



# 东莞市森岭智能科技有限公司

DONGGUAN SLEing INTEL-TECH CO.,LTD

## 承 认 书

### SPECIFICATION APPROVAL SHEET

客 户 :

CUSTOMER

客 户 料 号 :

CUS PART NO

版次:

REV

X2

品 名 / 规 格 :

SPECIFICATION

2.4~2.5/5.15~5.85GHz

单重:

weight

WIFI AUX Antenna L=300mm (Φ0.81+MHF)

供 方 料 号 :

SUP PART NO

SLEingB249760300

日 期 :

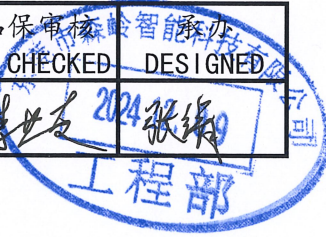
DATE

2024.12.09

厂 商 核 准 :

SUP APPROVED

核准 APPROVED	结构审核 Structure audit	RF审核 RF CHECKED	品保审核 QA CHECKED	智能承办 DESIGNED



客 户 核 准 :

CUS APPROVED

核准 APPROVED	审核 CHECKED	品保审核 QA CHECKED	承办 DESIGNED

## 东莞市森岭智能科技有限公司

DONGGUAN CITY SLEing INTEL-TECH CO.,LTD

中国广东省东莞市松山湖工业东路24号现代企业加速器6栋402

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Fax: +86-0769-89208969

[www.sleing.com](http://www.sleing.com)

正本由承办单位保存



## 承认书项目表 (Spec Item )

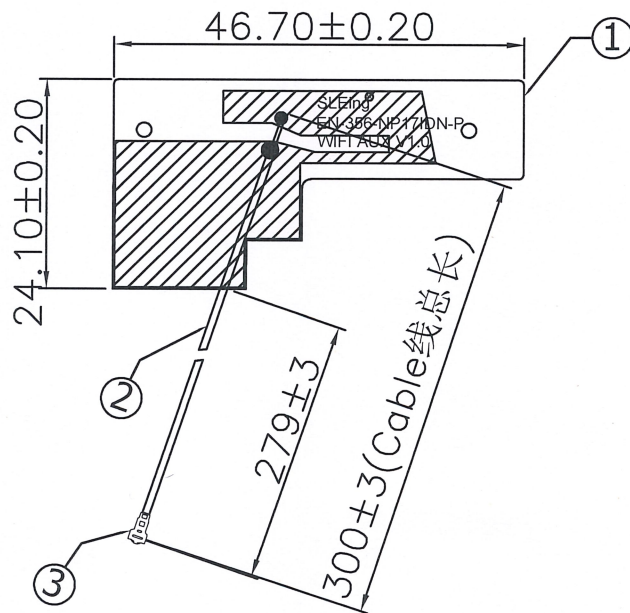
序号 (NO.)	项目 (Project)	备注 (Remark)	页码 (Page)
1	承认书封面 (Spec Cover)		1
2	变更记录 (MODIFICATION RECORD SHEET)		2
3	承认书项目表 (Spec Item )		3
4	工程成品图 (Drawing)		4
5	电性测试报告 (Test Reports )		5
6	天线组装图 (Antenna assembly diagram)		6
7	环境处理 (Environmental treatment)		7
8	S参数测试 (S Parameter Test)		8
9	测试设备 (Test Setup)		9
10	测试效率 (Test Efficiency)		10
11	测试功率灵敏度 (Test TRP/ TIS)		11
12	吞吐量测试 (Throughput test)		12

Give clear indication of:

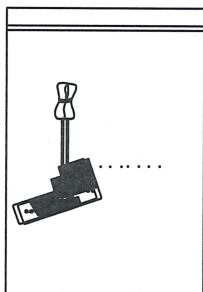
1. The contents of the acknowledgement shall be arranged in order according to the items in the check sheet.
2. The number of copies of the acceptance letter shall be printed according to the customer's requirements, and the SGS report shall be stamped with the engineering seal.
3. All materials shall be confirmed by the customer. Any material/process/changes that may affect product quality and environmental quality must be re-sent to the customer for confirmation before import.
4. SGS report is valid for one year.
5. According to the contents attached to the actual acknowledgement, check the check form: "Yes" is provided, "no" is provided according to customer requirements.

符合ROHS认证标准

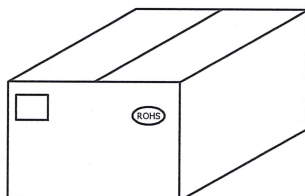
REV.	CONTENT	DATE
X1	First Sample	2024.10.30



Specification:  
 Frequency Rang:2400~2500/5150~5850(带机测试)  
 Return Loss:-10dB or less  
 VSWR:1.92 Max



50pcs/Bundle  
Packing:100pcs/bag



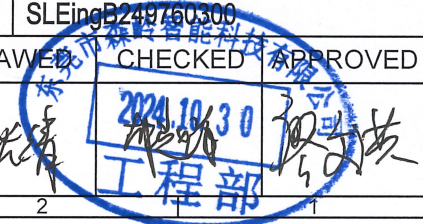
外箱须贴ROHS标签与物料标签各1PCS

SLEing® 森岭  
 东莞市森岭智能科技有限公司  
 DONGGUAN SLEing INTEL-TECH CO., LTD

CUSTOMER	
PART NO	
TITLE	WIFI AUXANTENNA
S.L P/NO	SLEingB249760300
SIZE	A4
DRAWN	张清
CHECKED	张清
APPROVED	张清

3	Connector	MHF Plug for $\Phi 0.81$ Cable	第四代端子	1
2	Cable	$\Phi 0.81$ mm Coaxial Cable Grey(低损耗),50 $\Omega$		1
1	FPC	L46.7*W24.1*T0.2mm,Color:Black	300LSE Adhesive	1
NO	PART NAME	DESCRIPTION	REMARK	Q'TY

	TOLERANCE UNLESS OTHERWISE SPECIFIED		
	UNIT:mm	ANGLES $\pm 0.5^\circ$	X. $\pm 0.3$
	SHEET: 1/1	0.XX $\pm 0.05$	XX. $\pm 0.5$
SCALE: 1/1		XXX. $\pm 2.0$	





# 东莞市森岭智能科技有限公司

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## 电性测试报告

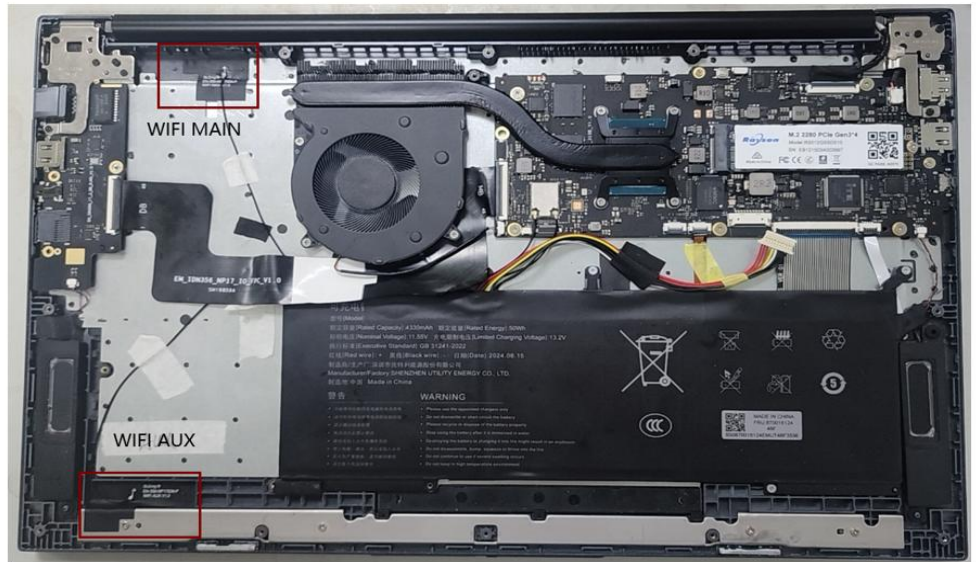
## Test Reports

Electrical Properties	
Frequency	2400-2500/5150-5850 MHz (带机测试)
Impedance	50 Ohm Nominal
V. S. W. R	$\leq 1.92$
Return Loss	-10dB Max
Radiation	Omni-directional
Gain (Peak)	2.4G:-3.65 dBi/5.8G:-3.45dBi
Polarization	Linear, Vertical
Admitted Power	2 W
Connector	MHF
Physical Properties	
Antenna Material	FPCB
Cable Type	$\Phi 0.81\text{mm}$ Grey
Operating Temp	-40°C-85°C
Storage Temp.	-5°C-30°C

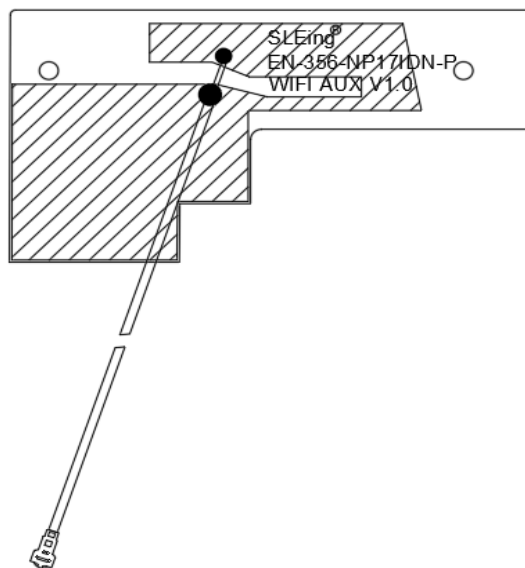
天线组装图

Antenna assembly diagram

Device



Antenna

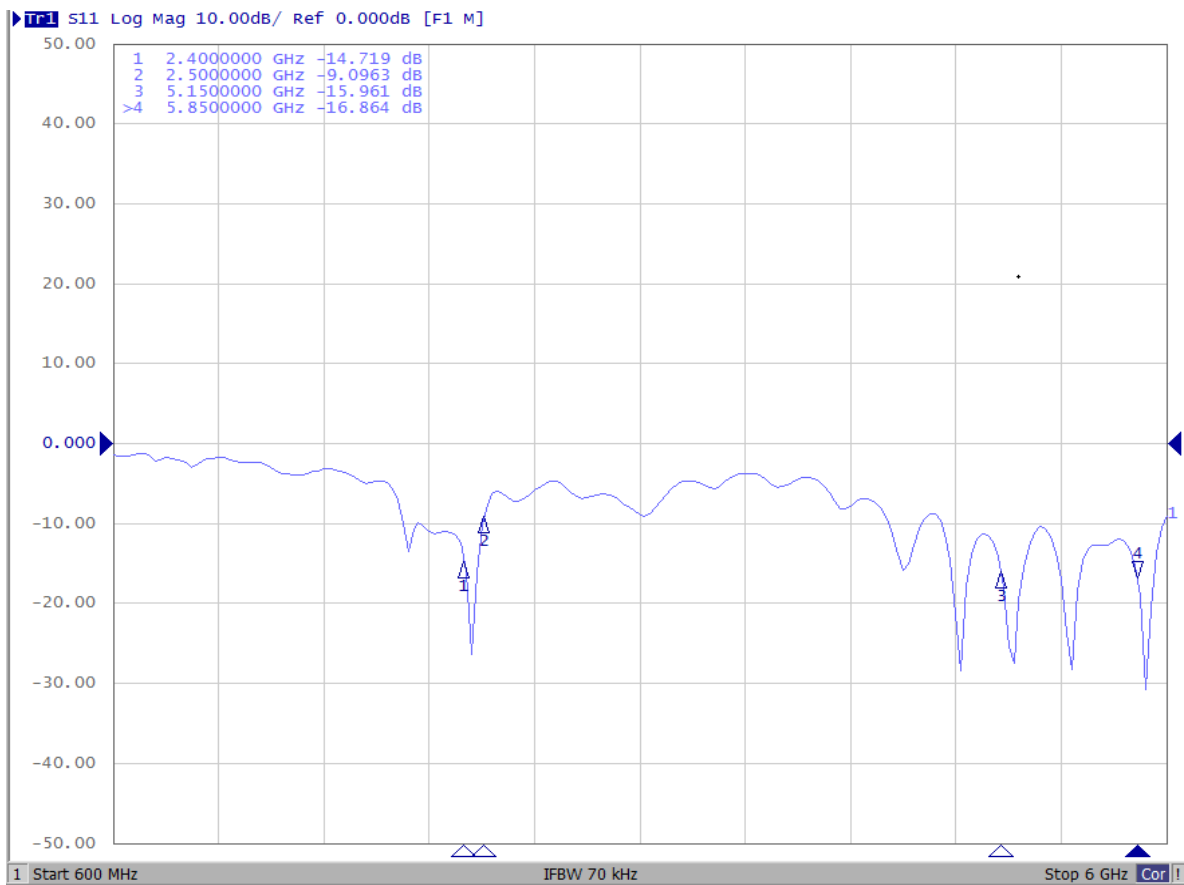


### S参数测试 S Parameter Test

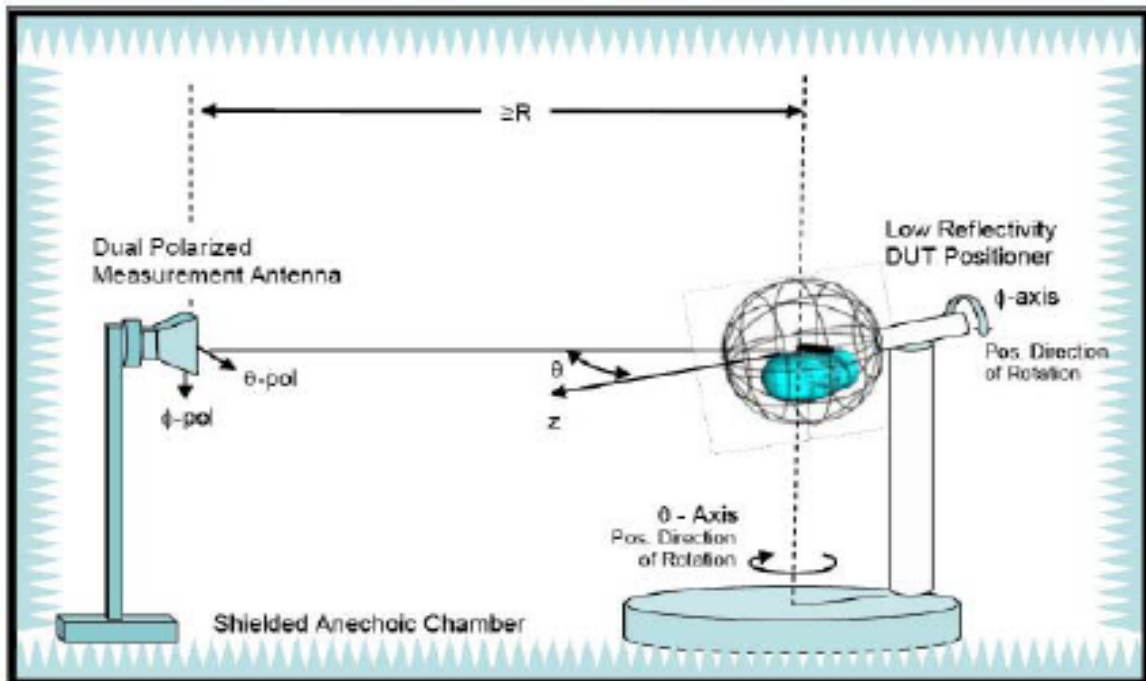
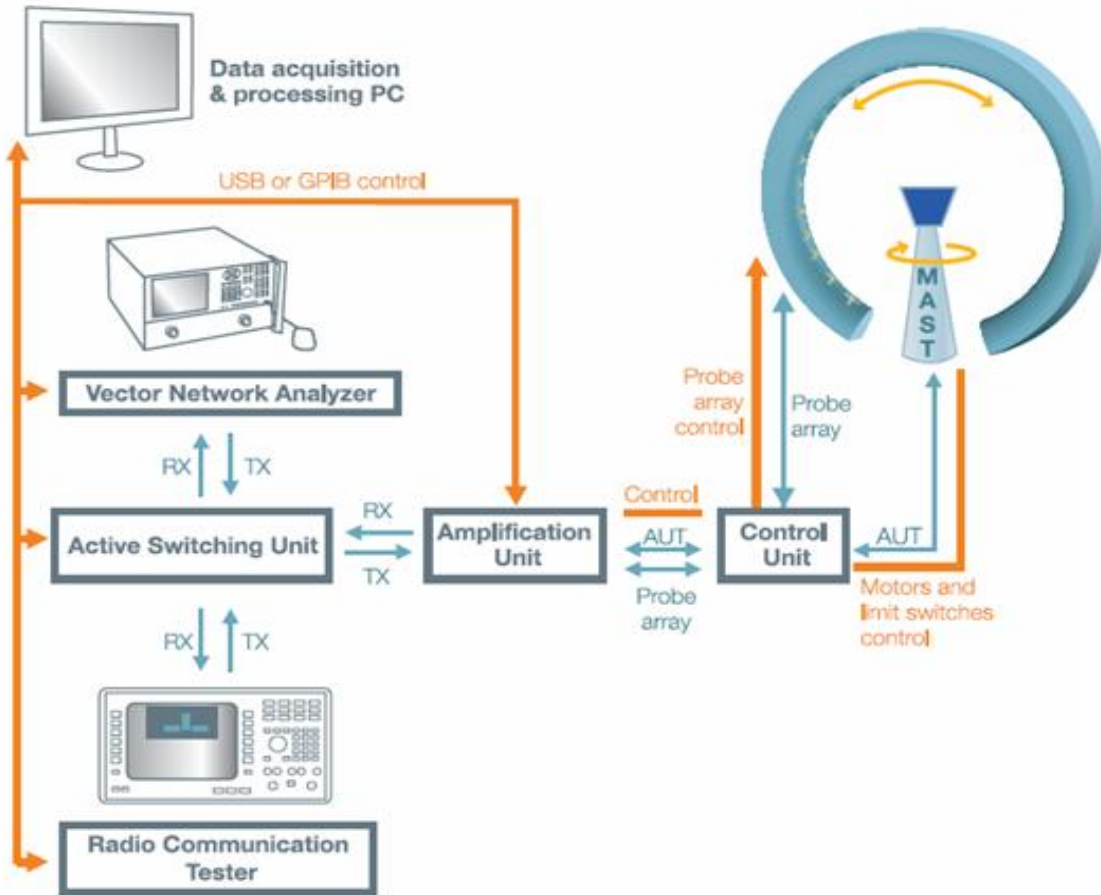
Agilent E5071C Network Analyzer



RF Antenna (Return Loss)



# 测试设备 Test Setup







# 测试效率 Test Efficiency

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Efficiency (dBi)	-3.95	-3.96	-4.02	-3.98	-4.07	-3.99	-3.90	-3.89	-3.75	-3.65	-3.73
Efficiency (%)	40.24	40.16	39.61	40.02	39.16	39.90	40.77	40.84	42.15	43.12	42.37

12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
-3.69	-3.62	-3.88	-4.01	-3.45	-3.91	-4.10	-4.02	-3.85	-4.30	-4.57	-4.23	-4.39	-4.30	-4.38
42.73	43.49	40.92	39.68	45.14	40.69	38.87	39.67	41.24	37.13	34.92	37.74	36.42	37.14	36.51

**测试功率灵敏度****Test TRP/ TIS****2.4G WIFI**

Channel No	TRP (dBm)	TIS (dBm)
1	10.66	-80.43
6	11.37	-81.26
11	11.64	-81.34

**5.8G WIFI**

Channel No	TRP (dBm)	TIS (dBm)
36	10.6	-73.93
149	9.31	-73.4
161	9.47	-73.54

## 产品包装规范

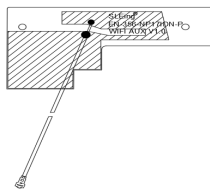
# Product packaging specification

日期/Date: 2024.10.30

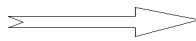
page:

1of1

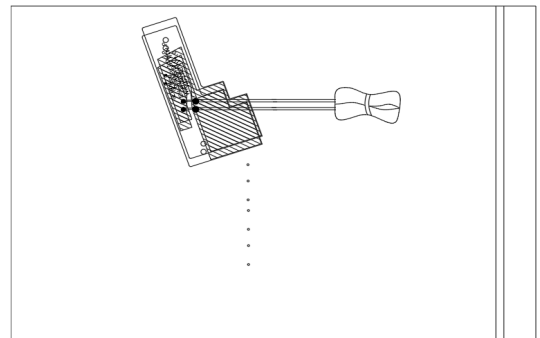
成品名称 Name of finished product	WIFI AUX	客户 customer	
成品料号 Finished product number	SLEingB249760300	版本 REV.	X1



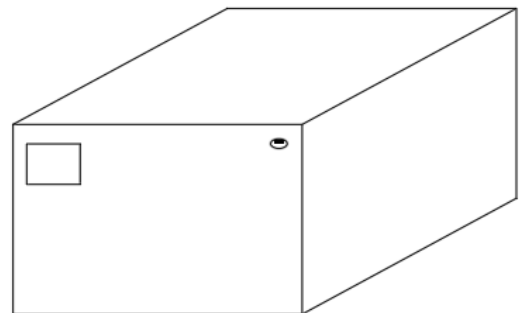
单PCS天线



(2) 50PCS一扎, 2扎 (100PCS) 装一PE袋, PE袋上需标贴产品标签, 以标示产品名称、规格、数量、日期并热封处理。



(3) 装箱: 每箱装20-60包 (共2000-6000PCS)



(4) 外箱均需贴产品标签, 以标示产品名称、规格、数量、日期。

(5) 每批次产品均需附上“出厂检验报告”。

(6) 储存条件: 温度:  $-5^{\circ}\text{C}$ ~ $+30^{\circ}\text{C}$ , 湿度: 20%~70%, 年限一年。

承办 DESIGNED	胡赵海 (Jreey)	审核 CHECKED	胡赵海 (Jreey)	核准 APPROVED	朱正锐 (Jongrei)
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# 东莞市森岭智能科技有限公司

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产品各零部件ROHS清单(ROHS list of all parts of the product):

## 产品ROHS及REACH信息

产品信息			ROHS及REACH信息										
产品料号	部件名称	材质	供应商	ROHS报告编号	测试机构	报告日期	结果	REACH报告编号	测试机构	报告日期	结果		
FPC	端子	基材铜箔	蔡仓格蒂	SHAEC24000428806	SGS	2024.01.12	符合	SHAEC24000428807	SGS	2024.01.12	符合		
		背胶	3M	SHAEC23021627701	SGS	2023.10.27	符合	CANEC24006898001	SGS	2024.04.16	符合		
		阻焊油墨	凯耀	A2240082622101001E	CTI	2024.02.27	符合	A2240014575101002E	CTI	2024.01.27	符合		
		字符油墨	凯耀	A2240383951101001E	CTI	2024.07.05	符合	ETR23A00862M01	SGS	2023.10.27	符合		
		OSP	豪杰行	SZXE24000007402	SGS	2024.01.08	符合	SZXE24000007404	SGS	2024.01.08	符合		
		补强	富邦电子	A2240082746101008E	CTI	2024.03.01	符合	A2240082746103008E	CTI	2024.03.04	符合		
		CABLE	护套/绝缘 内外导体	铜	海联通	NGBPC24000131242	SGS	2024.01.16	符合	NGBPC24000131246	SGS	2024.01.16	符合
						CANEC24002005301	SGS	2024.01.31	符合	CANEC24002005303	SGS	2024.01.31	符合
						CANEC24000977301	SGS	2024.01.22	符合	CANEC23007987103	SGS	2023.10.10	符合
		端子	镀金	铜	翔腾电子	A2240410234101001E	CTI	2024.07.18	符合	A2240409846101001E	CTI	2024.07.18	符合
塑胶PBT	新光					SHAHL24019391801	SGS	2024.08.29	符合	SHAHL24019392201	SGS	2024.08.29	符合