
深圳泓德致新科技有限公司

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芯图电子

Xintu Electronics

天线规格书

Antenna Specification

Customer: Tuwei Technology		Project Name:	
Frequency band: 2.4G		date: 2026.2.02	version: R:A
R&D	Structure: Mr. Wu	Reviewed by: Wei Chunyan	Approved by: Chen Qinmin
	RF: Jiang Zhanwei	Reviewed by: Wei Chunyan	
HDZX-X100MA-WIFI WIFI antenna black L=90MM wire length first generation terminal			
Customer review:		Customer approval:	

HDZX-X100MA-WIFI WIFI antenna black L=90MM wire length first
generation terminal

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天线型号 对应的实物图 The physical image corresponding to the antenna model

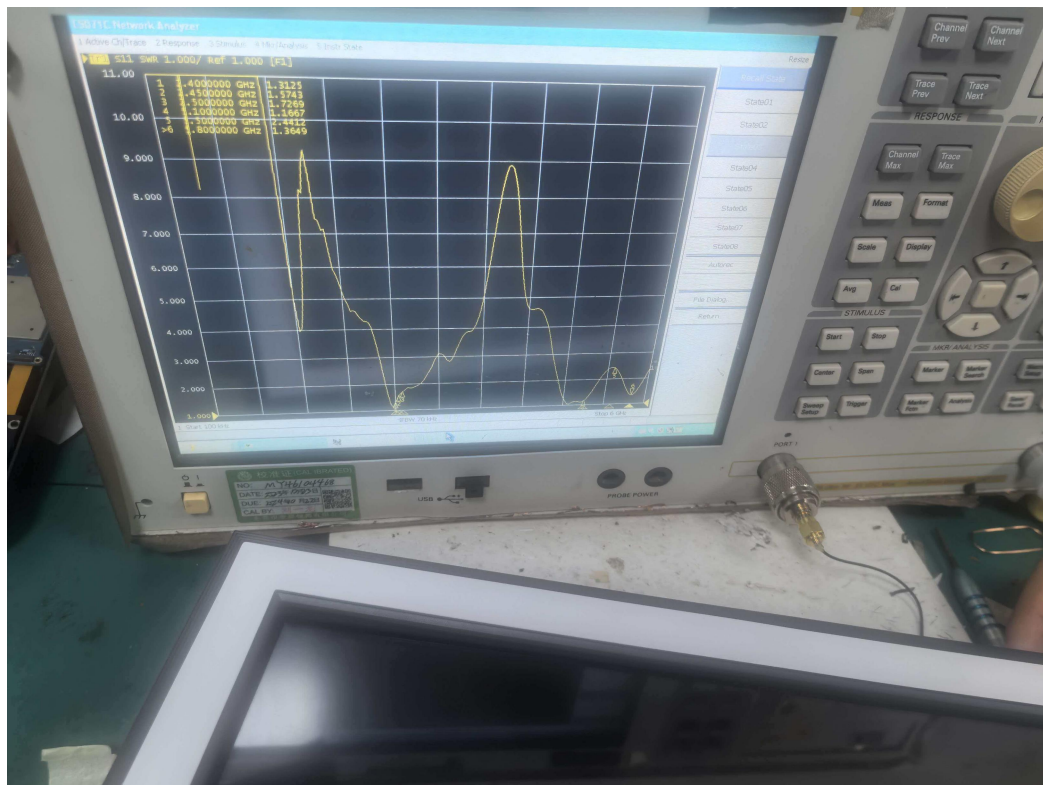
**HDZX-X100MA-WIFI WIFI ANTENNA BLACK L=90MM WIRE LENGTH
FIRST GENERATION
TERMINAL**



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 frequency	2380-2500 4900-5800
Antenna gain	2.62dbi
Maximum power of antenna	16.08dbi
Debugging category	Coaxial line+FPC welding

1-3 Impedance matching

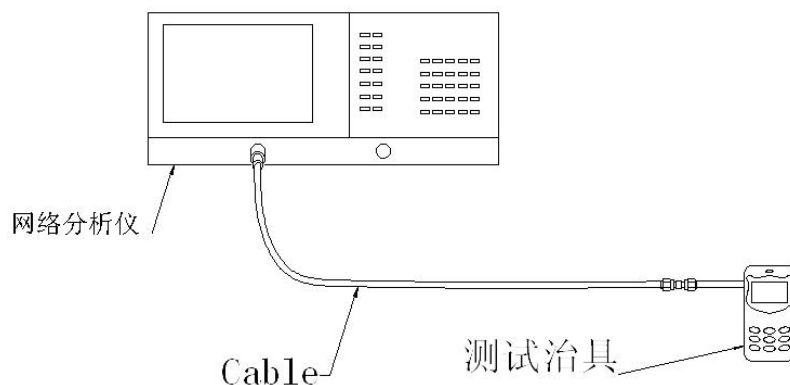
天线原匹配

2.VSWR**2-1 Measuring Method:**

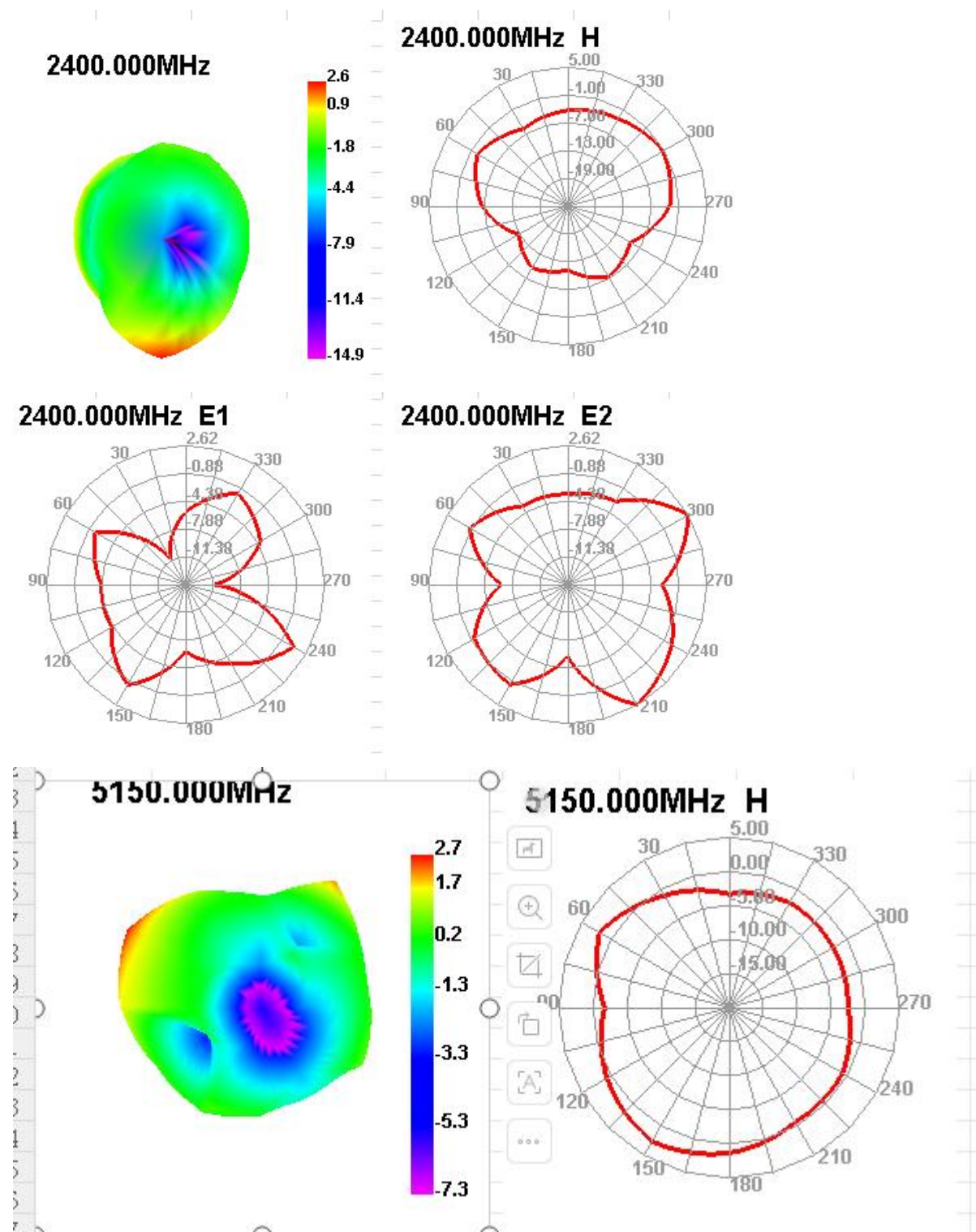
1. A $50\ \Omega$ coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR,
2. Keeping this jig away from metal at least 20cm.

测试示意图如下:

The test schematic diagram is as follows:

**2-2 S11 parameter values**

频率 frequency (MHZ)	2400	2450	5500	5800
驻波 standing wave	1.2	1.5	1.5	1.3



2. Efficiency and Gain

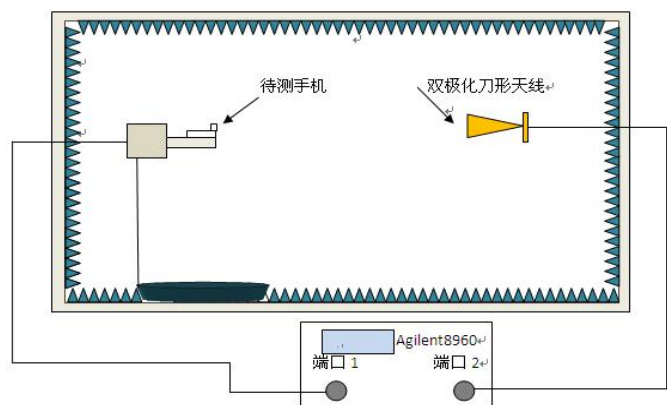
3. *measuring and test instruments:

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

Microwave darkroom, Agilent network analyzer, Agilent spectrum analyzer, 8960 comprehensive tester, standard antenna

***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。
The equipment is fixed in the center position of the turntable with the H-plane, on the same horizontal line as the center position of the horn antenna.



3-1 Efficiency/Peak Gain-

2. 4G

Test Result	802.11B, Wifi 2.4G 11M		
	12	6	1
Frequency (MHz)	2467	2437	2412
TRP (dBm)	13.53	13.86	13.99
TIS (dBm)	-83.21	-83.97	-84.32

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:

When producing antennas, the standing wave ratio is used as the production testing standard. Based on the differences in the project itself, the following standards are given:

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



天线装配位置，
Antenna assembly location,

Antenna size:
Unit:mm

