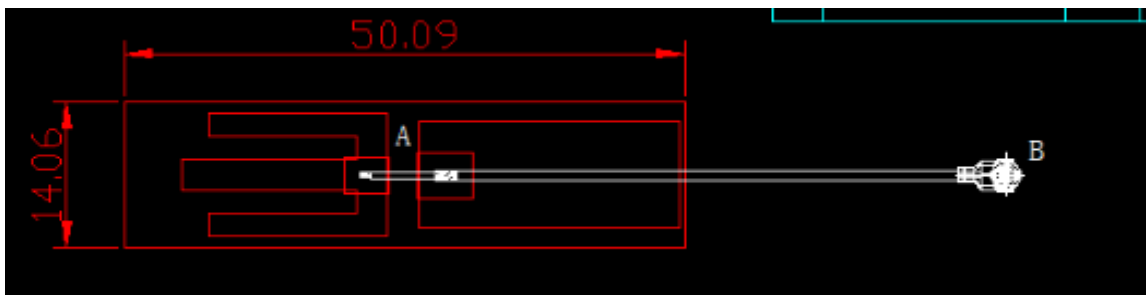

Shenzhen Hongde Zhixin Technology Co., LTD
WiFi Antenna Specification sheet

Customer: Zhihe Technology		Project Name:	
Frequency band: WIFI/2.4G5.8		Date:2025.12.09	Version: R:A
Research and development	Structure:王工	Review: 韦春燕	Approval: 陈亲民
	RF: 王伟	Review: 韦春燕	
HDZX-14622 WIFI antenna black wire length L=180MM, first-generation terminal			
Customer Audit			Customer approval:

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The physical picture corresponding to the antenna model
HDZX-14622 WIFI antenna black wire length L=180MM,
first-generation terminal



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	1.86dbi
Maximum power of the antenna	15.38dbi
Debugging category	Coaxial line +FPC welding
Wireless communication standard	802.11

1-3 Impedance matching

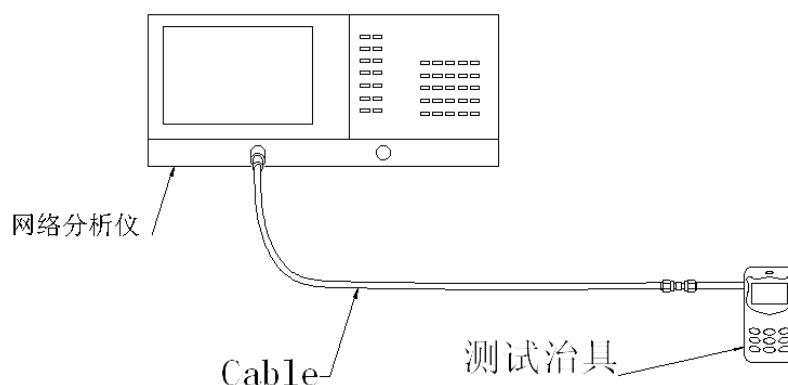
Original antenna matching

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.

The test schematic diagram is as follows



2-2 S11 parameter values

频率 (MHZ)	2400	5500	5800
驻波	1.2	1.6	1.8

1. Efficiency and Gain

2. *measuring and test instruments:

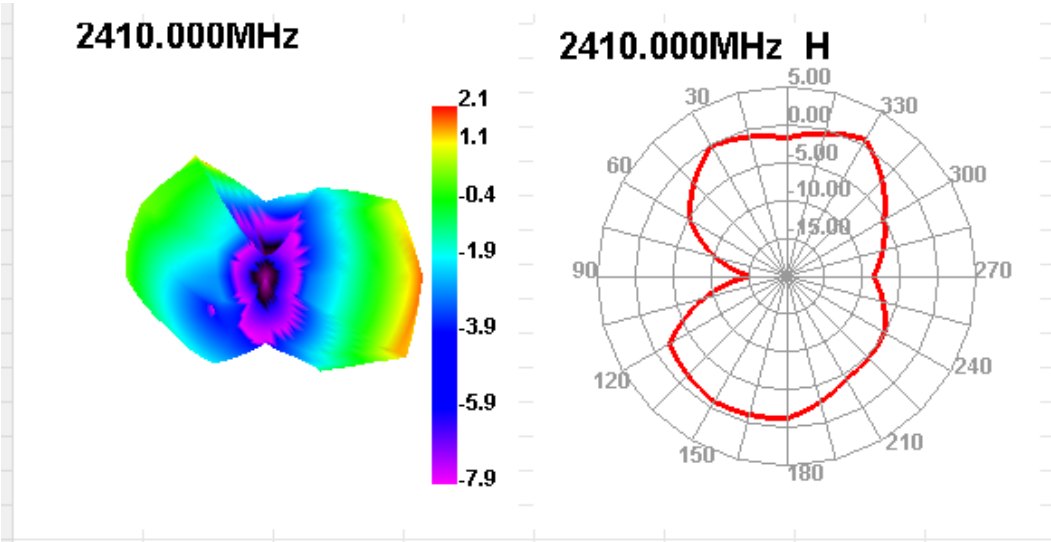
微波暗室, Agilent 网络分析仪, Agilent 频谱分析仪, 8960 综合测试仪, 标准天线

*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。

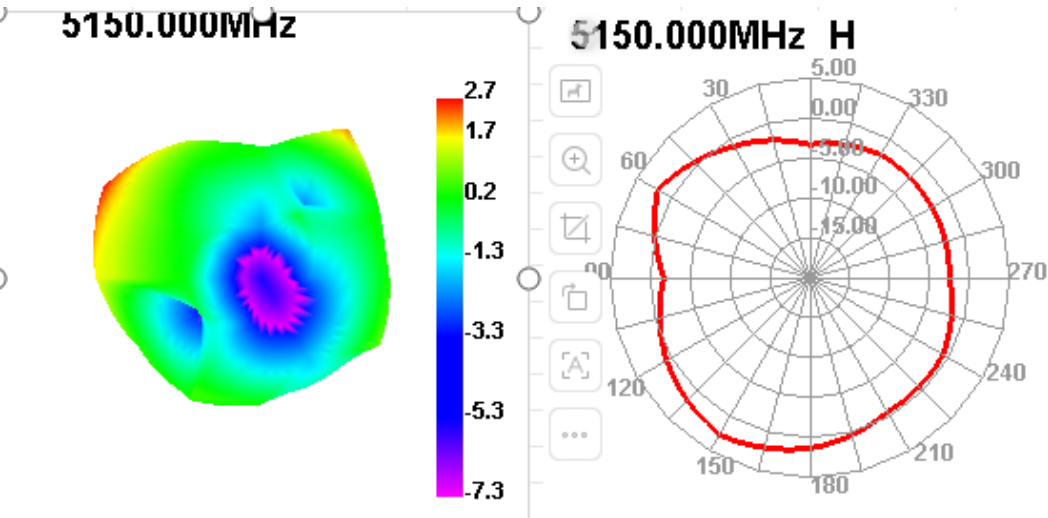
2. 4G

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	51.57	-3.32	1.86
2410	49.82	-3.3	2.06
2420	47.02	-3.28	2.21
2430	47.24	-3.26	2.44
2440	48.64	-3.13	2.56
2450	51.35	-2.89	2.82
2460	51.47	-2.88	2.76
2470	51.49	-2.88	2.69
2480	50.82	-2.94	2.69
2490	51.19	-2.91	2.53
2500	51.2	-2.91	2.43



5.8

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	65.97	-1.81	2.68
5200	63.31	-1.99	2.3
5250	57.93	-2.37	1.81
5300	59.66	-2.24	2.06
5350	64.84	-1.88	2.42
5400	70.58	-1.51	2.8
5450	68.2	-1.66	2.56
5500	64.85	-1.88	2.12
5550	64.33	-1.92	2.05
5600	66.04	-1.8	2.23
5650	67.11	-1.73	2.48
5700	66.63	-1.76	2.67
5750	65.85	-1.81	2.71
5800	60.82	-2.16	2.42
5850	61.49	-2.11	2.25



4. The production index

When antennas are mass-produced, the standing wave ratio is used as the mass production test standard. Based on the differences of the projects themselves, the following standards are provided:

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