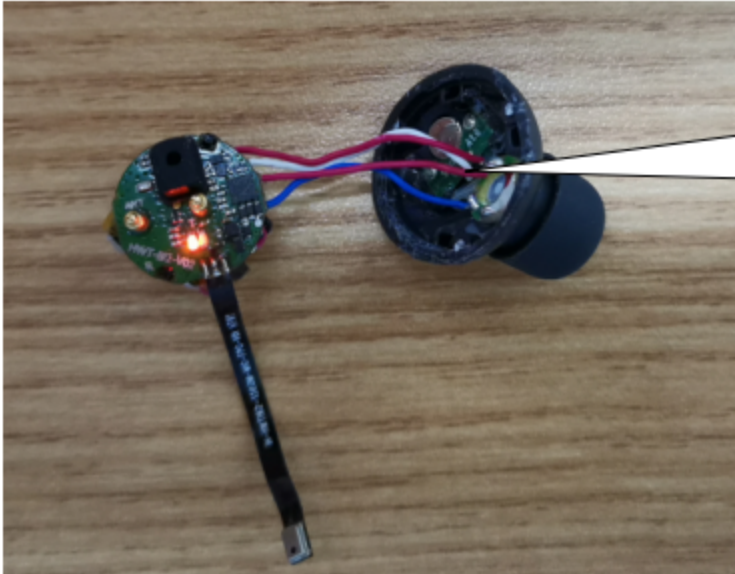
Test Result	Bluetooth TRP		
	0	39	78
Frequency (MHz)	2402	2441	2480
Txp Ave(dBm)	5.27	5.76	5.15

Test Result	Bluetooth TIS		
	0	39	78
Frequency (MHz)	2402	2441	2480
Sens Ave(dBm)	-90.58	-90.13	-88.7

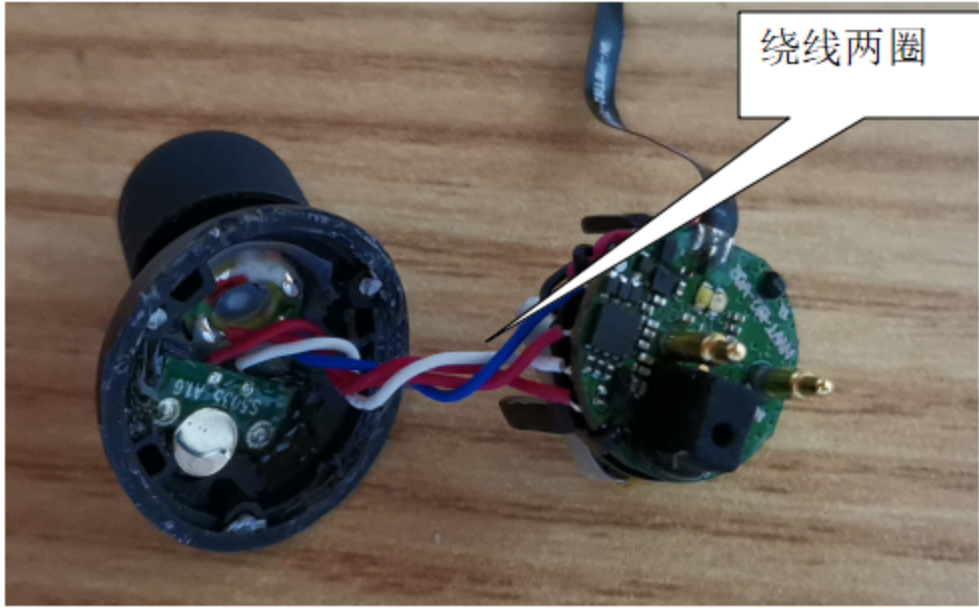
天线装配



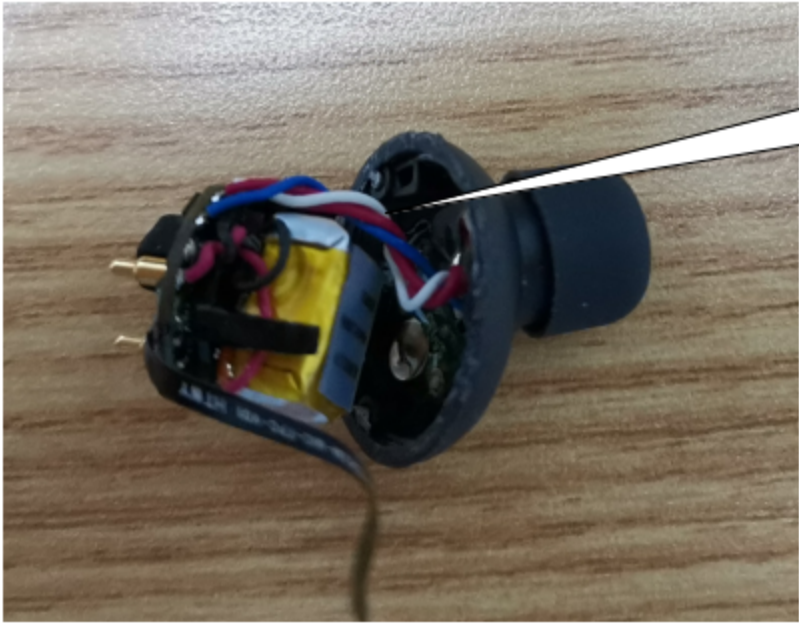
天线装配如图



测试机喇叭线长20mm，充电线长24mm



绕线两圈



线压在电池下方

实验数据分析与结论

天线OTA数据满足实际使用需求

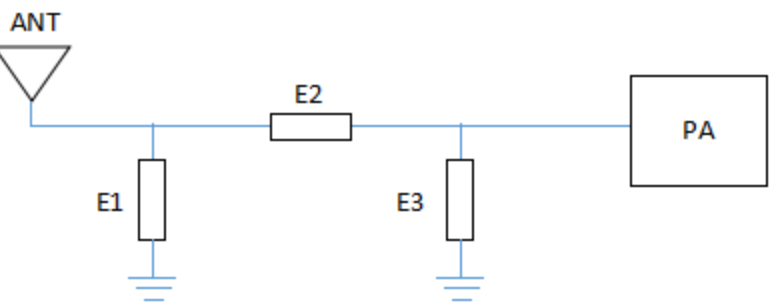
天线测试报告

注意事项：匹配电路

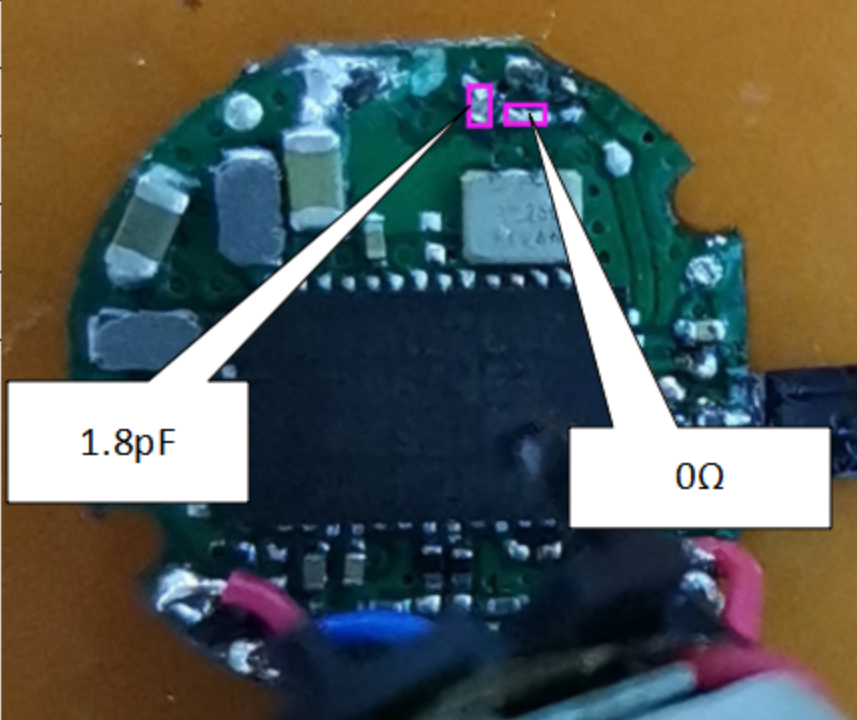
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结论：天线参数满足实际使用需求

匹配电路



Element	左耳	右耳	
E1(0201)	1.8pF	1.8pF	
E2(0201)	0Ω	0Ω	
E3(0201)	NC	NC	



主板传导

L

Test			
Result	0	39	78
Frequency (MHz)	2402	2441	2480
功率(dBm)	10.1	10.2	10.2
Test	Bluetooth TIS		
Result	0	39	78
Frequency (MHz)	2402	2441	2480
灵敏度(dBm)	-95	-95	-95

R

Test			
Result	0	39	78
Frequency (MHz)	2402	2441	2480
功率(dBm)	10.1	10.1	10.1
Test	Bluetooth TIS		
Result	0	39	78
Frequency (MHz)	2402	2441	2480
灵敏度(dBm)	-95	-95	-95

OTA测试数据

L

Test	Bluetooth TRP		
Result	0	39	78
Frequency (MHz)	2402	2441	2480
Txp Ave(dBm)	5.29	5.7	4.89
Test	Bluetooth TIS		
Result	0	39	78
Frequency (MHz)	2402	2441	2480
Sens Ave(dBm)	-89.56	-89.26	-88.37

R

Test	Bluetooth TRP		
Result	0	39	78
Frequency (MHz)	2402	2441	2480
Txp Ave(dBm)	4.35	4.78	4.78
Test	Bluetooth TIS		
Result	0	39	78
Frequency (MHz)	2402	2441	2480
Sens Ave(dBm)	-89.26	-89.23	-87.98

天线S11参数

L 天线形式：单极天线



R 天线形式：单极天线



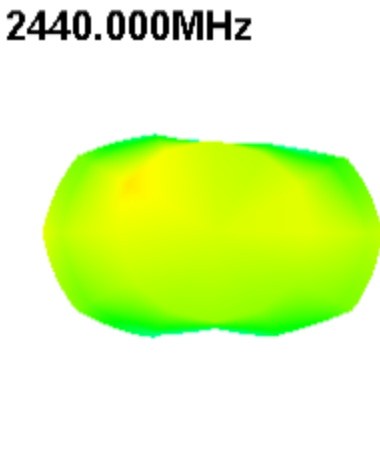
天线效率/增益/方向图

L

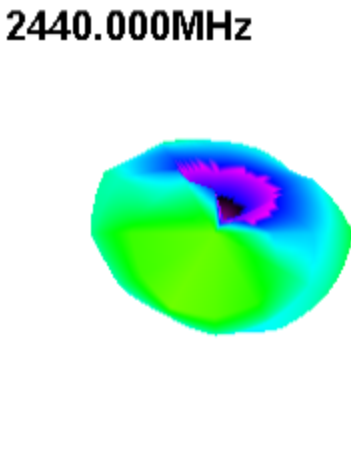
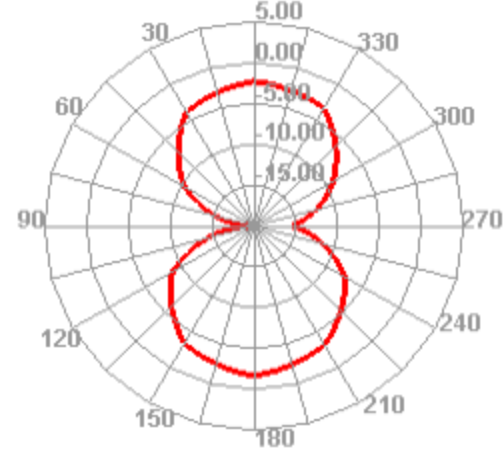
Freq (MHz)	Effi (%)	Gain (dBi)
2400	35.02	0.46
2410	37.65	0.78
2420	37.72	0.87
2430	39.26	0.77
2440	35.43	0.4
2450	35.77	0.26
2460	38.94	0.68
2470	39.12	1.18
2480	37.01	0.71

R

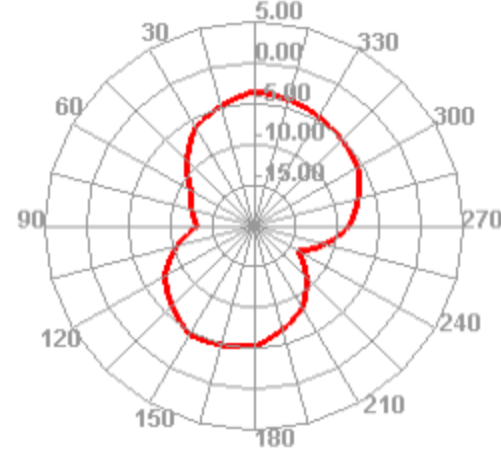
Freq (MHz)	Effi (%)	Gain (dBi)
2400	30.16	0.71
2410	33.53	0.91
2420	33.34	0.97
2430	35.32	1.12
2440	31.86	1.38
2450	32.42	1.28
2460	35.6	1.23
2470	37.57	1.39
2480	36.63	1.27



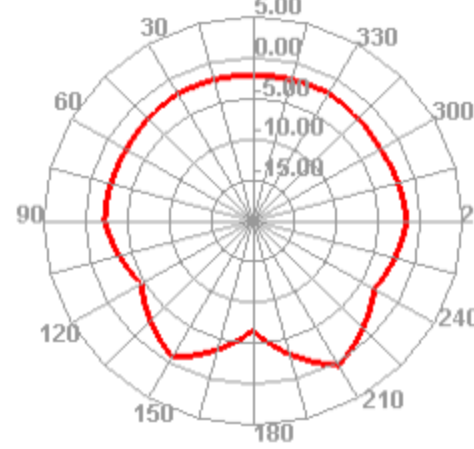
2440.000MHz H



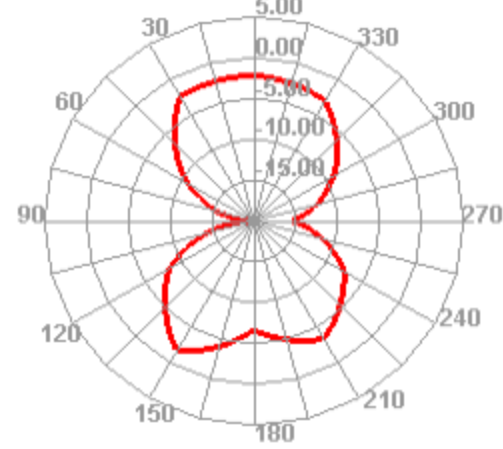
2440.000MHz H



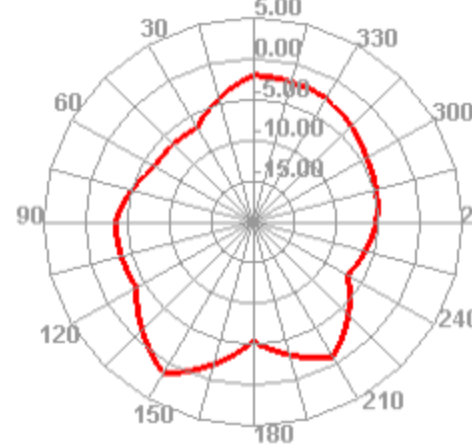
2440.000MHz E1



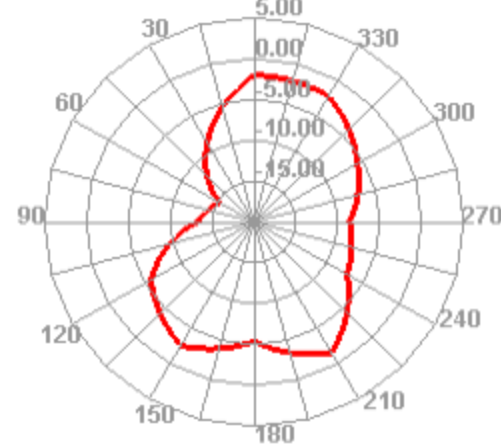
2440.000MHz E2



2440.000MHz E1



2440.000MHz E2



天线装配



天线装配如图

实验数据分析与结论

天线数据满足实际使用需求