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	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。

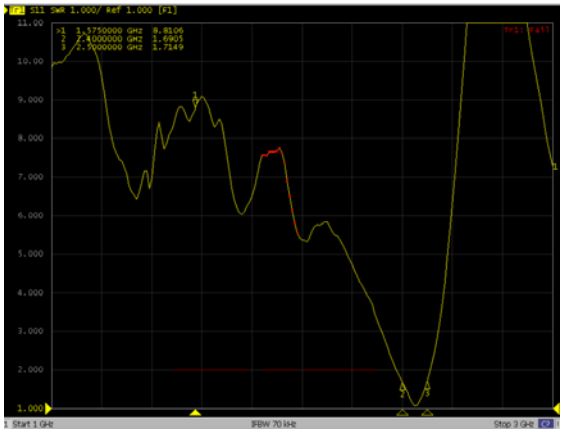
The connections of the VSWR test set in sequence are E5071B → 50 Ω Cable → 170mm Copper tube → DUT

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

WIFI



4 有源测试的设置 Setup of active tests

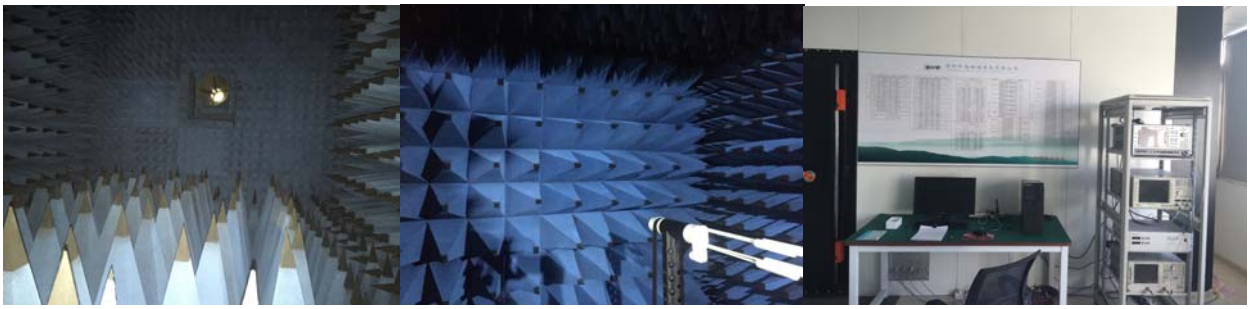
有源测试装置依次的连接为：Agilent E5062A→50 欧姆的同轴 Cable→EST 远场测试系统→待测试手机。

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

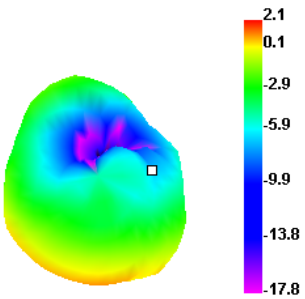
4-1 测试的场地 Site of the test

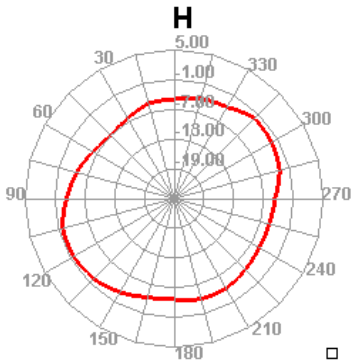
海磁通采用国内最先进的 3D/2D ETS 微波暗室测试系统，测试方式属于远场测试，频率范围为 600MHz—6GHz，暗室屏蔽衰减在-120dBm，

Haicitonge 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.

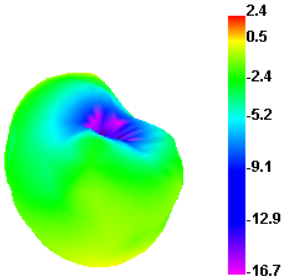


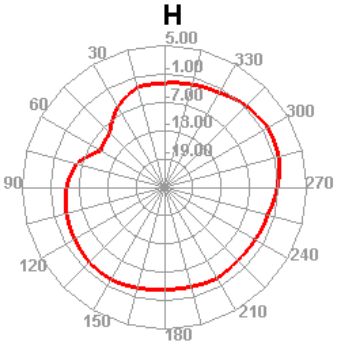
4-2 测试结果 Test Result



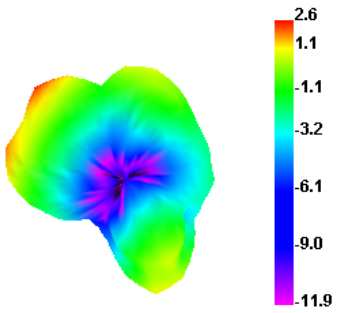


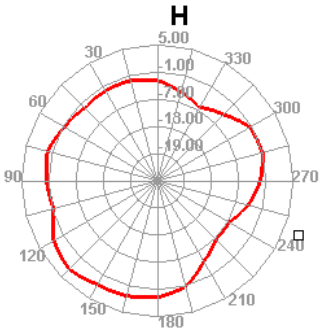
2400MHz Gain:2.17dBi Efficiency: 44.68%



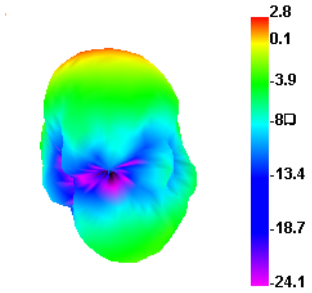


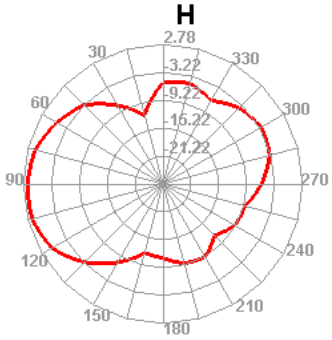
2410MHz Gain:2.45dBi Efficiency: 41.70%



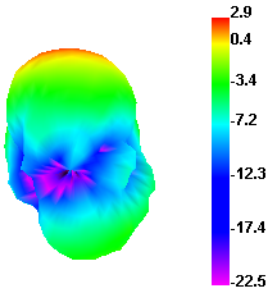


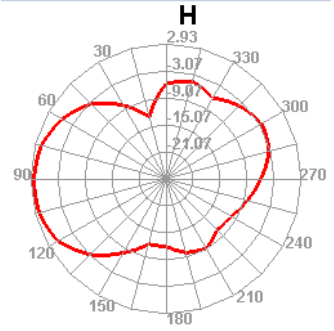
2420MHz Gain:2.61dBi Efficiency: 41.56%



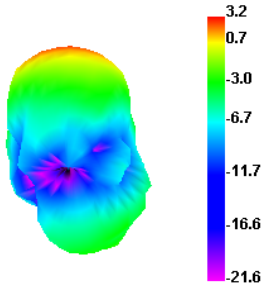


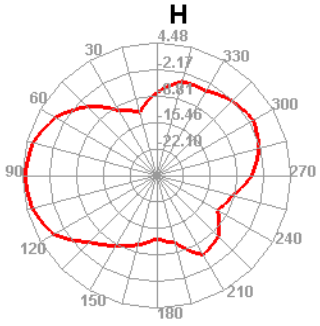
2430MHz Gain:2.8dBi Efficiency: 46.70%



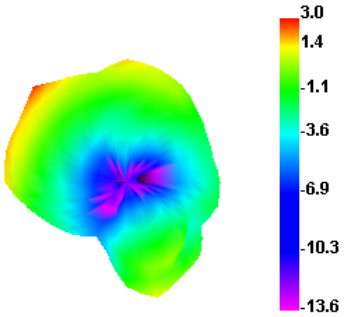


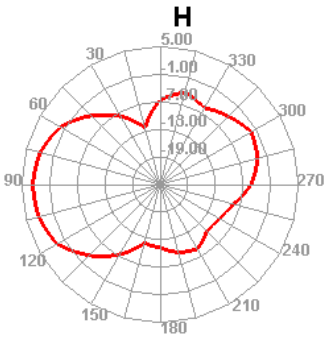
2440MHz Gain:2.93dBi Efficiency: 46.34%



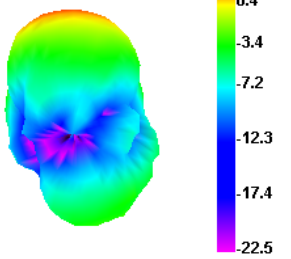


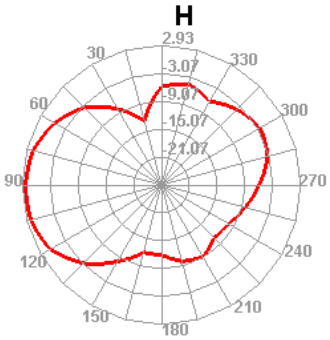
2450MHz Gain:3.24dBi Efficiency: 44.88%



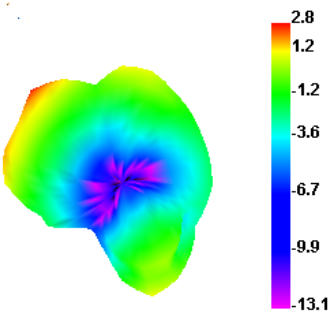


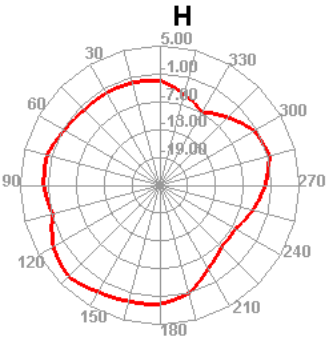
2460MHz Gain:3.18dBi Efficiency: 46.96%



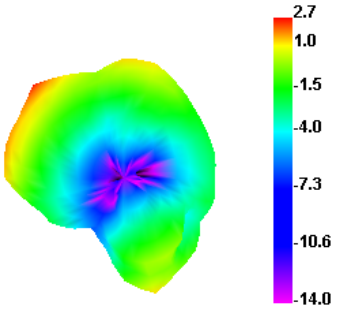


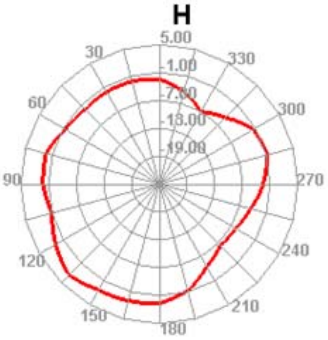
2470MHz Gain:2.95dBi Efficiency: 46.37%



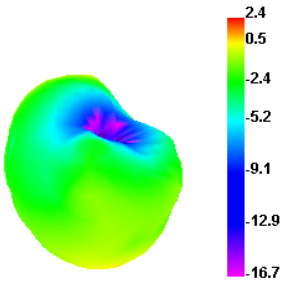


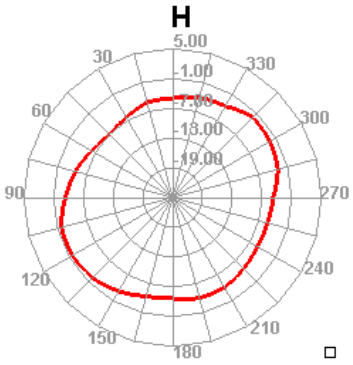
2480MHz Gain:2.84dBi Efficiency: 45.51%





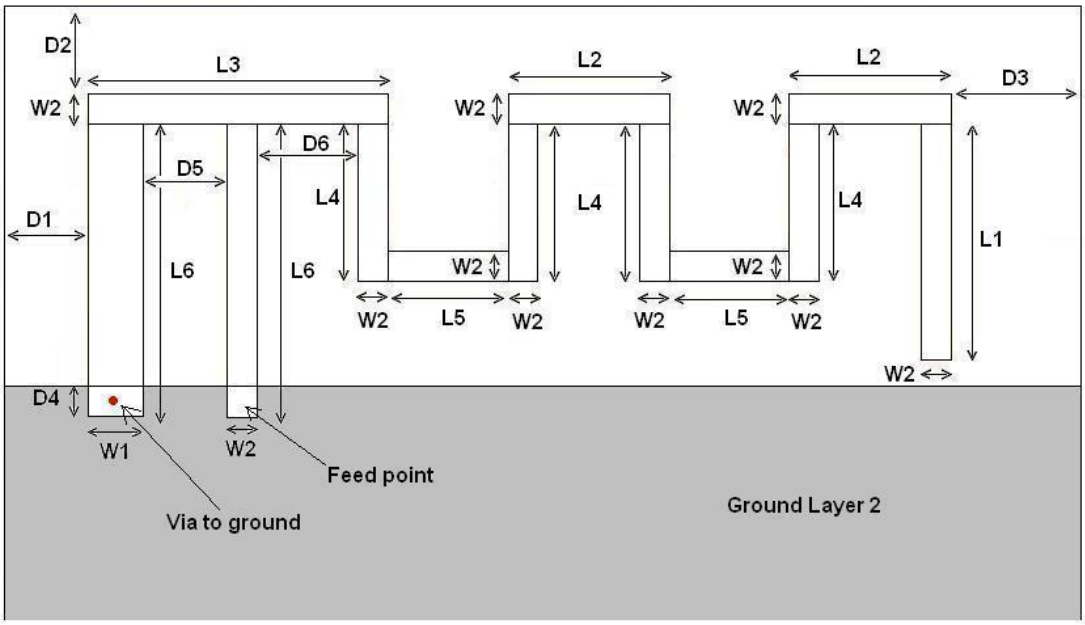
2490MHz Gain:2.71dBi Efficiency: 47.79%





2500MHz Gain:2.41dBi Efficiency:44.69%

天线尺寸 Size （Unit mm）



Antenna Dimensions

L1	3.94 mm
L2	2.70 mm
L3	5.00 mm
L4	2.64 mm
L5	2.00 mm
L6	4.90 mm
W1	0.90 mm
W2	0.50 mm
D1	0.50 mm
D2	0.30 mm
D3	0.30 mm
D4	0.50 mm
D5	1.40mm
D6	1.70 mm

Table : Antenna Dimensions