

承認書

APPROVAL

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料 号 PART NO.:
客 户 料 号 CUS PART NO.:
日 期 D A T E:

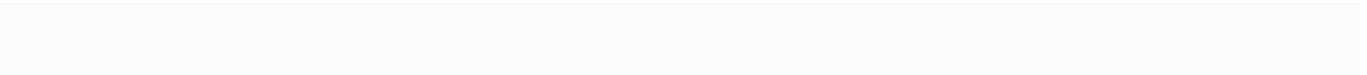
工 程 ENGINEERING DEPARTMENT	品 保 Q C DEPARTMENT	业 务 SALES DEPARTMENT

客户承认签章

工 程 ENGINEERING DEPARTMENT	品 保 Q C DEPARTMENT	采 购 PURCHASING DEPARTMENT

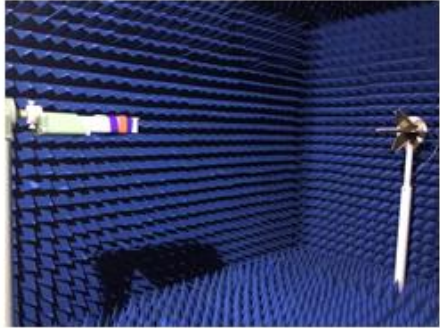
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※ Approval in duplicate, please signed by your company.



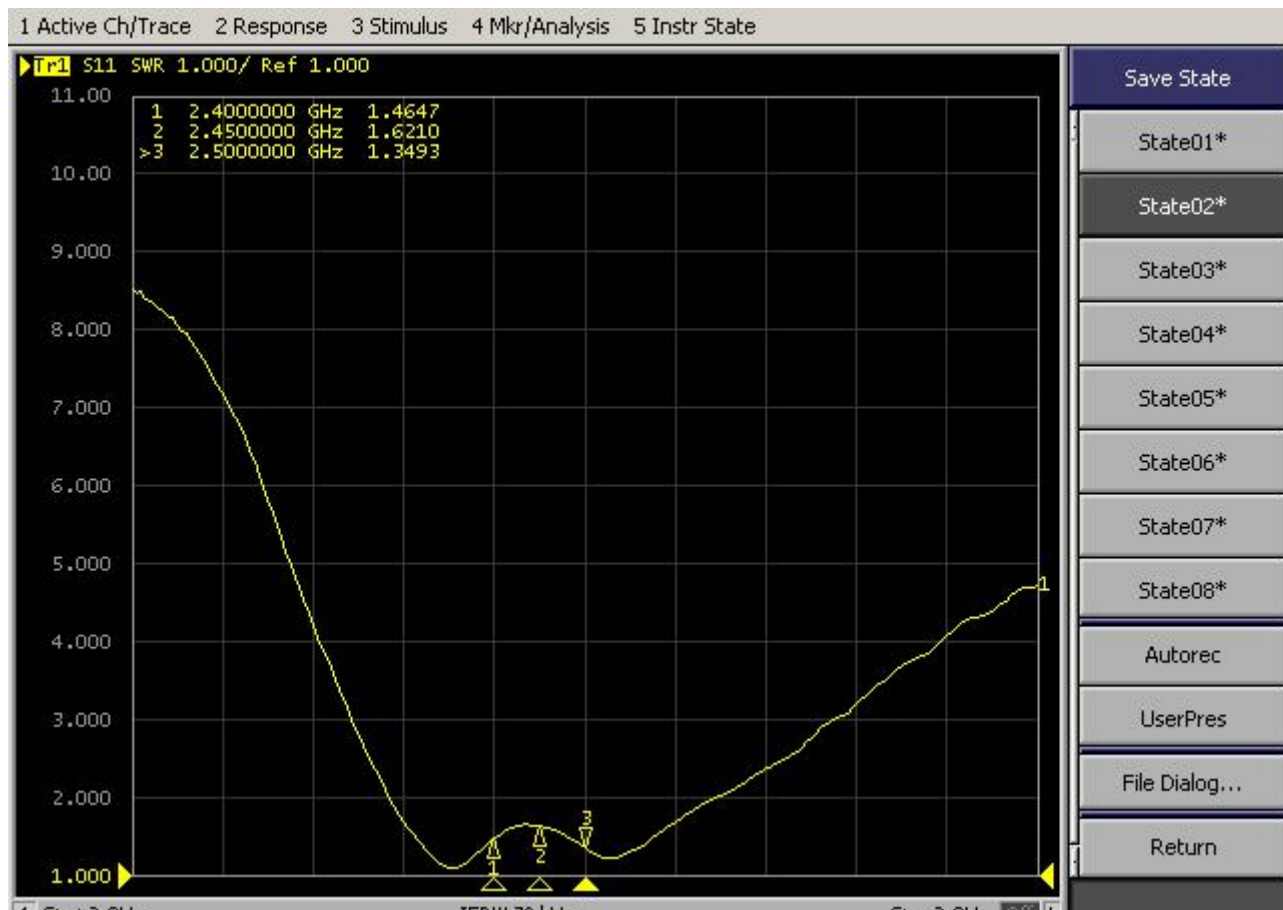
1.测试项目与设备

	测试项目	设备
1. S11 参数 (S-parameter)	1. 回波损耗 (Return Loss) 2. 电压驻波比 (VSWR)	网络分析仪: Agilent E5071B HP 8753D
2. 有源测试 (Active)	1. 发射功率 (TRP) 2. 接收灵敏度 (TIS)	1. 暗室: ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2. 综合测试仪: Agilent 8960 E5515B ×2 StarPoint SP6011
3. 无源测试 (Passive)	1. 天线增益 (Gain) 2. 天线效率 (Efficiency)	1. 暗室: ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2. 网络分析仪: Agilent E5071B HP 8753D



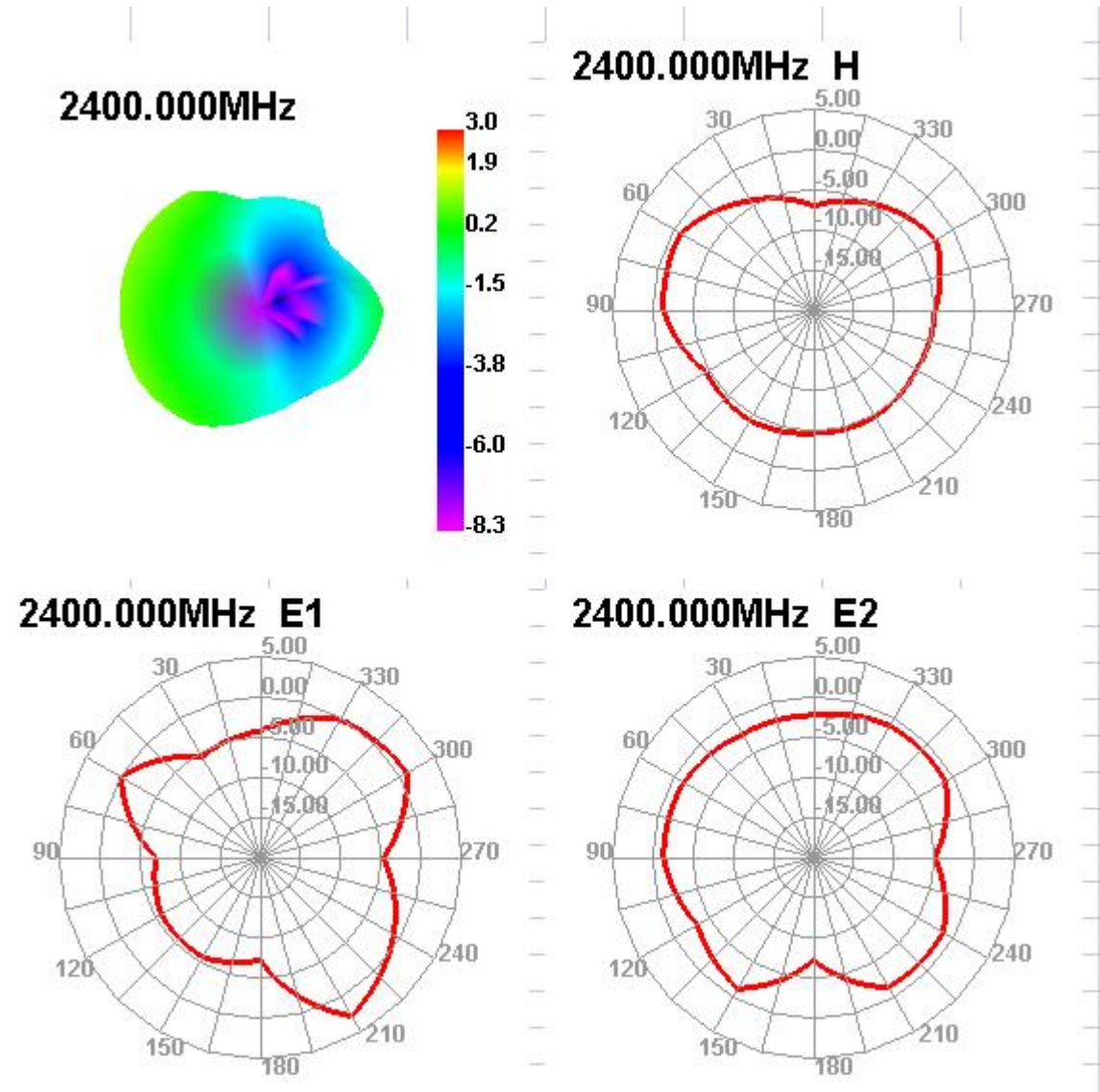
2.天线性能

SWR



3.天线效率与增益

Passive Test For WIFI										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	65.99	-1.8	2.99	0.84	35.629	30.365	2.99	-8.28	48.09	47.94
2410	61.32	-2.12	2.62	0.47	32.762	28.557	2.62	-8.32	48.07	47.87
2420	60.58	-2.18	2.52	0.37	32.121	28.457	2.52	-8.49	48.18	48
2430	61.75	-2.09	2.58	0.43	32.561	29.188	2.58	-9.08	48.17	47.99
2440	64.63	-1.9	2.73	0.58	34.122	30.503	2.73	-9.66	48.33	48.11
2450	66.86	-1.75	2.86	0.71	35.326	31.534	2.86	-9.93	48.44	48.14
2460	67.45	-1.71	2.92	0.77	35.514	31.938	2.92	-9.82	48.41	48.06
2470	68.53	-1.64	3.00	0.87	35.718	32.817	3.02	-9.44	48.49	48.11
2480	67.12	-1.73	2.94	0.79	34.493	32.624	2.94	-11.1	48.63	48.18
2490	64.57	-1.9	2.74	0.59	32.811	31.763	2.74	-12.94	48.76	48.29
2500	63.95	-1.94	2.7	0.55	32.027	31.926	2.7	-14.21	48.69	48.16



电器技术参数

电 性 能 指 标		Electrical Specifications	
频率范围	2400~2500	Frequency Range	2400~2500
电压驻波比	≤1.5	VSWR	≤1.5
输入阻抗	50 Ω	Input Impedance	50 Ω
增益	3 DBI	Gain	3 DBI
辐射方向	全向	Radiation direction	omnidirectional
机 械 指 标		Mechanical Specifications	
线材颜色	黑色	Antenna Color	Black
接口形式	IPEX	Input connector	IPEX
天线长度	155mm	Cable length	155mm
工作温度	-40℃~+85℃	Working Temperature	-40℃~+85℃
工作湿度	20~80%	Working Humidity	20~80%

环境性能测试（Environment performance test）：

项目	测试条件	测试结果
储存环境	在没有指定的情况下测试温度、湿度、气压如下： 1. 温度为-30℃～+80℃ 2. 相对湿度为45%-85% 3. 气压为86kpa-106kpa	电气机械性能正常
高低温试验	在70℃与-40℃之间进行5次循环，然后在正常条件下1-2H，检查外观质量。	尺寸应满足规定并应满足于机械、电气性能
耐恒定湿热试验	相对湿度95±3%，试验温度：40℃.持续2H作用后，试品取出后5min之内测定电气性能，试品在正常条件下1-2H，检查外观质量	尺寸应满足规定并应满足于机械、电气性能
振动试验	振频范围10-55HZ，位移幅值：0.35MM，加速度幅值：50.0M/S，扫频循环次数：30次	电气机械性能正常
跌落试验	1M高空按照互相垂直的轴方向自由跌落3次	电气机械性能正常

Project	Test condition	Test results
Storage environment	Test temperature, humidity, pressure without stated condition as follwings:1.Temperature: -30 ℃ ~ +80 ℃ ;2.Relative humidity: 45%-85%;3,Pressure: 86kpa-106kpa	Electrical and mechanical performance normal
High and low temperature test	Having 5 times cycle between -40℃ to 70℃,Then in common condition 1-2 hours test exterior quality.	Measurement satisfied with electrical and mechanical performance normal.
Resistance constant hot and humid test	Relative humidity:95±3%,Test temperature: 40℃,last 2 hours ,put it after 5 min test the electrical function .Test products during common condition 1-2 hours ,Then test exterior quality.	Measurement satisfied with electrical and mechanical performance normal.
Vibration test	Vibrate Frequency:10-55HZ; Distance :0.35mm;Acceleration :50.0m/s;Sweep frequency cycle:30 times	Electrical and mechanical performance normal
Fall test	From 1m height fall down 3 times freely (vertical direction)	Electrical and mechanical performance normal

RF113 规格

1. 适用范围

本规格书制定了电线的结构和电气特性

同轴线

AWG 32

1. Scope

This specification covers the construction and the electrical properties of wire.

Coaxial Wire

AWG 32

2. 结构/Construction

单位/Unit: mm

项目/Item		单位/Unit	详细资料/Details
Conductor 导体	材料/Material	-	绞合镀银铜丝 Silver-coated copper wire
	构成/Composition	(No./mm)	7/0.08
	外径/OD.	mm	0.24
	绞向/Orientation	-	S
Insulation 绝缘层	材料/Material	-	FEP(进口料)
	绝缘颜色/Insulation color	-	本色/Natural
	标称绝缘厚度/ Nom. Thickness	mm	0.22
	绝缘线径/OD.	mm	0.69
Braid Shield 编织	材料/Material	-	镀锡铜丝 Tinned copper wire
	构成/Composition	(No./mm)	16/4/0.05
	编织密度/Coverage	(%)	>=90
Jacket 外被	材料/Material	-	FEP
	标称绝缘厚度/ Nom. Thickness	mm	0.12
	外径/OD.	mm	1.13±0.10

3. Electrical Properties (at 20℃) /电气特性(20℃时)

项目/Item	单位/Unit	详细资料/Details
导体电阻/Conductor Resistance	Ω/km	571 (Max.)
绝缘电阻/Insulation Resistance	MΩ • km	100 (Min.)
耐压强度(AC)/Dielectric Strength(AC)	V/ 1 Min	500
特性阻抗/Impedance	Ω	50±3
耐温等级/ Temperature	℃	200
额定电压/rated voltage	V	30

4. 电线截面图示如下:

