

# Antenna Test Report

For

Project BP71

Version:

<b>Customer</b>	<b>联雅</b>	<b>Project</b>	<b>BP71</b>
<b>Band</b>	<b>BT</b>	<b>Color</b>	
<b>Issued by</b>	<b>LH</b>	<b>Checked by</b>	
<b>Confirmed by</b>		<b>Date</b>	<b>2024.08.22</b>

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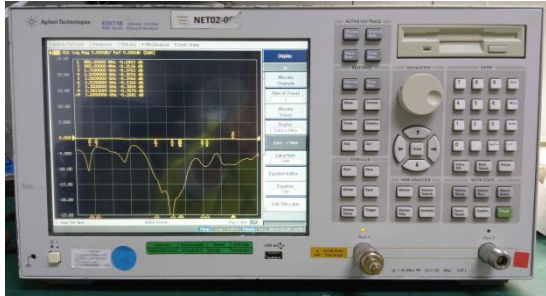


一. Test Instrumentation and item(测试设备及项目)

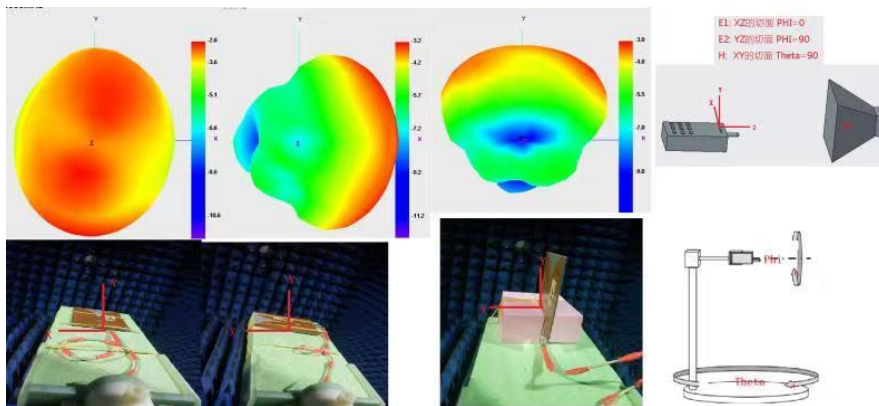
类别 (Class)	测试项目 (Test item)	设备 (Equipment)
1. S parameter	1. 回波损耗(RL) 2. 驻波比 (VSWR) 3.史密斯原图(Smith chart)	网分 (VNA) : Agilent E5071B  R&S ZVB8  Protek A333
2. 耦合测试 (Coupling testing)	1. 发射功率 (MAX Power) 2. 接收灵敏度 (MIN Sens)	1.2G/3G Tester: Agilent 8960 2.The coupling box: TESCOM TC-5060A 3. 3D Chamber: ETS 3D Chamber (5x3x3)
3. 3D 无源测试 (Passive Test)	1. 效率 (Effeciency) 2. 增益 (Gain) 3.辐射方向图 (radiation pattern)	1. 3D Chamber: TEM24 3D Chamber(5x5x5)  ETS 3D Chamber (5x3x3) 2. 网分 (VNA) : Agilent E5071B  R&S ZVB8
4.3D 有源测试 (Active Test)	1. 3D 功率 (TRP) 2. 3D 灵敏度 (TIS) 3.吞吐率 (Throughput rate)	1. 3D Chamber: TEM24 3D Chamber(5x5x5)  ETS 3D Chamber (5x3x3) 2.2G/3G Tester: Agilent 8960 3.4G Tester: MT8820C/CMW500 4.WIFI/BT/NB-iot Tester: CMW500 5. 5G Tester: SP9500-CTS 6.Head: HEAD-P10 (FACE-P10)



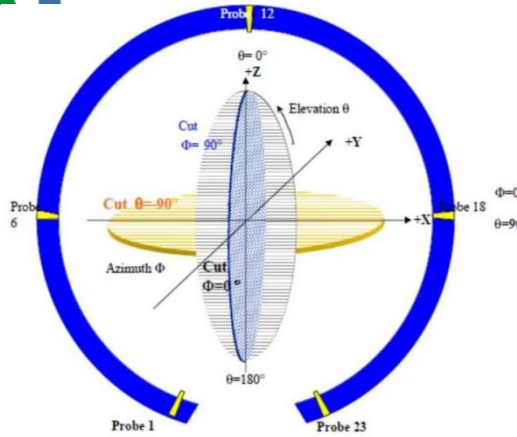
深圳市国质信网络通讯有限公司  
ShenZhen NQI network communication ltd



## 二. Chamber coordinate axis (暗室坐标)



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### 三. Definitions (定义)

VSWR: Voltage Standing Wave Rate

RL: Return loss

TRP: total radiated power

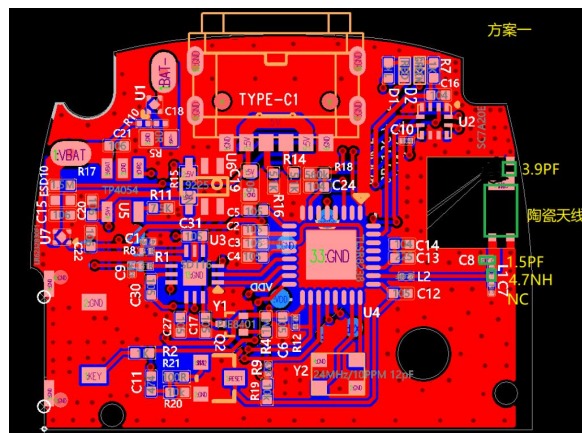
TIS: total isotropic sensitivity

### 四. Cell-Phone Photo and Dealing Method (手机图片及环境处理)



喇叭线纹线如图所示摆放

### 五. Matching Circuit Description (匹配描述)

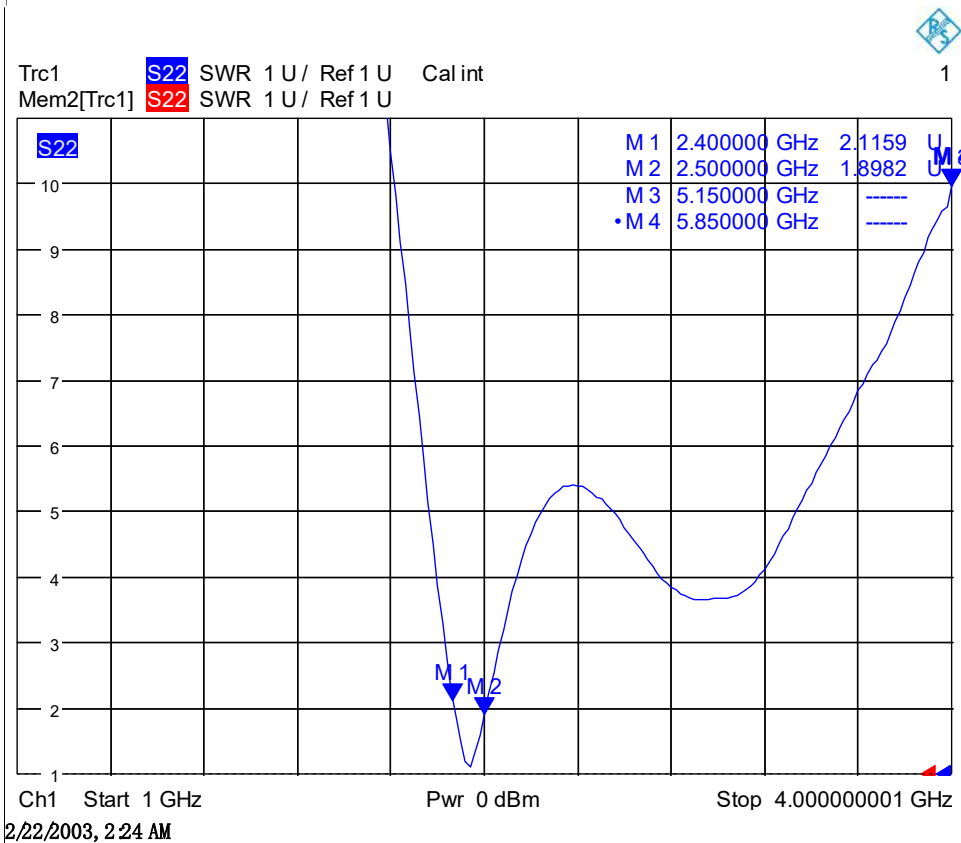
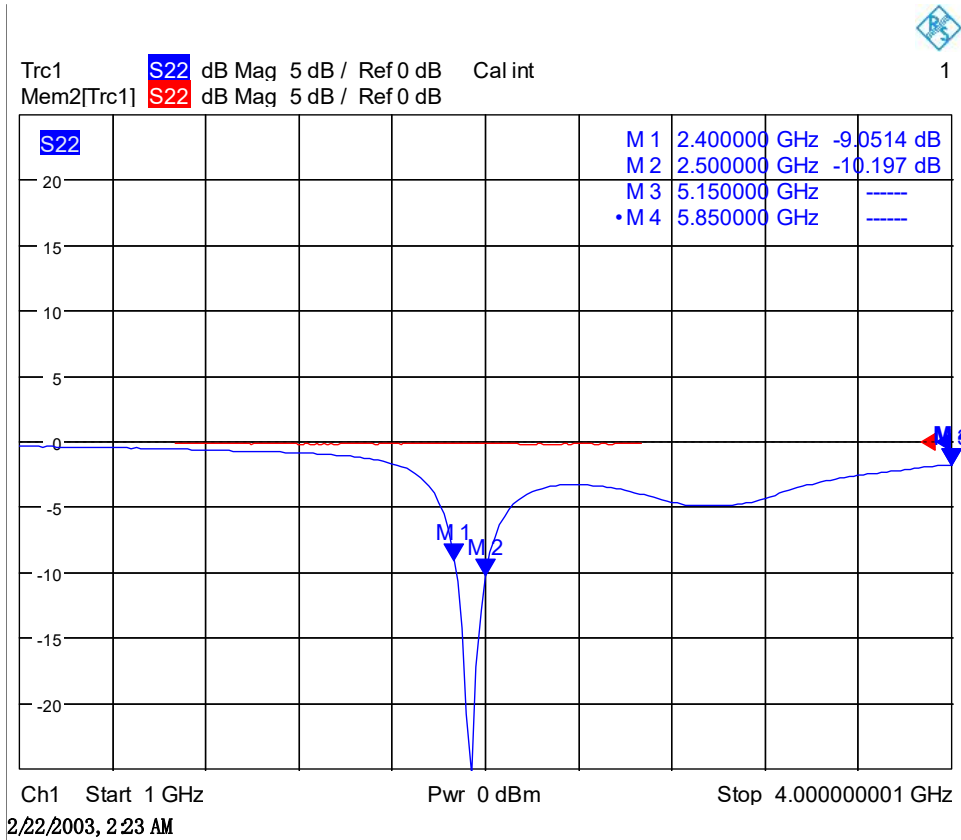


Gain: 2.34dBi



## 六. Passive Test (无源测试)

### 6.1. RL/VSWR (回波损耗/驻波比)



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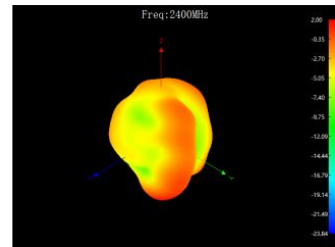
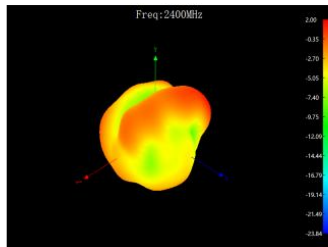
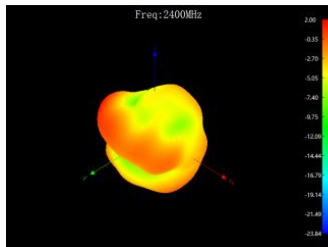




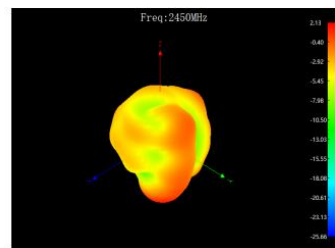
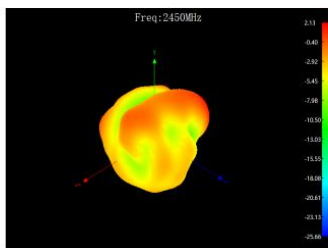
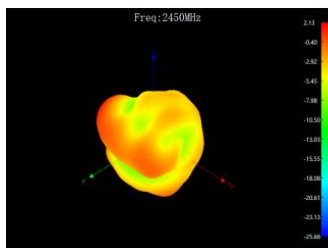
## 6.2.Efficiency、Gain、 Radiation pattern

Freq (MHz)	Effi (%)	Gain (dBi)
2400	44.87	2
2410	43.65	1.73
2420	45.71	2.34
2430	43.45	1.96
2440	44.06	1.94
2450	42.66	2.13
2460	44.16	2.26
2470	43.75	2.34
2480	40.64	1.96
2490	41.3	2.5
2500	41.02	2.32

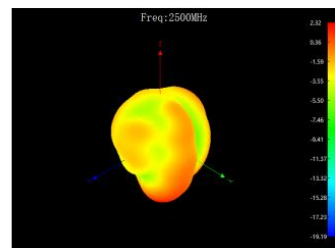
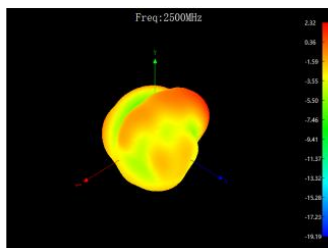
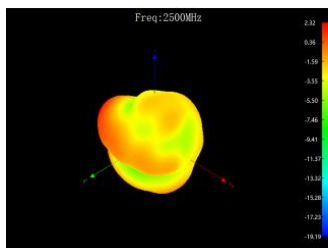
### 2400



### 2450



### 2500



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## 七. TRP&TIS

NQIANT TRP&TIS parameter Summary of BP71				
BLE	Test	Bluetooth TRP		
	Result	0	19	39
	TRP (dBm)	2.54	1.49	-0.76
	TIS (dBm)	-86.84	-86.99	-85.99

## 八. Field testing (场测或实测)

field test result (场测结果)	
Test site (测试场地): Vacant lot outside the company gate (国质信门口空地)	
Cell-phone (测试手机): 苹果 8plus	
The teser (测试员): LH	
Height of mobile phone stand (手机支架高度): 1.2m	
测试结果	
	Actual test distance (实测测试距离)
	暂未场测
备注:	