



深圳市迪比通通讯设备有限公司

SHENZHEN DIBITONG TELECOMMUNICATION TECHNOLOGY CO.,LTD.

移动通信终端天线

Mobile communication terminal antenna

产品设计与制造规格书

Product design and manufacturing specifications

◆ 客户名称/ Customer: 沃莱科技

◆ 项目名称/Project: F12603LBF

◆ 物料名称/Name: BLE_ANT

◆ 天线材质/Antenna materials: PCB

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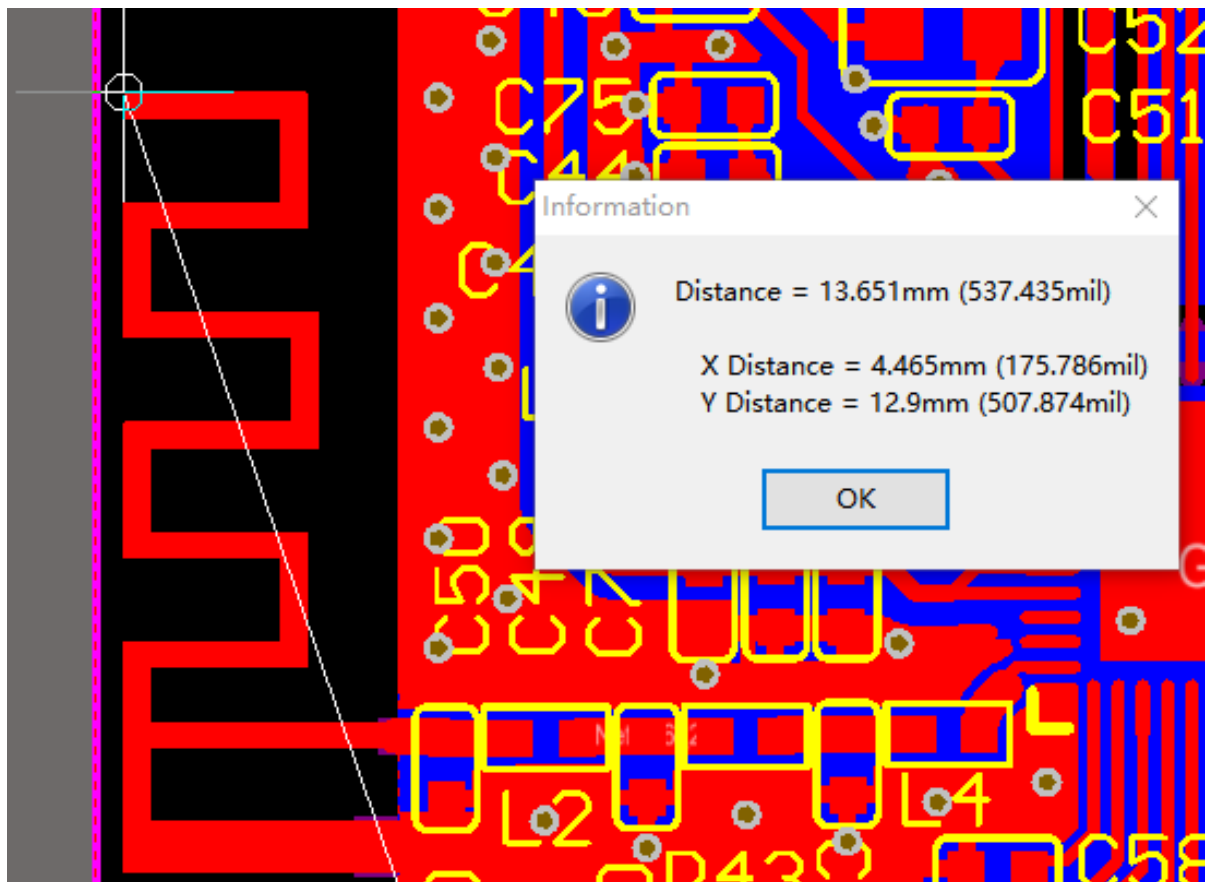
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1. 天线 2D 图/Antenna 2D diagram

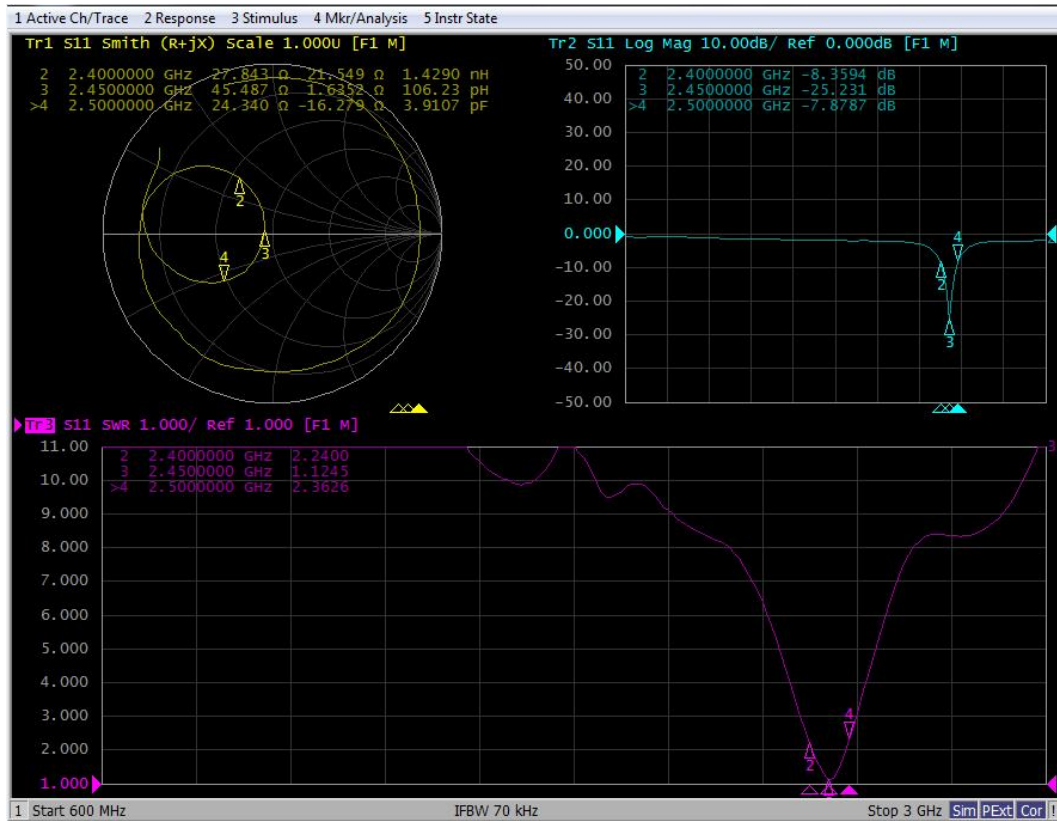


2.技术指标/ Technical target

A. 电气性能/Electrical Parameter	
工作频率范围/Frequency Range	2400~2500 MHz
驻波比/VSWR	2400~2500 MHz: ≤ 2.5
天线增益/Gain (Max)	2400~2500 MHz: -0.2 dBi
平均辐射效率/ Average radiation efficiency	2400~2500 MHz : 18.7%
阻抗/Input Impedance	50 ohm
B. 材料/ Material	
PCB	
C. 环境/Environmental Science	
工作温度/Working Temperature	- 30°C ~ + 85 °C
储藏温度/Storage temperature	- 30°C ~ + 85 °C

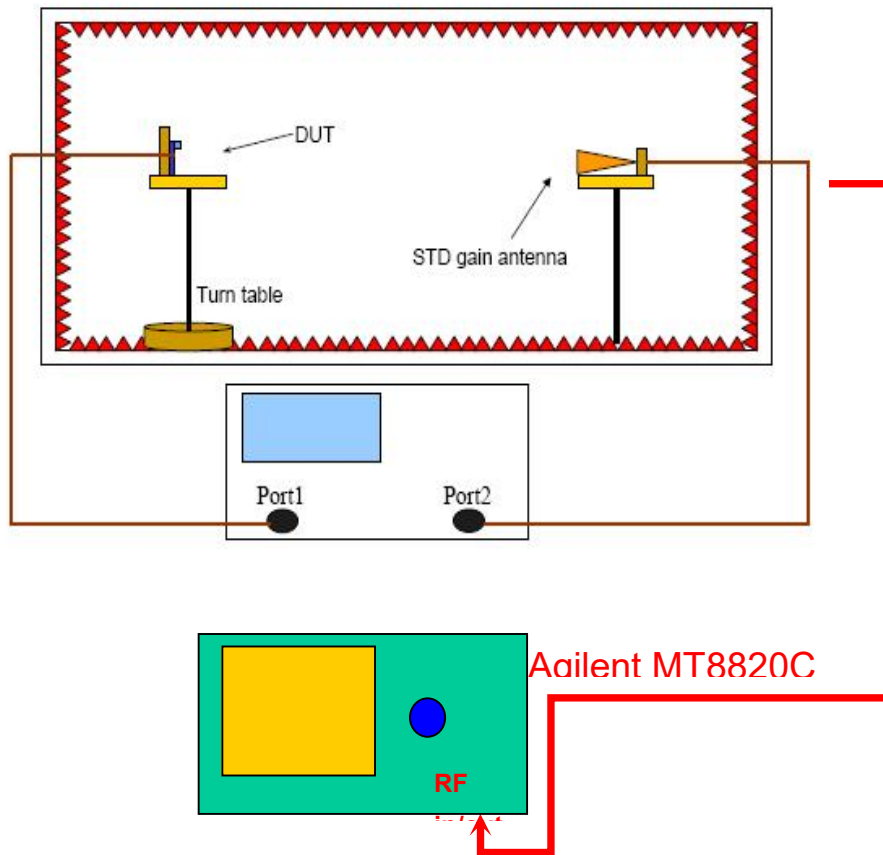
3.S11 驻波比 /回波损耗/阻抗测试结果

S11 SWR/Return loss/ Impedance test results

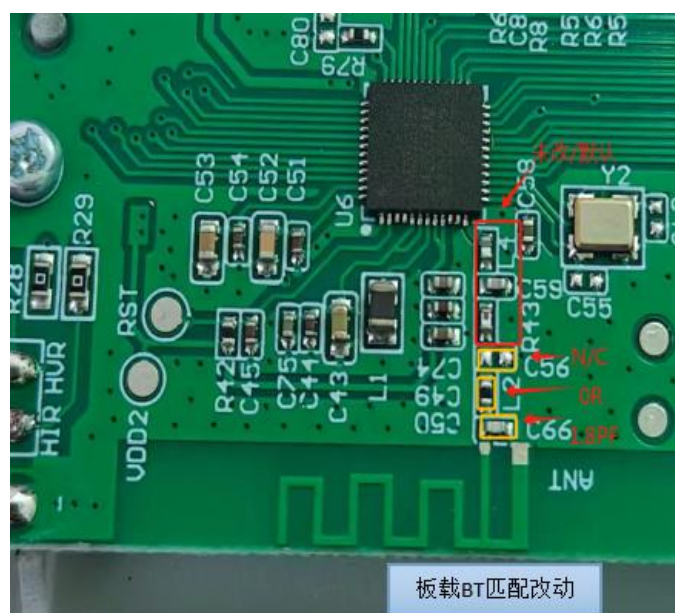


4.动态测试数据--- 天线安置在设备里/Dynamic test instructions - Antennas are placed in electronic scales

测试仪器/ Testing instrument : Anrits CMW500+ Anechoic Chamber 6X4X3m(3D-OTA)



5.匹配电路/Matching Circuit



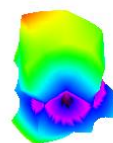
匹配有改动/The match has changed

6.天线实际测试数据/Antenna test report

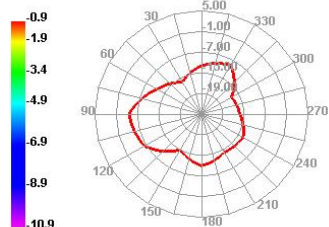
6.1)无源效率/增益/方向图/Passive Efficiency/Gain/Pattern

Freq (MHz)	Effi (%)	Gain (dBi)
2400	16.72	-0.88
2410	18.33	-0.48
2420	19.9	-0.29
2430	20.68	-0.2
2440	20.73	-0.24
2450	20.02	-0.37
2460	18.4	-0.81
2470	18.76	-0.58
2480	18.35	-0.91
2490	18	-0.78
2500	16.09	-1.54

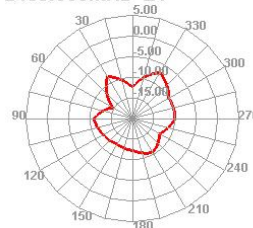
2400.000MHz



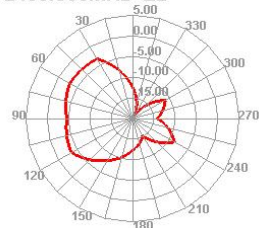
2400.000MHz H



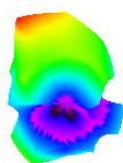
2400.000MHz E1



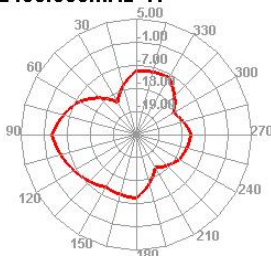
2400.000MHz E2



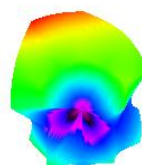
2450.000MHz



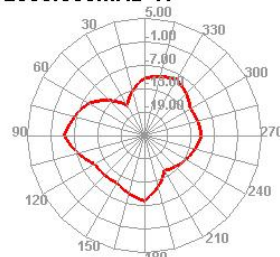
2450.000MHz H



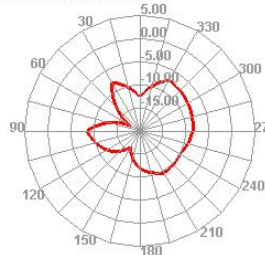
2500.000MHz



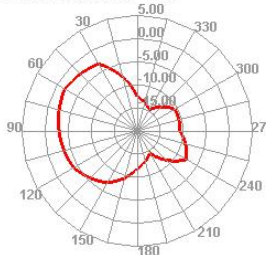
2500.000MHz H



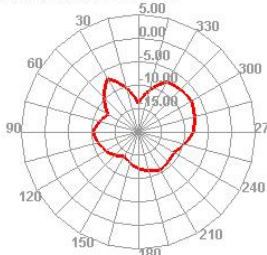
2450.000MHz E1



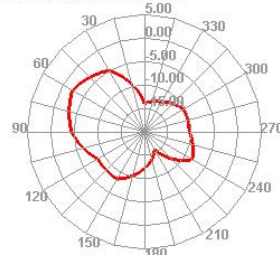
2450.000MHz E2



2500.000MHz E1



2500.000MHz E2



6.2)有源数据测试报告/Active data test report

Test Result	Bluetooth TRP		
	0	19	39
Frequency (MHz)	2402	2440	2441
TRP (dBm)	-6.24	-6.11	-7.21
Test Result	Bluetooth TIS		
	0	19	39
Frequency (MHz)	2402	2440	2441
TIS (dBm)	-89.43	-89.9	-87.92