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芯图电子
天线规格书

Antenna specification sheet

客户：芯图科技		项目名：FG-starball	
频段：WIFI/2.4G5.8		日期：2025.1.13	版本：R:A
研发	结构：王工	审核：韦春燕	批准：陈亲民
	射频：王伟	审核：韦春燕	
HDZX-LS788-A963 WIFI 天线 黑 色线长 L=190MM 1 代端子			
客户审核：		客户批准：	

HDZX-LS788-A963 WIFI 天线 黑色线长 L=190MM 1 代端子

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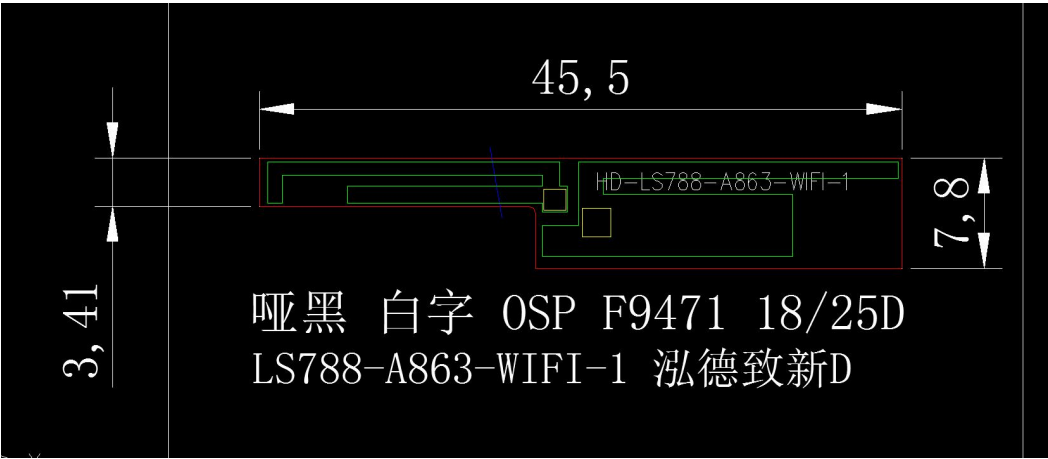
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天线型号 对应的实物图

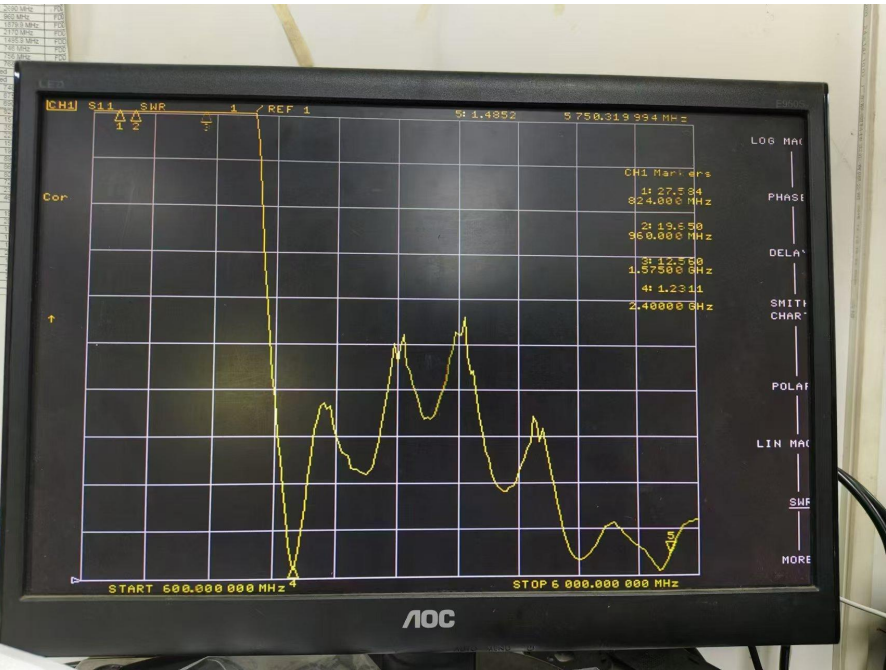
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1. Project information and Electrical Specification

Those specifications were specially defined for WIFI/BT model, and all characteristics were measured under the model's handset testing jig .

1-1 Project picture



1-2 Frequency Band:

Frequency Band	MHz
WiFi/BT 频率	2380-2500 4900~5800
天线增益 antenna gain	1.35dBi
天线最大功率 Maximum power of the antenna	16.33dBm
调试类别 Debugging category	同轴线+FPC 端子 Coaxial cable +FPC termina
无线通讯标准 Wireless communication standard	802.11

1-3 Impedance matching

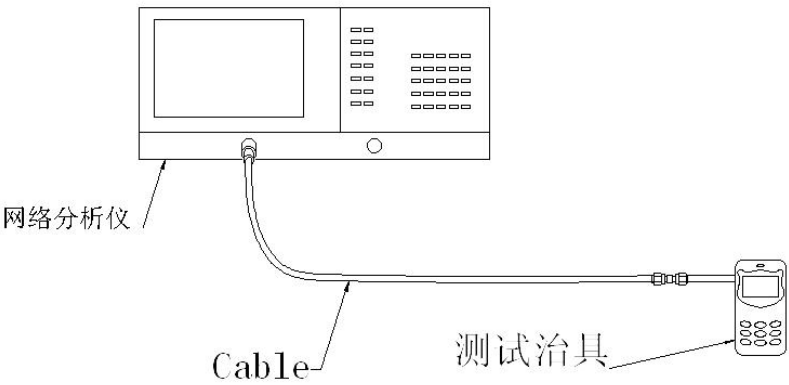
天线原匹配

2.VSWR

2-1 Measuring Method:

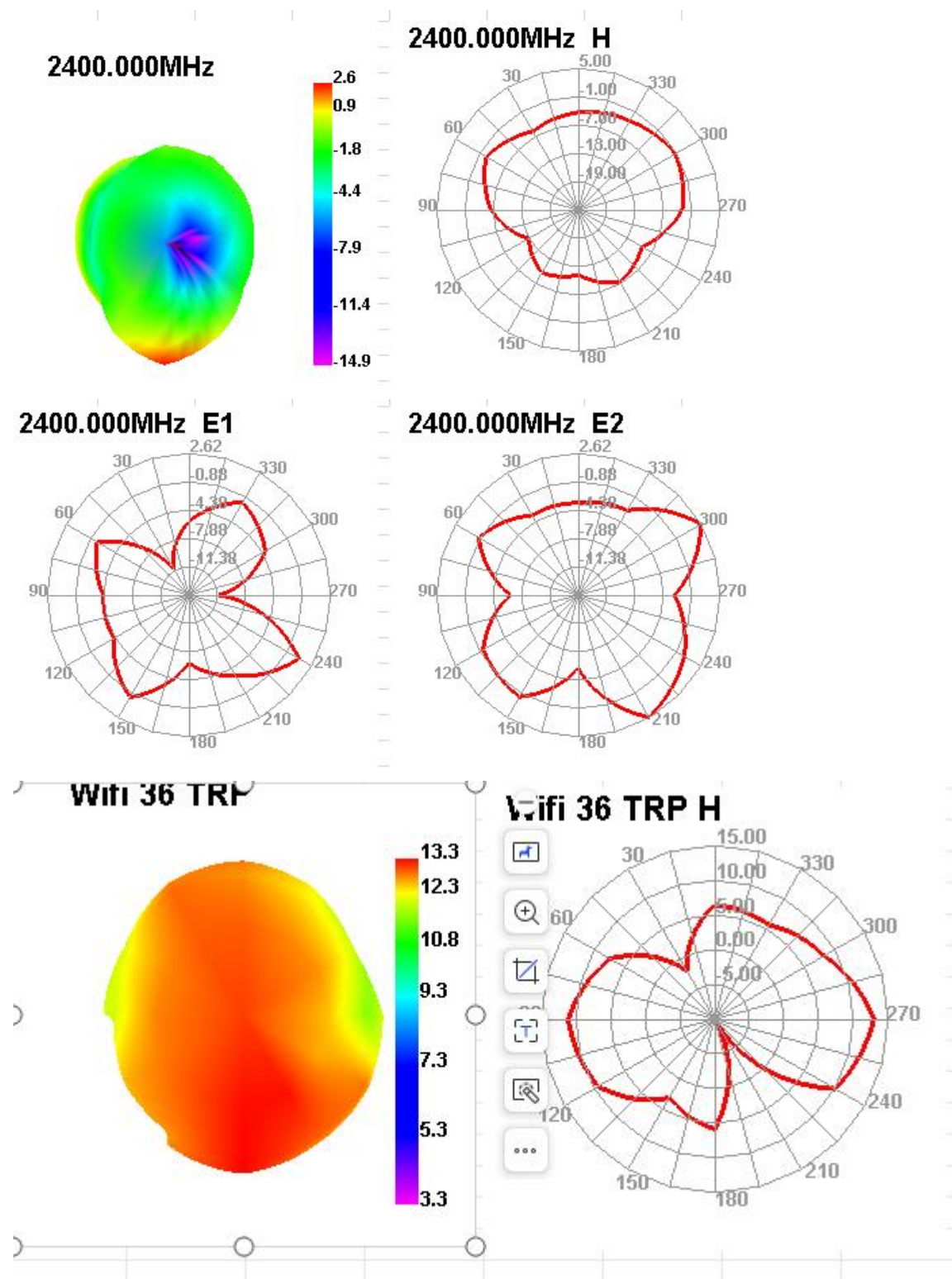
- 1. A 50 Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR,
- 2. Keeping this jig away from metal at least 20cm.

测试示意图如下：



2-2 S11 parameter values

频率 (MHZ)	2400	5500	5800
驻波	1.2	1.6	1.5



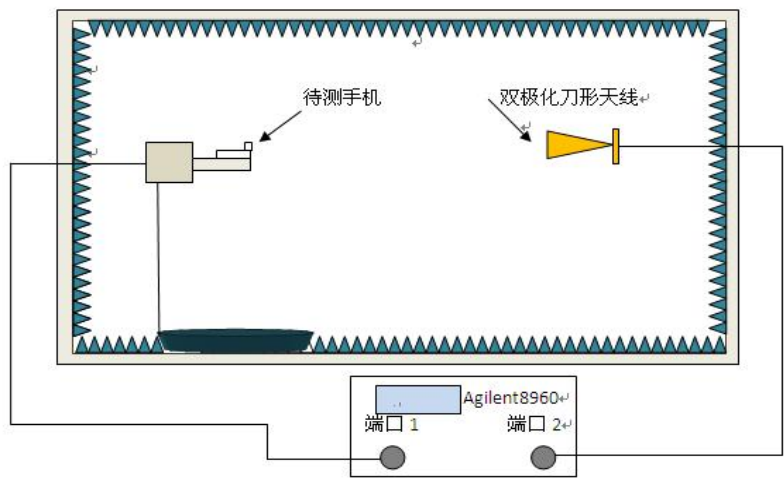
2. Efficiency and Gain

3. *measuring and test instruments:

微波暗室，Agilent 网络分析仪，Agilent 频谱分析仪，8960 综合测试仪，标准天线

***test method:**

equipment 以 H 面放于转台中心位置固定，与喇叭天线中心位置在同一个水平线上。



3-1 Efficiency/Peak Gain-

2. 4G 5. 8G 天线先贴外壳的测试数据

Test Result	802. 11B, Wifi 2. 4G 11M		
	12	6	1
Frequency (MHz)	2467	2437	2412
TRP (dBm)	15. 93	12. 96	15. 69
TIS (dBm)	-76. 01	-78. 07	-76. 32

5. 8G

Test Result	802. 11A, Wifi 5, 8G 54M		
	36	149	161
Frequency (MHz)	5180	5745	5805
TRP (dBm)	12. 63	12. 66	12. 89
TIS (dBm)	-69. 01	-71. 07	-71. 32

4. The production index

天线量产时，以驻波比作为量产测试标准。根据项目本身的差异, 给出如下标准:

频率	量产标准
WIFI /BT(2400-2500MHZ)	VSWR (量产产品) < VSWR(设计样品)+0.5

