



深圳信诺山通信技术有限公司

Shenzhen Signalsen Telecom Technology Co, .Ltd

Antenna Specification

我司料号 Our Company's PN: W754-1B120B-A

客户 Customer: 君兰电子 Junlan electron		项目名 Project Name :WiiM Pro Plus
频段 Frequency Band: 2.4G/5G WiFi/BT	日期 Date: 2023.6.7	版本 Edition: R:A
研发 R&D:	结构 ME:	批准 Approval:
	射频 RF:	
客户审核 Customer Audit:	客户批准 Customer Approval:	



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1. Project information and Electrical Specification

*Those specifications were specially defined for **WiiM Pro Plus** WIFI 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	2400-2500/5050-5850

1-3 Impedance matching

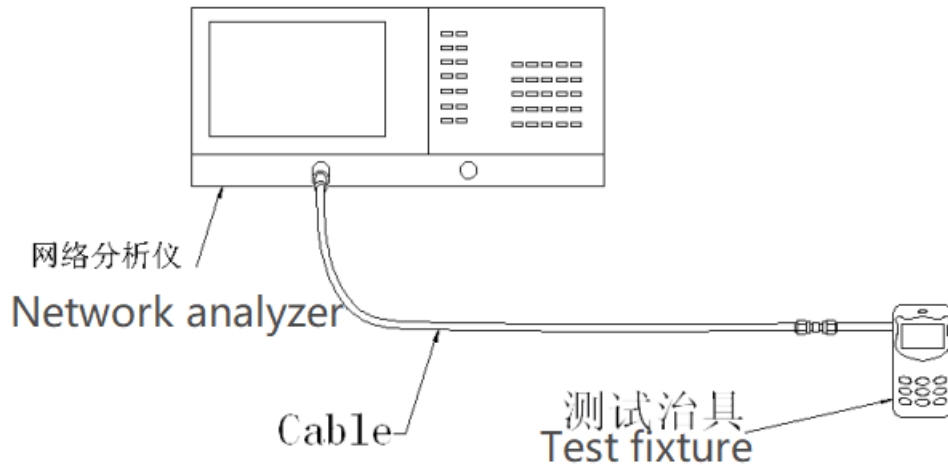
天线原匹配 Antenna original matching

2.VSWR

2-1 Measuring Method:

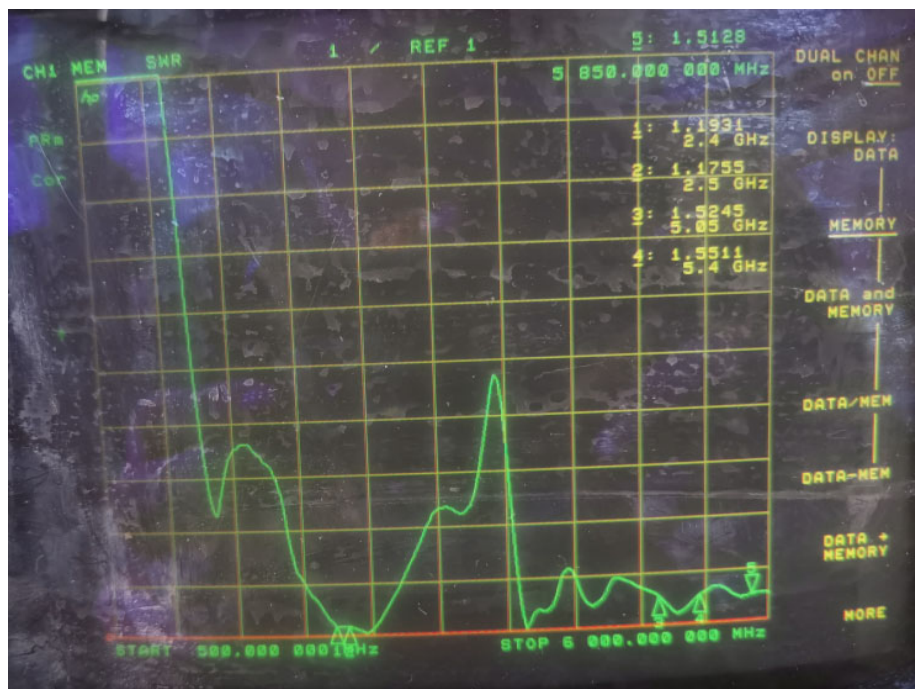
- 1. A 50 Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR,*
- 2. Keeping this jig away from metal at least 20cm.*

测试示意图如下 The test diagram is as follows:



2-2 S11 parameter values

频率 Frequency (MHZ)	2400	2500	5050	5400	5850
驻波 Standing wave	1.19	1.17	1.52	1.55	1.51



3. Efficiency and Gain

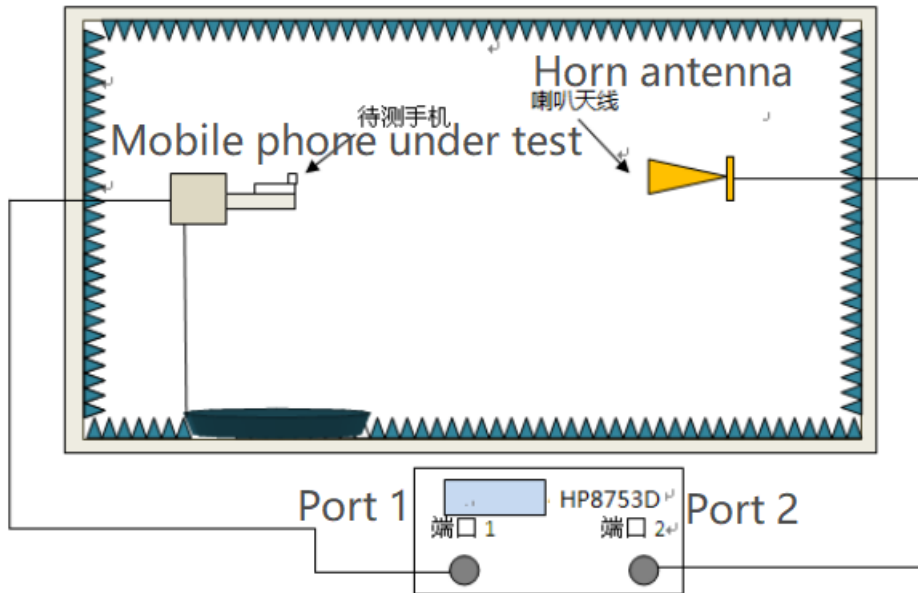
*measuring and test instruments:

微波暗室 Microwave anechoic chamber, Agilent 网络分析仪 Network analyzer, Agilent 频谱分析仪 Spectrum analyzer, 8960 综合测试仪 Comprehensive test instrument, 标准天线 Standard

antenna

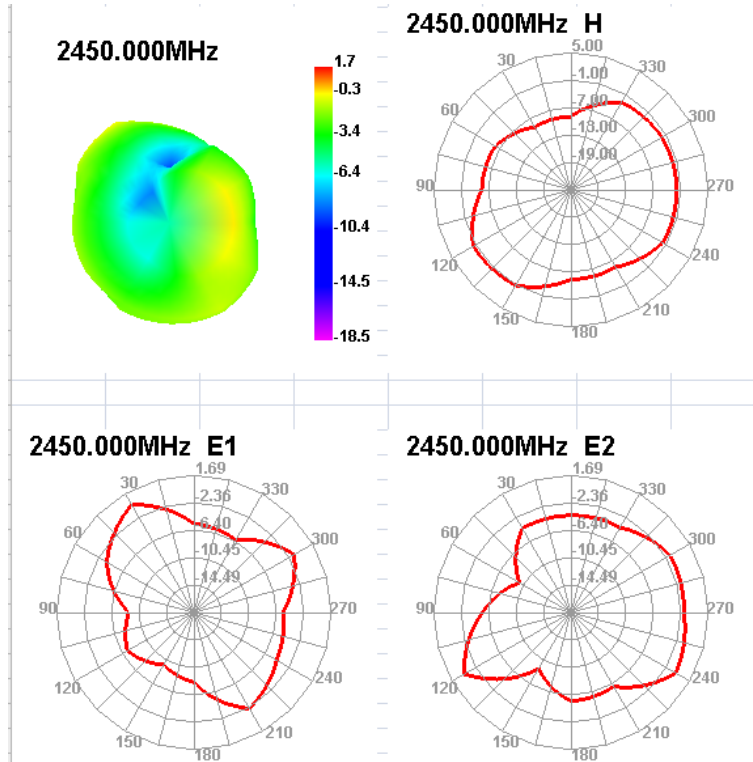
***test method:**

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 Place the H plane at the center of the turntable and fix it, which is on the same horizontal line as the center of the horn antenna.

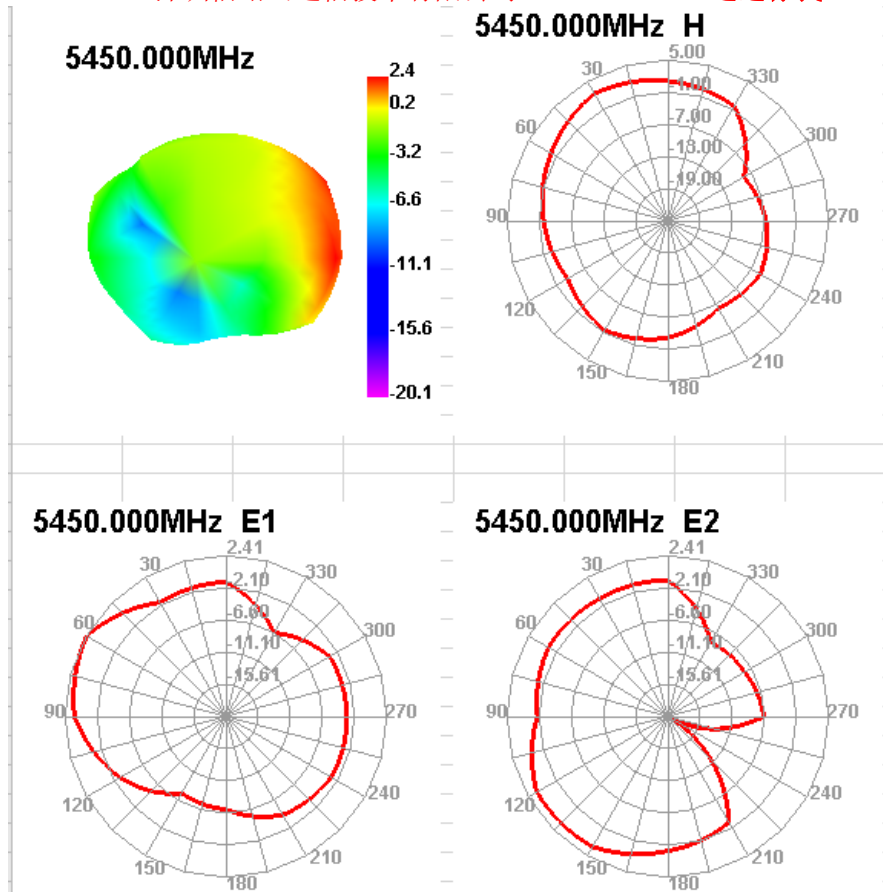


3-1 Efficiency/Gain- WIFI

Passive Test For WIFI_BT								
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	50.67	-2.95	1.73	-0.42	1.73	-18.33	51.53	51.61
2450	50.75	-2.95	1.69	-0.46	1.69	-18.53	51.67	51.63
2500	51.75	-2.86	1.9	-0.25	1.9	-12.83	51.56	51.46



Passive Test For 5G								
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5050	49.5	-3.05	2.05	-0.1	2.05	-16.18	61.99	61.33
5450	59.13	-2.28	2.41	0.26	2.41	-20.11	62.48	62.82
5850	49.18	-3.08	1.85	-0.3	1.85	-18.59	64.56	65.16



4. The production index

天线量产时，以驻波比作为量产测试标准 When the antenna is mass produced, the standing wave ratio is taken as the test standard for mass production.

根据项目本身的差异,给出如下标准 According to the differences of the project itself, the following standards are given:

频率 Frequency (MHZ)	量产标准 Mass production standard
WIFI (2400-2500/5050-5850)	VSWR (量产产品 Mass production products) <VSWR(设计样品 Design sample)+0.5

