



深圳市福伯特电子有限公司

客 户：绿联
机 型： BT55
芯 片： JL7018F

制作人：Andy

日 期：2024. 12. 20

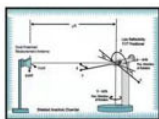
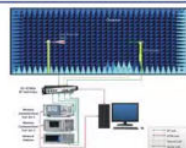


OTA LAB

拥有 OTA 实验室 5m * 3m*3m 单探头一座，频率范围 400MHz-6GHz，支持无源，GSM,CDMA,WCDMA,TD,LTE,BT,WIFI,GPS,NB-IOT等有源测试，拥有模拟人头手测试设备。

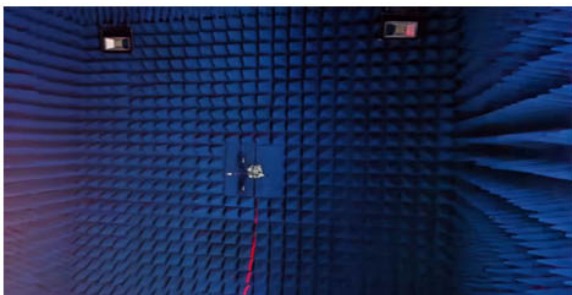
微波暗室测量系统

我司微波暗室是全球最先进的3D测量系统之一。它可以完成无源天线方向图、增益、效率以及有源设备的3D/2D TRP&TIS的精确测量。测试适用范围：OTA 有源测试：BT/GPS/WiFi/2G/3G/LTE，无源测试：0.4GHz-6GHz。能同时满足被测天线有源与无源性能测量。符合OTA性能测量规范。



Microwave darkroom measurement system

The microwave anechoic chamber is the most advanced 3D measurement system in the world. Which can measure passive antenna pattern, gain, efficiency and active 3D/2D TRP&TIS accurately. Test scope of application: OTA Active: BT/GPS/WiFi/2G/3G/LTE, Passive 0.4GHz-6GHz. The chamber is compliant to OTA performance measurement specifications, which is designed for both active and passive test.



报告版本提纲

机型类别	蓝牙接收器	
调试频段及材质需求	BT	2.4GHz
	材质	PCB
调试性能要求	以客户实际体验及暗室数据为准	
版本	V1.0	

样机外观图



蓝牙电源芯片传导

TRM/CA/01/C (Output Power)

Packet Length Tested: DH1

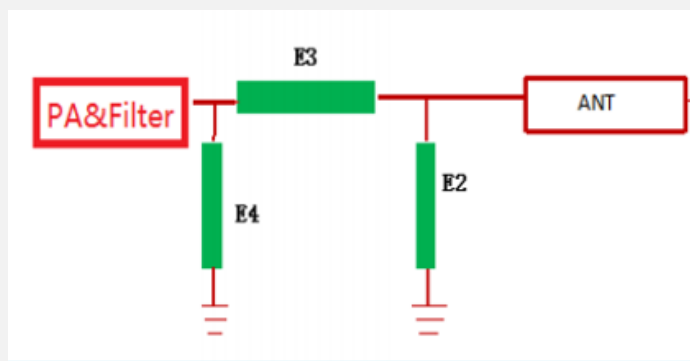
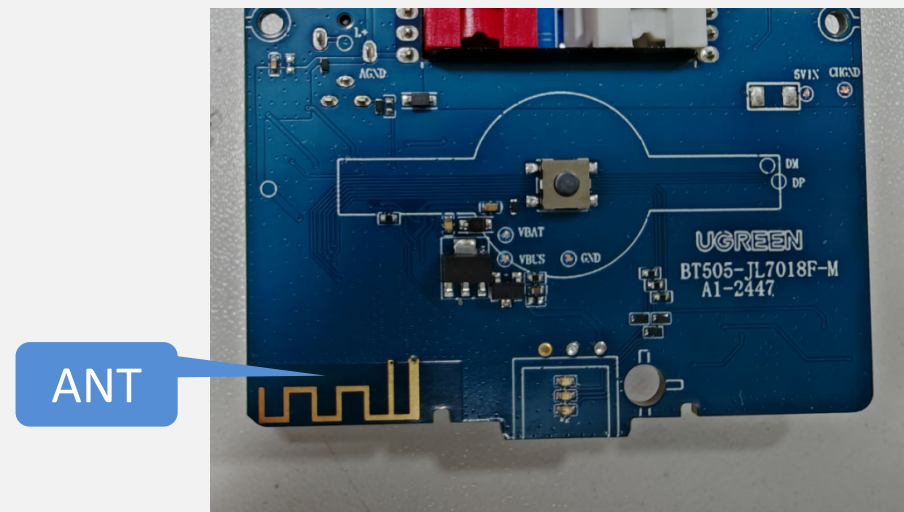
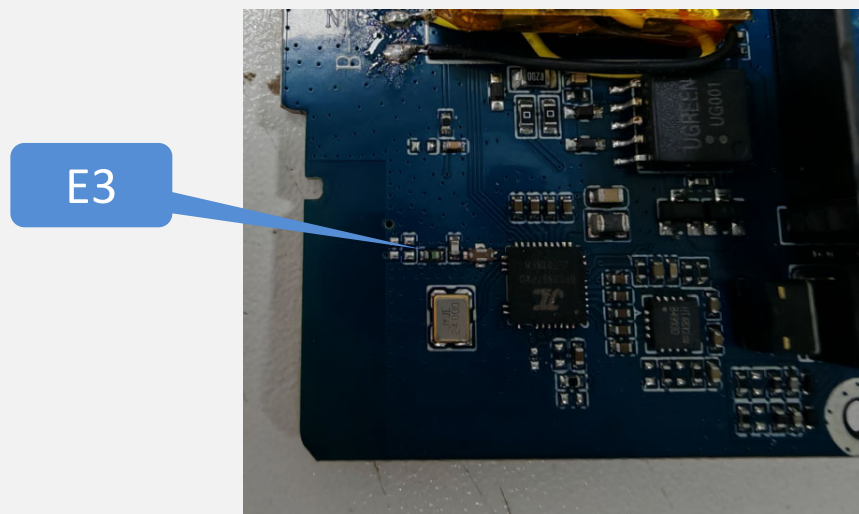
Hopping OFF	<u>Low</u>	<u>Med</u>	<u>High</u>	<u>Limits</u>
Average Power	5.99 dBm	5.64 dBm	5.75 dBm	
Max Power	6.01 dBm	5.65 dBm	5.76 dBm	< 4.00 dBm
Min Power	5.98 dBm	5.63 dBm	5.74 dBm	> -3.00 dBm
Peak Power	6.11 dBm	5.74 dBm	5.86 dBm	< 6.00 dBm
Total Packets Failed	10	10	10	
Total Packets Tested	10	10	10	
Result	Fail	Fail	Fail	

TRM/CA/08/C (Initial Carrier)

Packet Length Tested: DH1

Hopping OFF	<u>Low</u>	<u>Med</u>	<u>High</u>	<u>Limits</u>
Average Offset	1.0 kHz	1.5 kHz	3.7 kHz	
Max Offset	2.1 kHz	2.5 kHz	6.4 kHz	<= 20 kHz
Min Offset	-0.4 kHz	0.4 kHz	0.2 kHz	<= 20 kHz
Total Packets Failed	0	0	0	
Total Packets Tested	10	10	10	
Result	Pass	Pass	Pass	

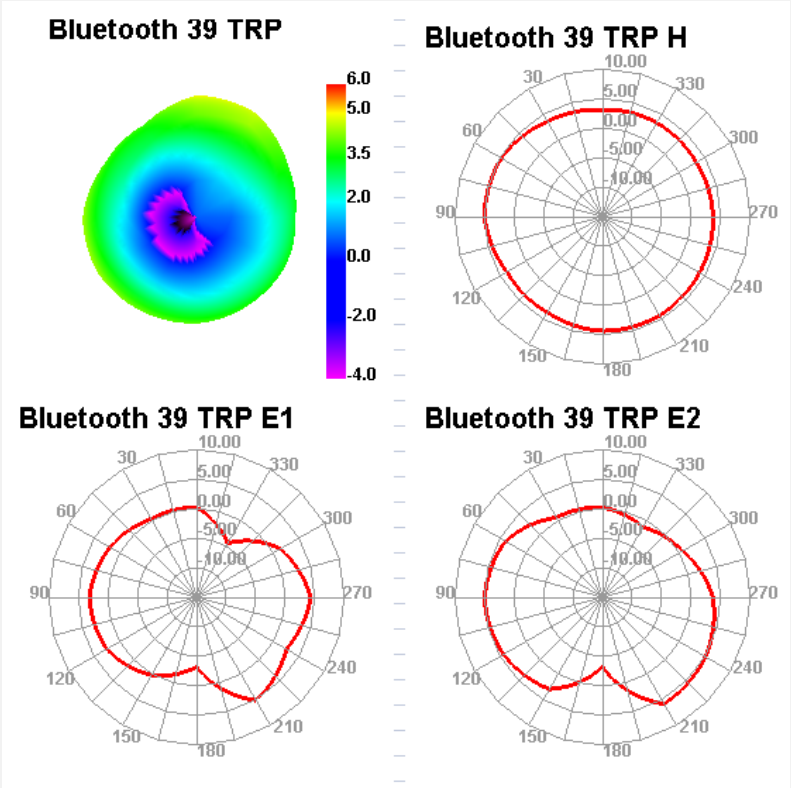
蓝牙电源（兀型电路）



Element	parameter value
ANT	PCB
E4	1pf
E3	1.8nh
E2	NC

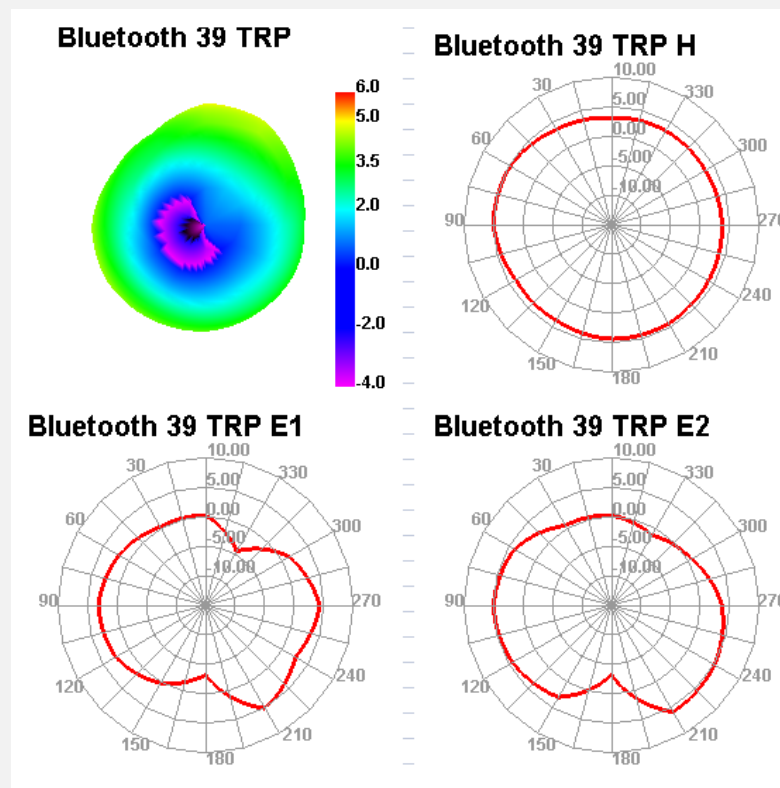
天线效率

Passive Test For BT			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	36.20	-4.41	-1.24
2410	38.69	-4.12	-1.03
2420	40.37	-3.94	-1.08
2430	42.53	-3.71	-0.98
2440	45.51	-3.42	-0.71
2450	46.31	-3.34	-0.93
2460	45.34	-3.44	-1.37
2470	38.86	-3.29	-1.08
2480	38.34	-3.16	-0.48



有源测试

R				
Test	Bluetooth TIS			
Result	0	39	78	
Frequency (MHz)	2402	2441	2480	
TRP (dBm)	2.08	3	2.54	
TIS (dBm)	-89.97	-90.72	-91.52	





谢谢，合作愉快！

Thank You!

The Concepts National Income And National Product Have Roughly The Same Value And Can Be Used Interchangeably If Our Interest Is In Their

