



深圳市睿德通讯科技有限公司

Shenzhen Etheta Communication Technology Co., LTD.

供应商名称: 深圳市睿德通讯科技有限公司
Supplier Name: Shenzhen Etheta Communication Technology Co., LTD.

产 品 承 认 书

Specification for Approval

客户名称

Client Name:

百富计算机技术(深圳)有限公司
PAX Computer Technology (Shenzhen) Co., Ltd.

品 牌

Brand Name:

ETHETA

原厂料号

Part No:

RD052303NB87-2

物料规格

Part Description:

L1600B-2.4G/5.8G-MIMO2-V01

产品制造商:

Manufacturer:

深圳市睿德通讯科技有限公司
Shenzhen Etheta Communication Technology Co.,LTD

百富物料类别

PAX Part Name:

FPC +Cable

百富物料编号

PAX Materiel No.:

200212000000311

百富物料描述

PAX Description:

L1600B-2.4G/5.8G-MIMO2-V01

供应商地址

Supplier address:

深圳市南山区沙河西路 3011 号白沙科技产业园 1 栋 3 楼 B 区和 D 区
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供 应 商 签 章		日期	客 户 签 章
结构	刘飞明	2023/10/26	承 认: 确 认:
射频	关 伟	2023/10/26	
确 认	马 超	2023/10/26	



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Antenna Specification

Sample Photo

please refer to the antenna photo.

1. Electrical Characteristics

Frequency	2400-2500MHZ/5150-5850MHZ
Return Loss	<-5
Polarization	Linear
Impedance	50 Ohm

2. Material & Mechanical Characteristics

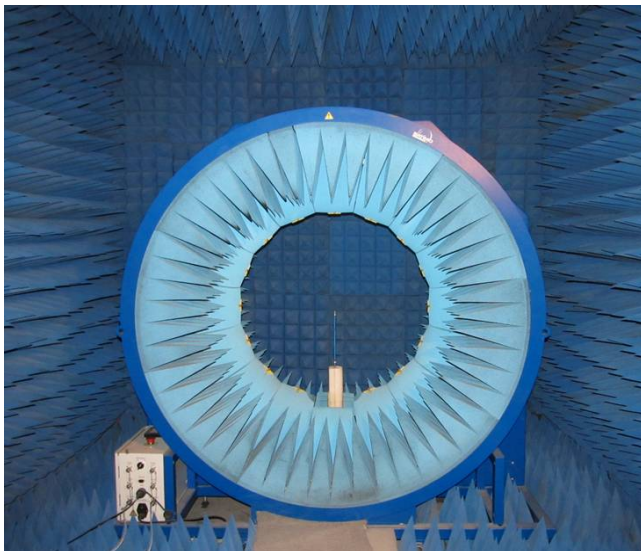
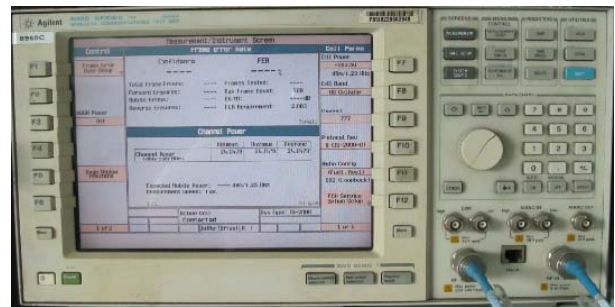
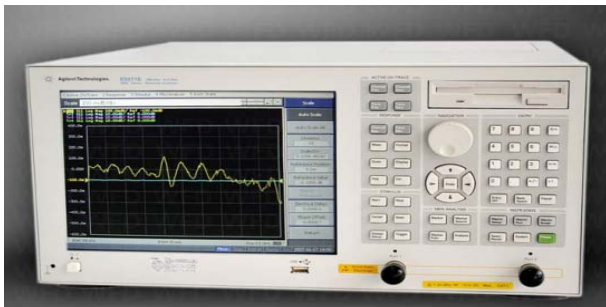
Material of antenna	FPC+cable
Connector Type	IPEX

3. Environmental

Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C
Antenna Color Storage life	< 0.5year

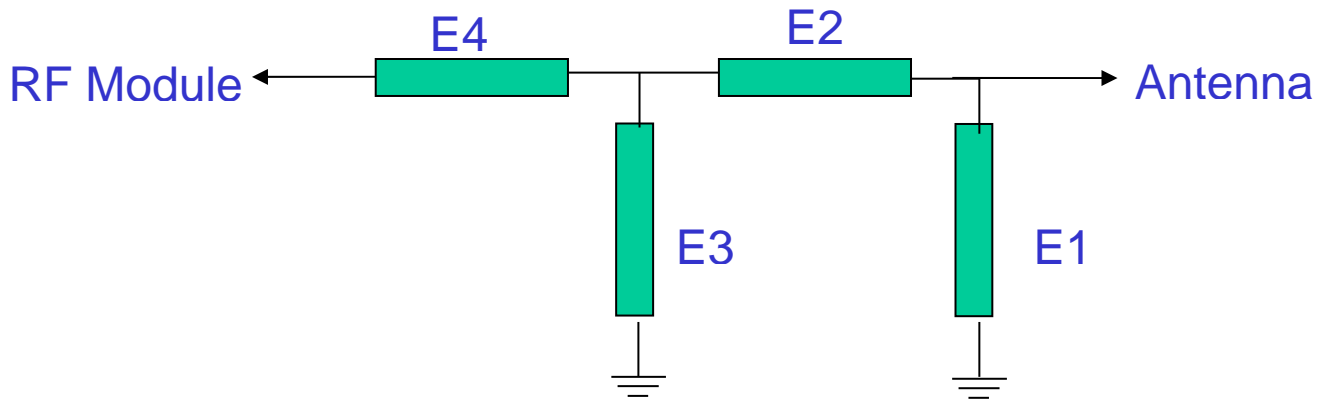
4、Test &Item Equipment

List	Test Item	Equipment	
1.S11 Parameter	VSWR, Return Loss	Agilent VNA	
2.Active Test	TRP, TIS	Agilent 8960	Satimo Starlab
3.Passive Test	Gain, Efficiency, Pattern	Agilent VNA	



暗室测试参数
 A darkroom test parameters
 测试系统 The test system:
 SATIMO-SG24
 测试环境: 温度 20℃ ± 2℃, 湿度
 50% ± 15%
 Test environment: temperature 20 °C
 + 2 °C, humidity of 50% plus or minus
 15%
 测试设备: 测试有源数据时, 使用综
 测仪 Agilent 8960 Active test
 equipment, test data, from using

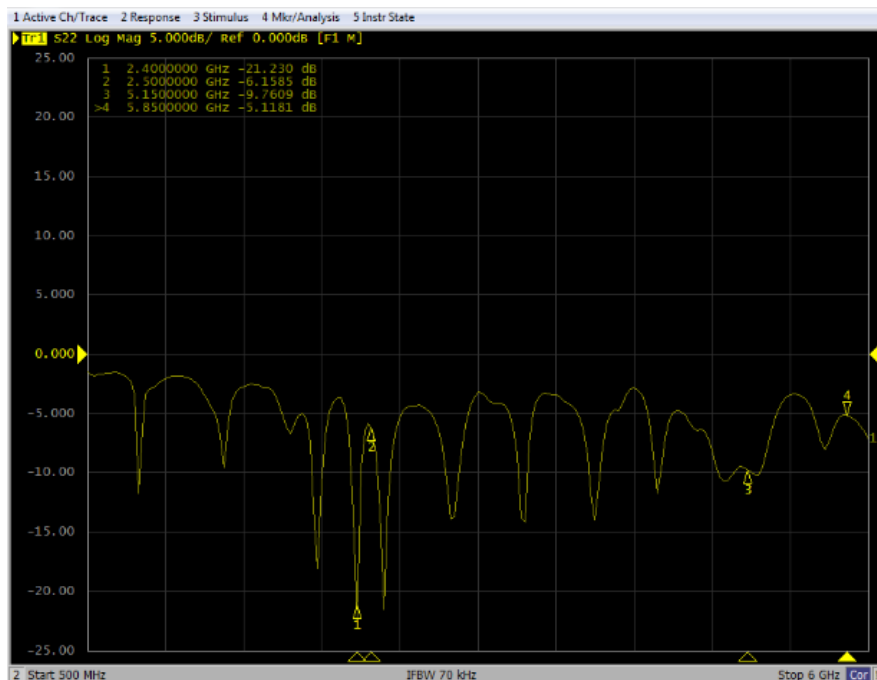
5、Matching Circuit



Element	Value
E1(0402)	NA
E2(0402)	0
E3(0402)	NA
E4(0402)	0

We have changed the original matching circuit

6、S11 Parameter Test



6.1、Test methods and specifications

测试设备：网络分析仪 (HP 8753E)

测试方法：用一根 50 欧姆 CABLE 电缆从仪器测试端口导出，使用校准件校准后连接射频治具的 SMA 接头，记录相关频点对应的回波损耗和驻波比。

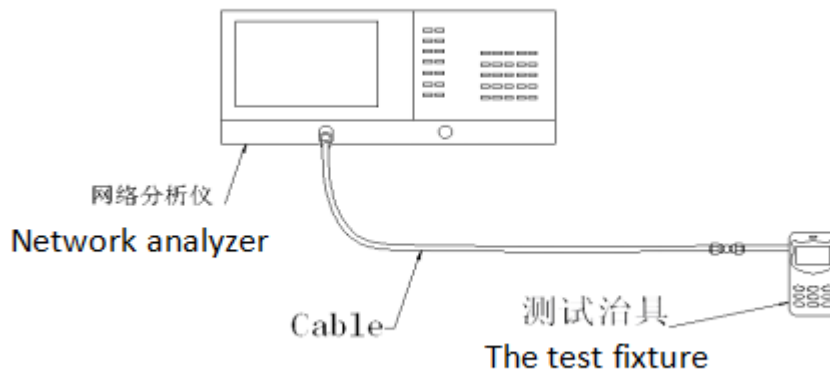
测试示意图如下：

Testing equipment: network analyzer (HP 8753 e)

Test method: with a 50 ohm CABLE CABLE from the instrument test port export, calibration using a calibration after connection

Rf fixture of the SMA connector, records related to the frequency points corresponding return loss and standing wave ratio.

Test schematic diagram is as follows:

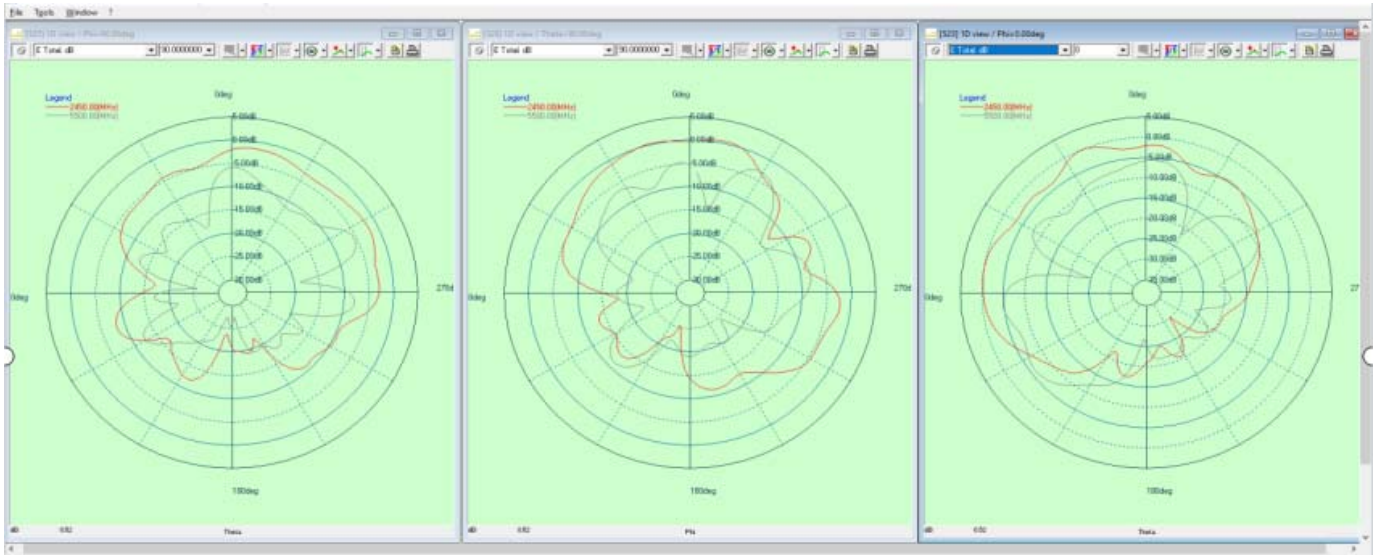


7、Active Test

无源效率和增益 Passive efficiency and gain

Fre (MHz)	Effi (%)	Effi(dB)	Peak Gain	Fre (MHz)	Effi (%)	Effi(dB)	Peak Gain
2400	32%	-4.95	1.69	5150	24%	-6.22	2.87
2410	32%	-5.01	1.29	5200	25%	-6.00	3.00
2420	30%	-5.20	0.93	5250	24%	-6.13	3.11
2430	30%	-5.29	0.82	5300	21%	-6.75	2.27
2440	29%	-5.40	0.72	5350	22%	-6.63	1.61
2450	28%	-5.54	0.73	5400	19%	-7.20	0.95
2460	28%	-5.58	0.84	5450	17%	-7.61	0.08
2470	28%	-5.50	0.86	5500	16%	-7.91	-0.24
2480	29%	-5.43	1.07	5550	17%	-7.72	-0.19
2490	30%	-5.29	1.08	5600	19%	-7.28	0.98
2500	32%	-4.93	1.27	5650	20%	-6.96	2.00
AVG	30%	-5.28	1.03	5700	21%	-6.88	2.21
				5750	20%	-6.93	2.11
				5800	17%	-7.71	0.75
				5850	15%	-8.25	-0.15
				AVG	20%	-7.08	1.42

2D 方向图 2D pattern





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有源测试数据 Active test data

测试项目		测试频段	测试信道	测试数据	测试项目		测试频段	测试信道	测试数据
WIFI_2.4G	TRP	11M_B	L	13.78	WIFI_5.8G	TRP	54M_A	L	10.9
			M	14.55				M	10.69
			H	14.69				H	11.24
			Ave	14.34				Ave	10.94
	TIS	11M_B	L	-84.21		TIS	54M_A	L	-72.58
			M	-81.93				M	-72.02
			H	-82.79				H	-72.97
			Ave	-82.98				Ave	-72.52
	TRP	65M_N-MCS7	L	12.70					
			M	13.44					
			H	14.19					
			Ave	13.49					
TIS	65M_N-MCS7	L	-67.57						
		M	-68.13						
		H	-67.63						
		Ave	-67.78						

8. Drawings

note: please refer to the operation description.