



SPECIFICATION

APPLICATION FOR APPROVAL

客户名称 CUSTOMER : 汉桑（南京）科技有限公司
客户案号 CS P/N : Hosol5.1
零件名称 PART NAME : 45-2-000437
耀登案号 DEVE NO. : AUK01966B-2.4&5.8G
零件编码 PART NO. : A92320-30
承认日期 DATE : Sep. 13, 2024

客户确认:			
性能工程师	结构工程师	品质	采购
耀登电通科技（昆山）有限公司			
电气工程师	结构工程师	研发经理	项目经理
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天线基本参数 (The Basic Parameters)

项目 (Item)	特性 (Specifications)
天线结构组成	FPC+CABLE
频率 (Frequency)	2.4g~2.5g
驻波比 (V. S. W. R)	≤3
增益 (Gain)	≤3
极化方式 (Polarization)	线极化
特性阻抗 (Impedance)	50Ω
塑胶材质	无
接头形式	IPEX 1 代
工作温度 (Operation temperature)	-40°C to 85°C
储存温度 (Storage temperature)	-40°C to 85°C
湿度	Non-condensing 65°C 95% RH
天线图片	

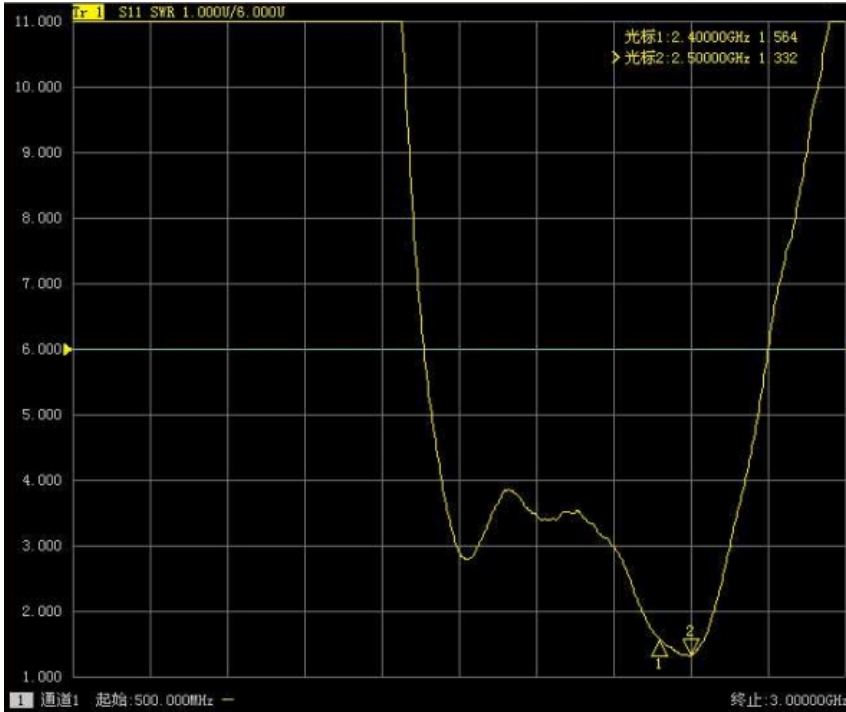
天线一样，组装的位置不同， 所以天线的性能测试数据不同。

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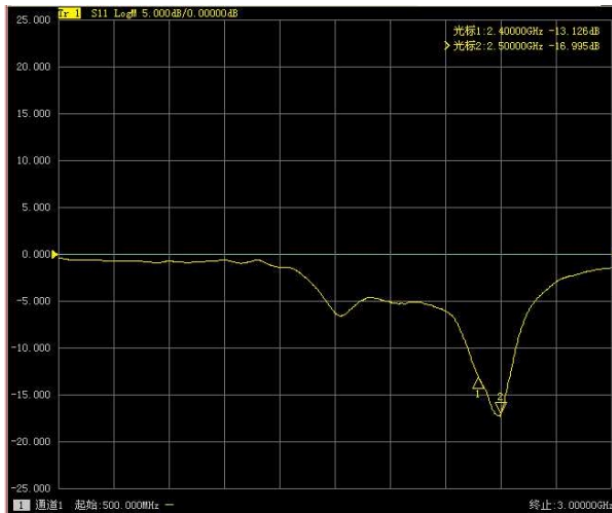
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WIFI-1 电气测试报告 (RF Performance Test Report)

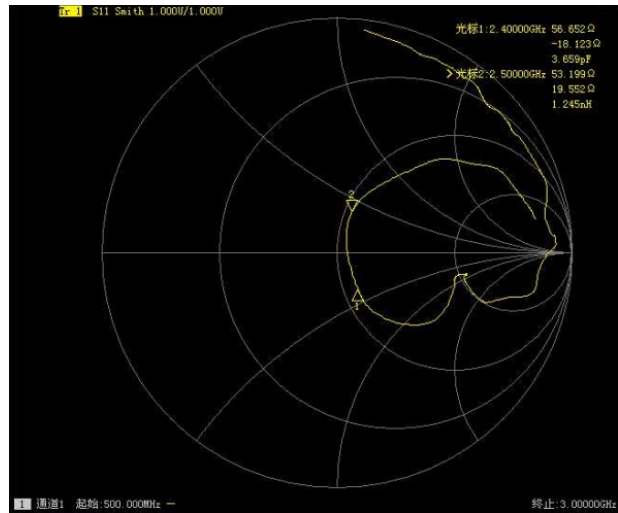
VSWR



RL



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WIFI-1 天线测试数据

Frep (Mhz)	Efii %	Peak EIRP Total (dBi)
2.4G	51.29	2.36
2.41G	51.4	2.50
2.42G	50.7	2.51
2.43G	49.77	2.53
2.44G	50.7	2.75
2.45G	54.2	2.89
2.46G	55.21	2.98
2.47G	53.95	2.99
2.48G	56.89	3.00
2.49G	55.59	2.95
2.50G	53.83	2.97

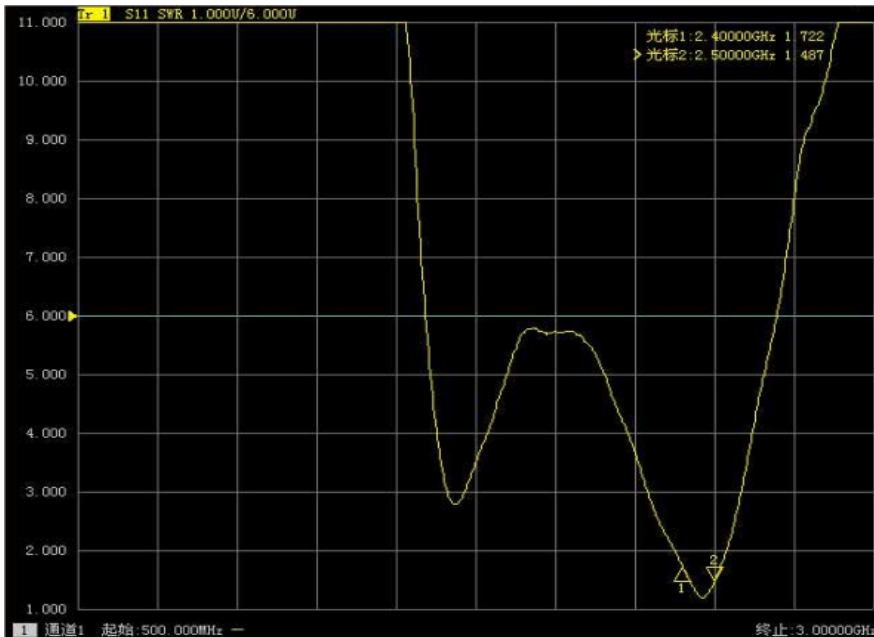
Freq	Efficiency	Gain
5150	13.46	-2.43
5200	16.01	-1.58
5250	17.01	-1.37
5300	16.41	-1.43
5350	15.89	-1.97
5400	16.30	-2.35
5450	13.57	-4.03
5500	14.60	-3.72
5550	16.26	-3.25
5600	19.06	-2.47
5650	21.64	-2.07
5700	28.86	-0.56
5750	35.05	0.41
5800	52.09	2.13
5850	55.60	2.10

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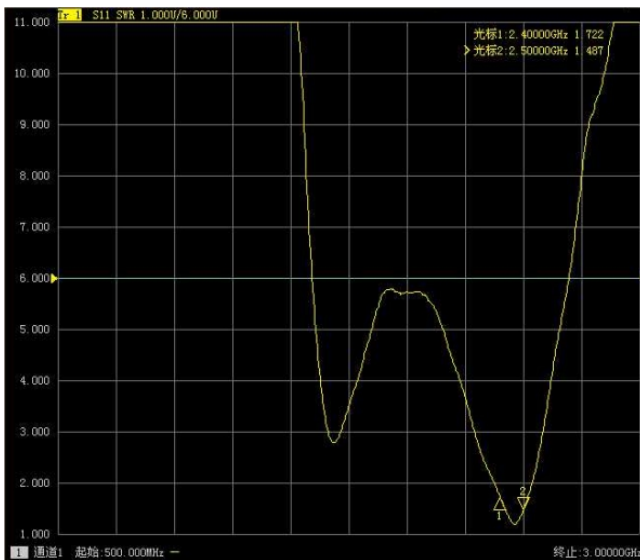
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WIFI-2 电气测试报告 (RF Performance Test Report)

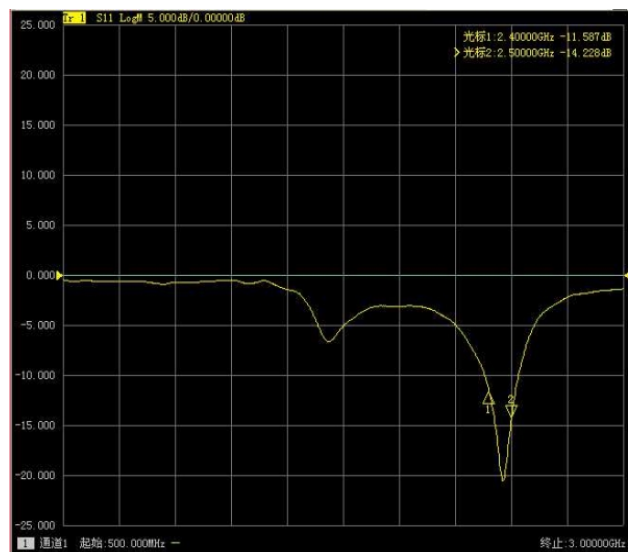
VSWR



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WIFI-2 天线测试数据

Freq (Mhz)	Effi (%)	Peak EIRP Total (dBi)
2.4G	48.19	2.03
2.41G	48.31	2.02
2.42G	48.75	2.13
2.43G	48.42	2.09
2.44G	47.53	2.14
2.45G	51.52	2.58
2.46G	51.88	2.64
2.47G	51.17	2.61
2.48G	52.97	2.84
2.49G	50.93	2.71
2.5G	49.32	2.64

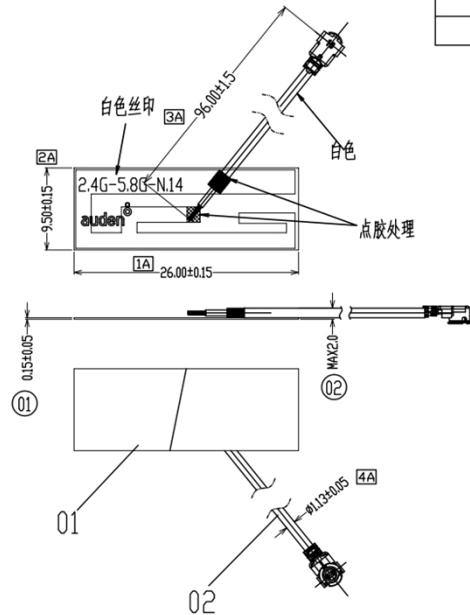
Freq	Efficiency	Gain
5150	13.46	-2.43
5200	16.01	-1.58
5250	17.01	-1.37
5300	16.41	-1.43
5350	15.89	-1.97
5400	16.30	-2.35
5450	13.57	-4.03
5500	14.60	-3.72
5550	16.26	-3.25
5600	19.06	-2.47
5650	21.64	-2.07
5700	28.86	-0.56
5750	35.05	0.41
5800	52.09	2.13
5850	55.60	2.10

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工程图纸 (Product Drawing)

工程变更单	版次	AREA 区域	DATE 日期	CONTENT OF CHANGE 变更事项
	A01		2021/01/12	新图发行
	A00		2023/11/28	更换发行图框模版



环境物质要求:

RoHS Cd	<100
RoHS Hg	<1000
RoHS Pb	<1000
RoHS Cr<VI>	<1000
RoHS PBBs	<1000
RoHS P/BDEs	<1000
RoHS 2-6-2 (邻苯)	<1000
RoHS 2-6-1 (邻苯)	<1000
RoHS 2-6-2 (邻苯)	<1000
RoHS 2-6-1 (邻苯)	<1000

HF:

BR<900	<1000
CL<900	<1000
BR+CL<1500	<1000

除产品需符合国际外观检验标准及可靠度测试要求

DIMENSION TOLERANCE

≤ 6 以下	±0.05
6 以上 - 30	±0.1
30 以上 - 120	±0.15
120 以上 - 315	±0.20
315 以上 - 1000	±0.3
1000 以上 - 2000	±0.5

序号	名称	材料	用量	表面处理	备注	料号
02	同轴线	1.13 白色同轴	1	白色	屏蔽层UV处理	460352-00
01	FPC	P11218+3M9471	1	黑色油墨, 字符标示白色丝印, OSP处理		753672-00

注: 标注1A, 2A, 3A----零尺寸为重点尺寸, 总注4A, 全尺寸类02K (不含重点尺寸)

图名	图号	料号	表面处理	适用机种	开发案号
总装		A92320-90		2.4&5.8G	AUK01966B

材料	投影				
单位	MM	比例	1/1		
文件编号/版本					
AD-QP-0002-24/B				共 1 页	第 1 页

auden AUDEN TECHNO (KUNSHAN) CO.,LTD

技术要求:

1. 未注尺寸见2D;
2. 带A 为出货检验尺寸.
3. 包装方式: PE 袋装

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尺寸报告 (Dimensional check reports)

全尺寸测量报告

Vendor(供应商)		材质名称		天线		Part NO(料号)		A92320-90								Cav. Number(穴数)		Unit(单位)				Comments(设计者签字)							
耀登						Part Name (零件名称)		总装										INCHES ■ MILLIMETERS											
日期		2021/3/9														Rev(版本) V1.0													
MEASURED DIMENSION(实测尺寸)															% TOLERANCE USED(公差使用百分比)		DISPOSITION							ACCEPTABLE VARIANCE					
DIM. #	DIMENSION	DRAWING ZONE	+ TOL.	- TOL.	NOTE	SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4	SAMPLE 5	SAMPLE 6	SAMPLE 7	SAMPLE 8	SAMPLE 9	UPPER	LOWER	0%-25%	25%-50%	50%-75%	75%-100%	100%+	Re-Measure	Accept	Fix Tool	Accept With Variance	DIMENSION	+ TOL.	- TOL.	
1	26.00	1A	0.15	0.15		26.00	26.01	26.02	26.00	26.02	26.01	26.02	26.00	26.02	13%	0%	X												
2	9.50	2A	0.15	0.15		9.51	9.50	9.52	9.50	9.51	9.50	9.52	9.50	9.51	13%	0%	X												
3	96.00	3A	1.50	1.50		96.00	96.01	96.00	96.02	96.00	96.01	96.00	96.02	96.00	1%	0%	X												
4	1.13	4A	0.05	0.05		1.13	1.12	1.13	1.13	1.14	1.12	1.13	1.13	1.14	20%	20%	X												
5	0.15	1	0.05	0.05		0.15	0.15	0.16	0.14	0.15	0.15	0.16	0.14	0.15	20%	20%	X												
6	2.00	2	0.05	0.00		2.00	2.01	2.00	2.01	2.00	2.01	2.00	2.01	2.00	20%	0%	X												

核准: 李金

审核: 关德义

制表: 孙贇贇

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
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可靠性测试报告(Reliability test report)

NO.	ITEM	TEST CONDITION	SPECIFICATION
1.	Low Temperature Test	1. Temperature: $-40 \pm 2^{\circ}\text{C}$ 2. Time: 48hrs	No material deformation is allowed.
2.	High Temperature Test	1. Temperature: $+85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 2. Time: 48hrs	
3.	High Temperature/Humidity Storage Test(non operating)	1. Temperature: $+60 \pm 2^{\circ}\text{C}$ 2. Humidity: $93\% \pm 2\% \text{RH}$ 3. Time: 48hrs	
4.	Salt-Spray Test	35°C , 85%RH, 48Hours(According to MIL-STD-810E) The salt-spray is generated from a 5% salt(NaCl) solution.	NO appear rusting phenomenon is allowed.

耀登电通科技(昆山)有限公司

可靠性测试汇总报告

客户	客户机种	耀登机种	AUK01966B 2.4&5.8G					测试结果					备注		
可靠性测试项目及要										测试结果					备注
序号	测试项目	测试时间	测试仪器	测试条件	判定标准	1	2	3	4	5					
1	盐雾试验	2021/3/2	盐雾测试机	将产品放于盐雾试验机中, 在 $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 的密闭环境中, PH值在6.5-7.2范围内, 用 $5\% \pm 1\%$ 的NaCl溶液连续48h盐水喷雾后, 将样品用清水冲洗干净后检查天线外观;	表面无锈蚀、镀层剥落、起泡等不良现象, RF测试通过为合格。	OK	OK	OK	OK	OK	 盐雾试验.doc				
2	低温试验	2021/3/2	恒温恒湿机	将产品放置在温度为 $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 的低温环境存储48h, 试验完成后在常温环境下放置2小时后检查产品外观。	部件无裂痕、明显的变形、脱落, RF测试通过为合格。	OK	OK	OK	OK	OK	 低温试验.doc				
3	高温试验	2021/3/4	恒温恒湿机	将产品放置在温度为 $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 的高温环境存储48h, 试验完成后在常温环境下放置2 h后检查产品外观。	部件无裂痕、明显的变形、脱落, RF测试通过为合格。	OK	OK	OK	OK	OK	 高温试验.doc				
4	高温高湿试验	2021/3/6	恒温恒湿机	将产品放置在温度为 $60^{\circ}\text{C} \pm 2^{\circ}\text{C}$; 湿度: $93\% \pm 2\% \text{RH}$ 环境存储48h, 试验完成后在常温环境下放置2小时后检查产品外观。	部件无裂痕、明显的变形、脱落, RF测试通过为合格。	OK	OK	OK	OK	OK	 高温高湿试验.doc				
试验结果判定					可靠性试验合格										
核准: 邹菊			审核: 麦建国			测试员: 孙赞赞									

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