

Model:N/A
Ant Type:PCB Antenna

1、规格 Specification

报告主要提供 BT\WIFI 天线的无源性能参数的测试。
The report focuses on the passive performance parameters of BT\WIFI antennas.

2、电器性 Electrical

2-1 规格标准 Specification standards

WIFI 天线工作频段为 2400MHz-2500MHz 在此频段产生谐振。下表是海磁通为设计 L5-WIFI 天线的量产性能测试指标。
The WIFI antenna operates in the 2400MHz-2500MHz frequency band and resonates in this band.
The following table shows the production performance of L5-WIFI antenna designed by Magnetron.

天线 Ant	频率 (MHz)	VSWR
WIFI /BT	2400-2500	
		≤ 2.0

2-2 天线的匹配电路 Matching circuit for antenna

无匹配 NC

3、驻波比（VSWR）的测试 Testing of VSWR

3-1 测试的设置 Test setup

VSWR 测试装置依次的连接为：

E5071B 网络分析仪

→

50 欧姆的同轴 Cable

→

170mm 长的铜管

→

测试治具

。

The connections of the VSWR test set in sequence are

E5071B

 →

50 Ω Cable

 →

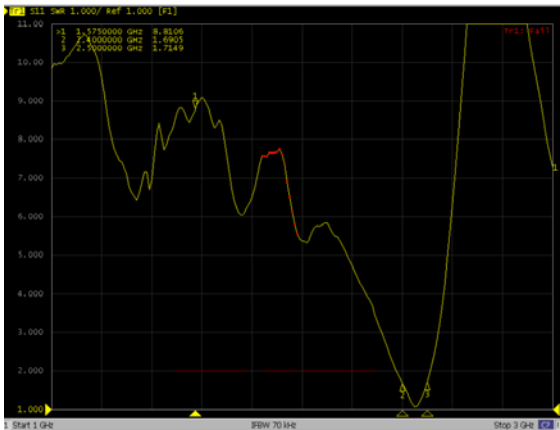
170mm Copper tube

 →

DUT

测试治具的处理：从手机 PCB 上天线 50 欧姆测试点处用一根硬质电缆引出 SMA-J 接头，与套有扼流圈的铜管连接，再依次连接其他装置。
Handling of the DUT: From the antenna test point on the PCB, a rigid cable leads to the SMA-J connector, which is connected to a copper tube sleeved with a choke, and then to the other devices in turn.

3-2 测试结果 Test Result



4 有源测试的设置 Setup of active tests

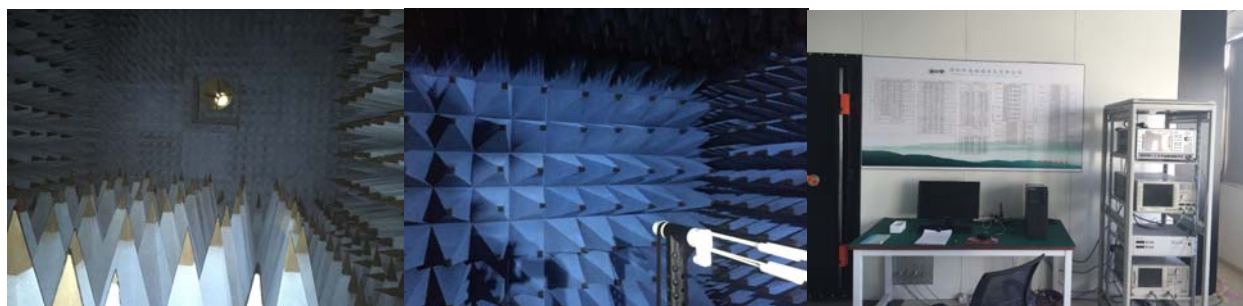
有源测试装置依次的连接为: Agilent E5062A → 50 欧姆的同轴 Cable → EST 远场测试系统 → 待测试手机。

The active test set is connected sequentially as Agilent E5062A → 50 Ω Cable → EST → DUT

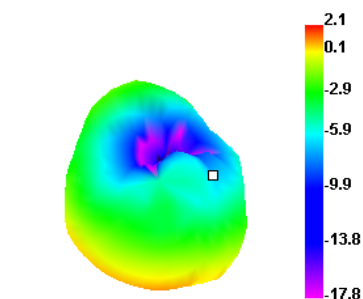
4-1 测试的场地 Site of the test

海磁通采用国内最先进的 3D/2D ETS 微波暗室测试系统, 测试方式属于远场测试, 频率范围为 600MHz—6GHz, 暗室屏蔽衰减在-120dBm,

Haicitong adopts the most advanced 3D/2D ETS test system in China, which belongs to the far-field test, the frequency range is 600MHz-16GHz, and the shielding attenuation of the darkroom is -120dBm.

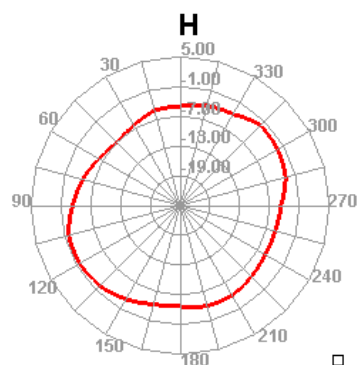


4-2 测试结果 Test Result

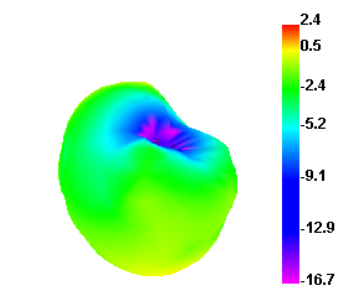


2400MHz

Gain:2.17dBi

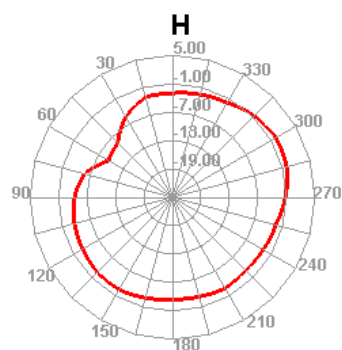


Efficiency: 44.68%

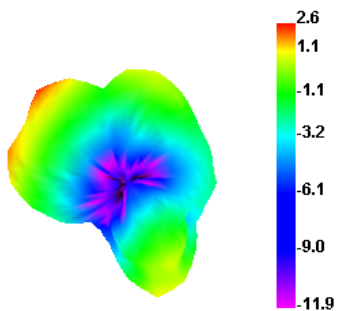


2410MHz

Gain:2.45dBi

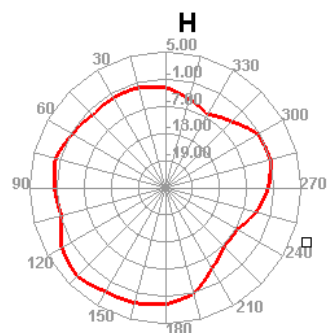


Efficiency: 41.70%

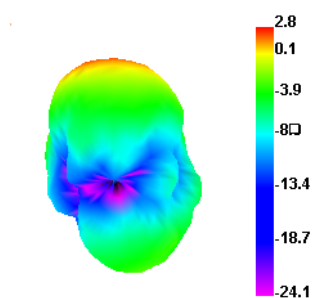


2420MHz

Gain:2.61dBi

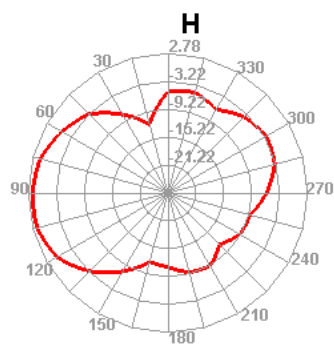


Efficiency: 41.56%

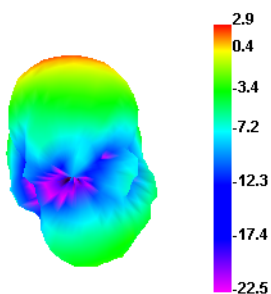


2430MHz

Gain:2.8dBi

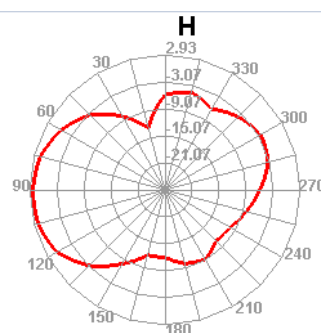


Efficiency: 46.70%

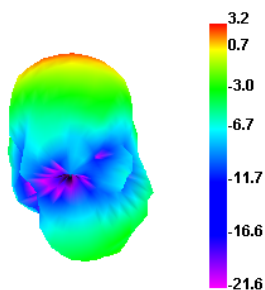


2440MHz

Gain:2.93dBi

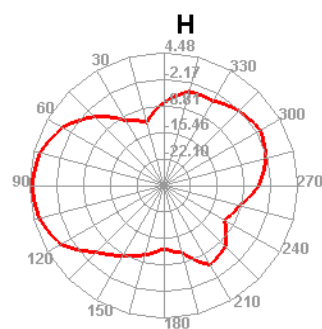


Efficiency: 46.34%

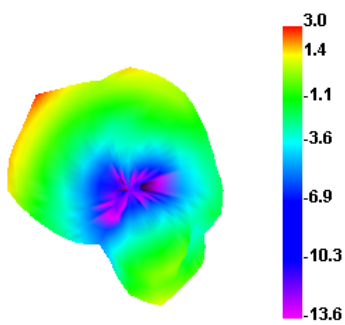


2450MHz

Gain:3.24dBi

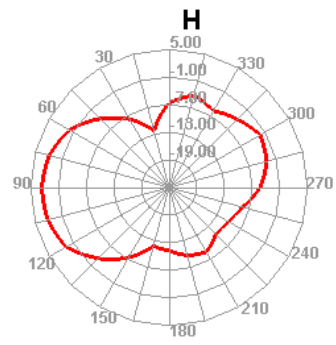


Efficiency: 44.88%

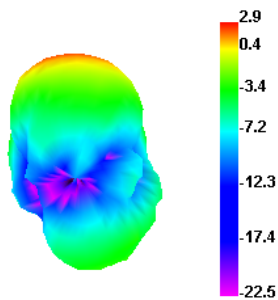


2460MHz

Gain:3.18dBi

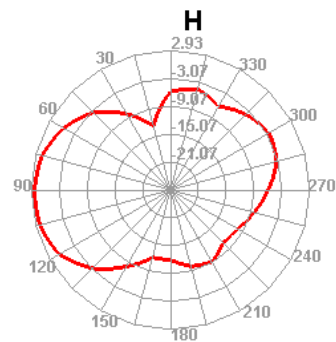


Efficiency: 46.96%

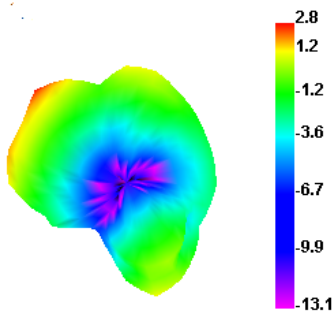


2470MHz

Gain:2.95dBi

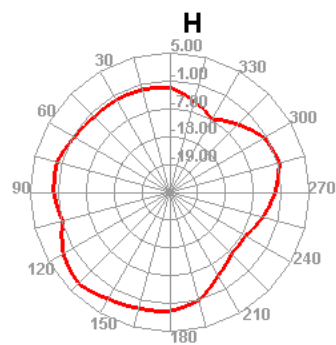


Efficiency: 46.37%

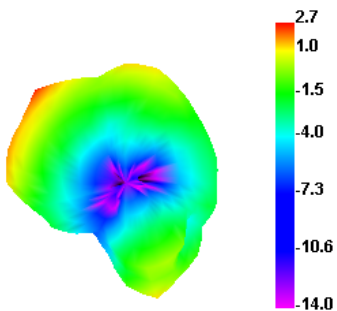


2480MHz

Gain:2.84dBi

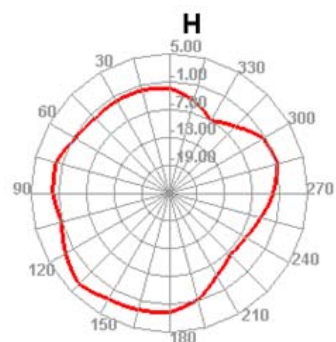


Efficiency: 45.51%

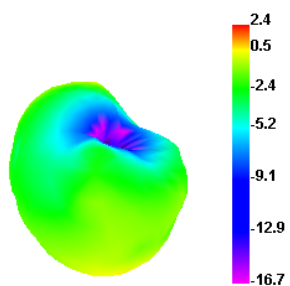


2490MHz

Gain:2.71dBi

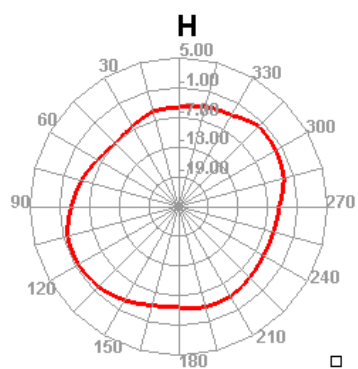


Efficiency: 47.79%



2500MHz

Gain:2.41dBi



Efficiency:44.69%

天线尺寸 Size

