

承 认 书

SPECIFICATION APPROVAL SHEET

客 户 :

CUSTOMER

客 户 料 号 :

CUS PART NO

版次:

REV

X1

品 名 / 规格 :

SPECIFICATION

2.4~2.5/5.15~5.85GHz

WIFI-1 Antenna L=135mm(Ø1.13+MHF)

单重:

weight

供 方 料 号 :

SUP PART NO

SLEingB244860135

日 期 :

DATE

2024.02.26

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	承办 DESIGNED
<i>Touym</i>	H2u	JDM	LSX	<i>xam</i>

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

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正本由承办单位保存

[illegible]



东莞市森岭智能科技有限公司

DONGGUAN SLEing INTEL-TECH CO., LTD

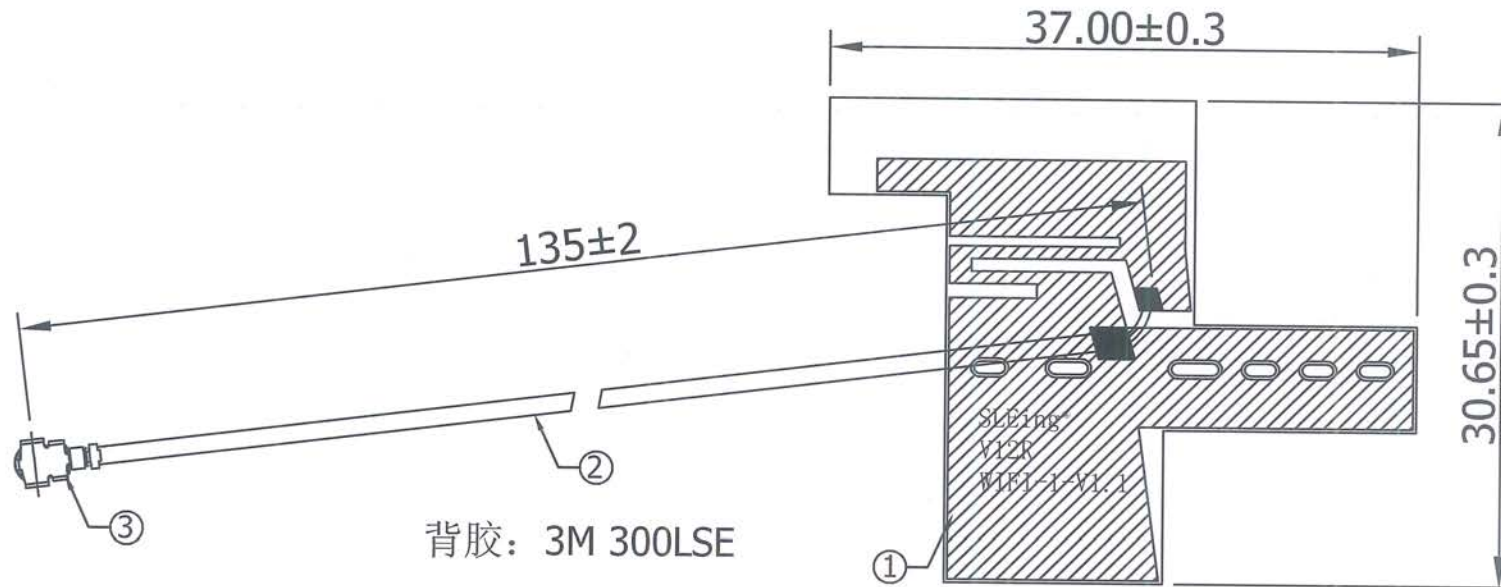
承认书项目表 (Spec Item)

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	S参数测试 (S Parameter Test)		7-8
8	测试设备 (Test Setup)		9
9	OTA		10-11

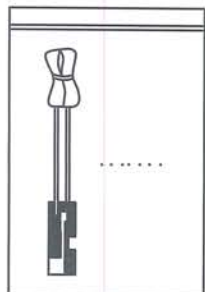
Give clear indication of:

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.

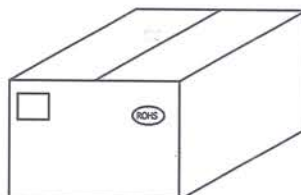
REV.	CONTENT	DATE
X1	First Sample	2024.02.26



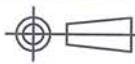
Specification:
Frequency Rang:2.4~2.5/5.15~5.85GHz(带机测试)
Return Loss:-10dB or less
VSWR:1.92 Max



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	
			S.L P/NO	
 TOLERANCE UNLESS OTHERWISE SPECIFIED			SIZE	DRAWN
			CHECKED	APPROVED
UNIT:mm SHEET: 1/1 SCALE: 1/1			A4 2024.02.26 Xiang 1/24 Jongyue	
ANGLES ±0.5° 0.XX ±0.05 XXX. ±2.0				
X. ±0.3 XX. ±0.5 XXX. ±2.0				

NO	PART NAME	DESCRIPTION	REMARK	Q'TY
3	Connector	MHF Plug for Φ1.13 Cable	第一代端子	1
2	Cable	Φ1.13mm Cable,Dark Grey,50Ω		1
1	FPCB	FPC,L37.0*W30.65*T0.1mm,Color:Black	300LSE Adhesive	1



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电性测试报告

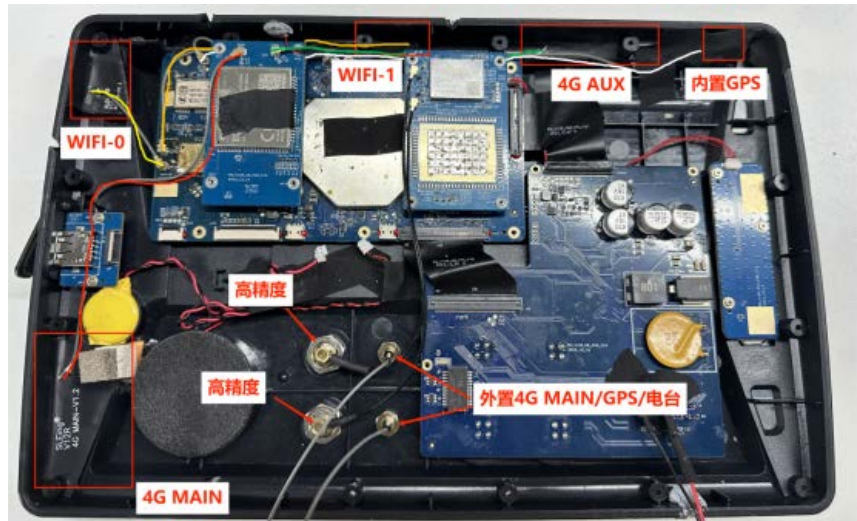
Test Reports

Electrical Properties	
Frequency	2.4~2.5/5.15~5.85GHz(带机测试)
Impedance	50 Ohm Nominal
V.S.W.R	≤ 1.92
Return Loss	-10 dB Max
Radiation	Omni-directional
Gain (Peak)	4.51dBi
Polarization	Linear, Vertical
Admitted Power	2 W
Connector	MHF
Physical Properties	
Antenna Material	FPCB
Cable Type	$\Phi 1.13\text{mm}$ Dark Grey
Operating Temp.	-40~+85 °C
Storage Temp.	-5~+30 °C

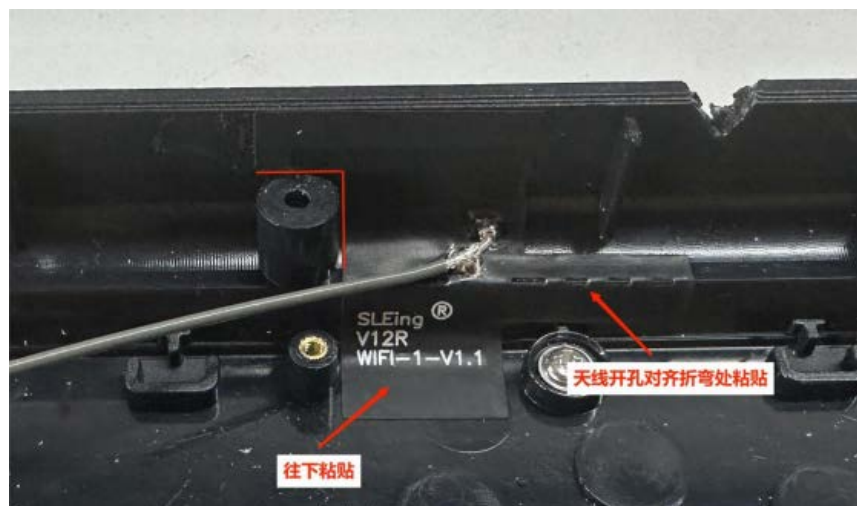
天线组装图

Antenna Profile

Device



Antenna



S 参数测试

S Parameter Test

Agilent E5071C Network Analyzer



WiFi 驻波 Antenna (NO.1)



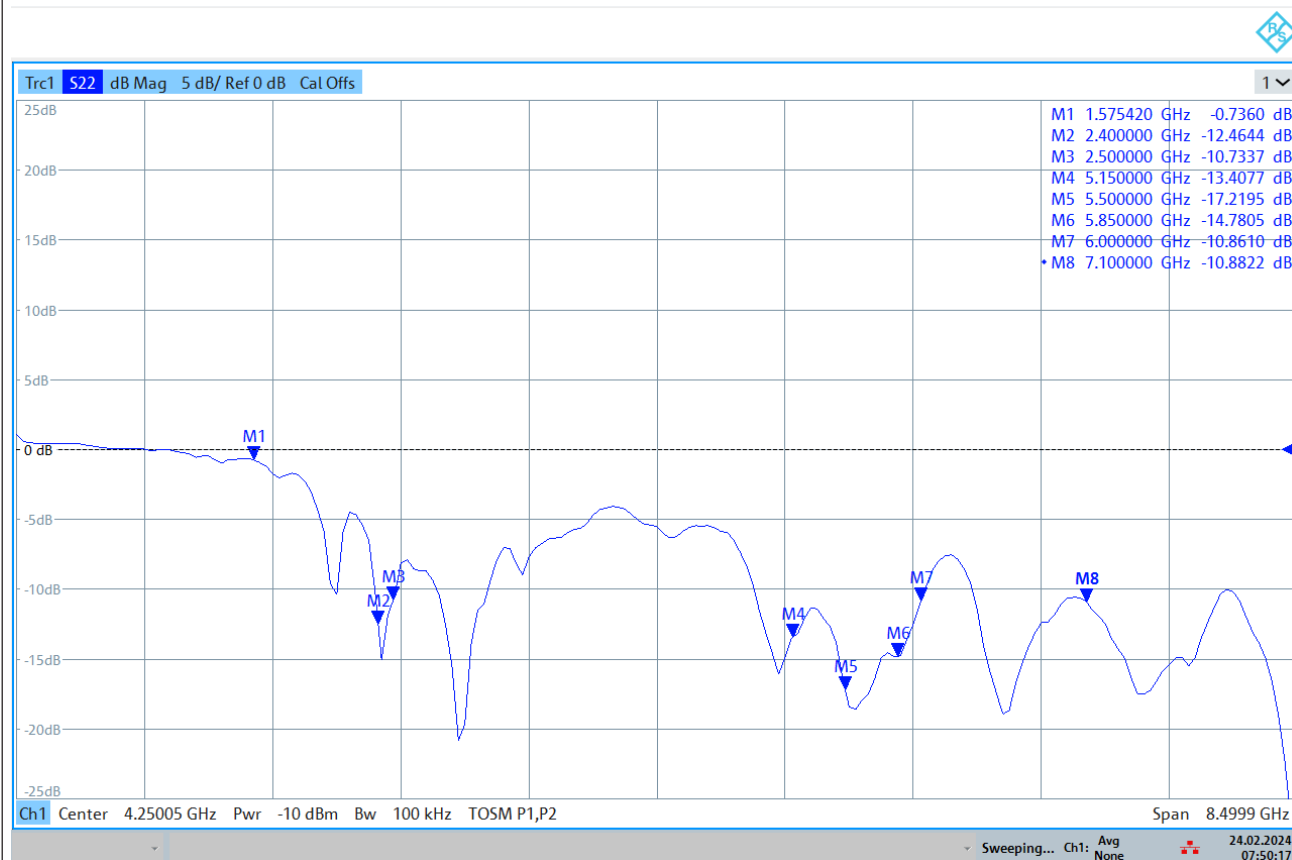
S 参数测试

S Parameter Test

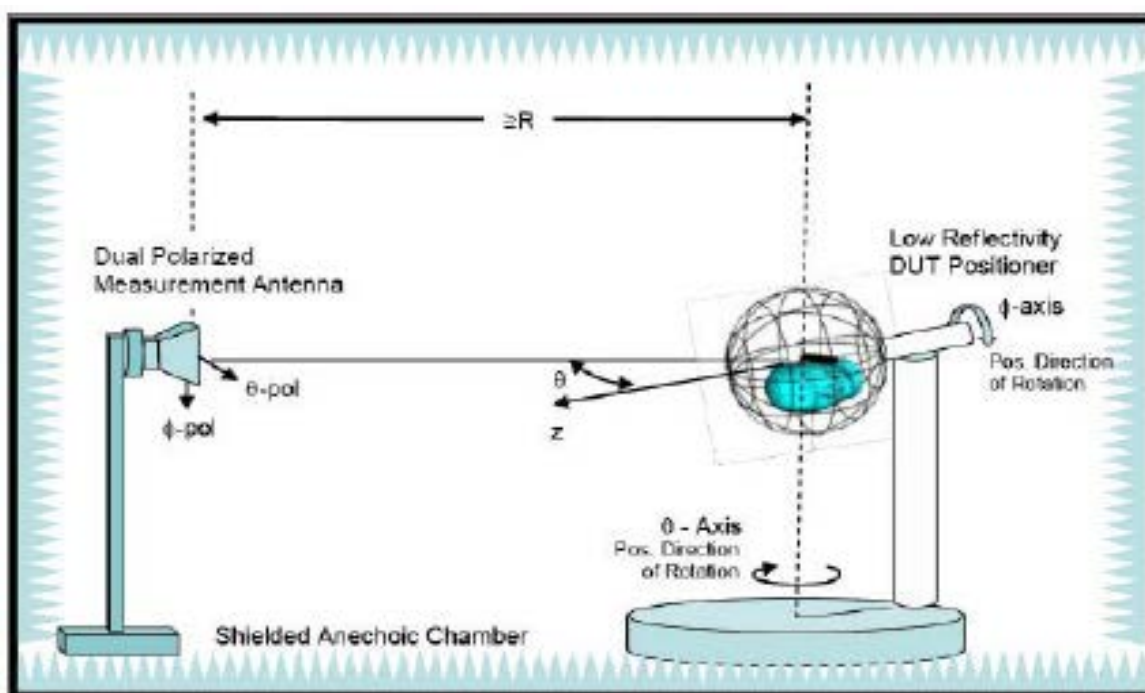
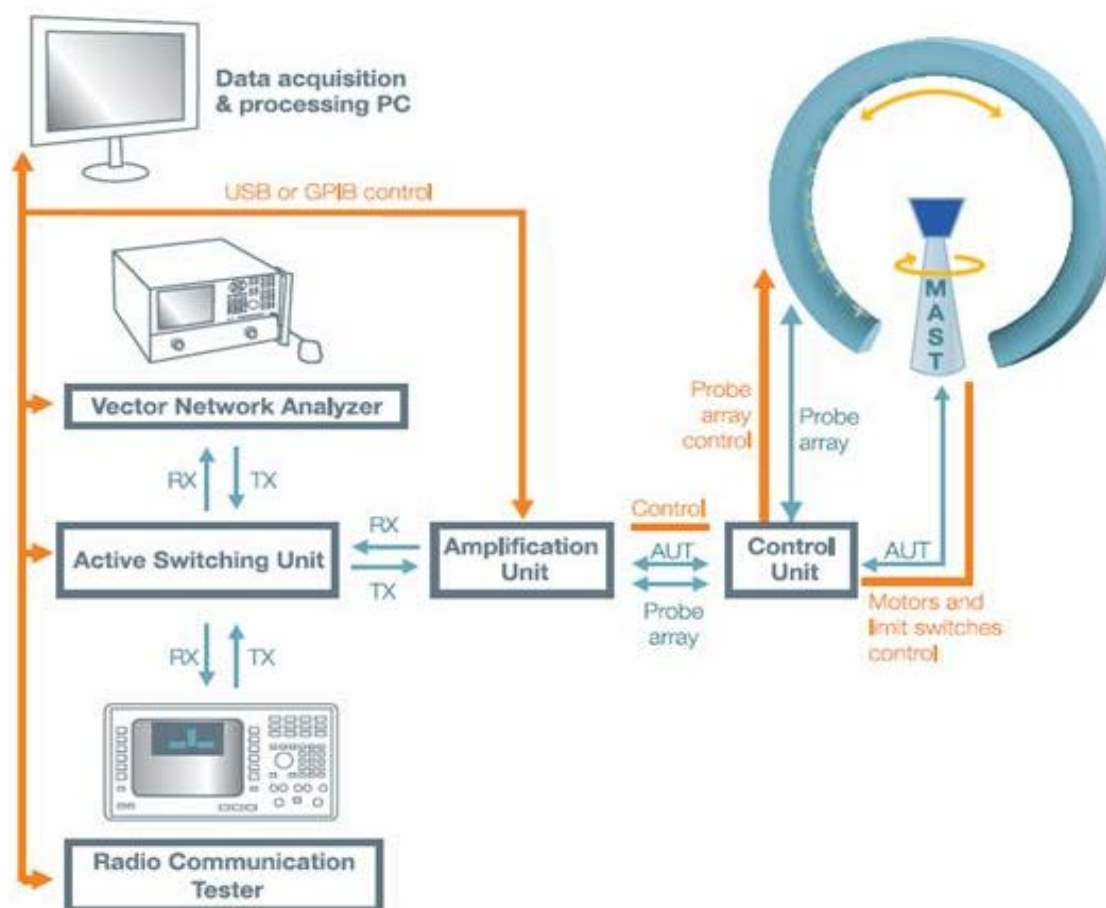
Agilent E5071C Network Analyzer



WiFi 回波损耗 Antenna (NO.1)



测试设备 Test Setup



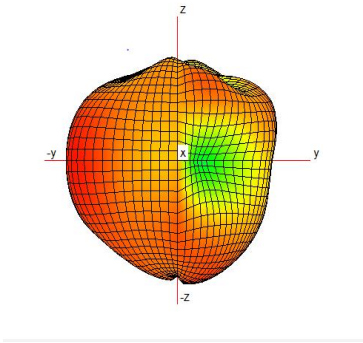


OTA

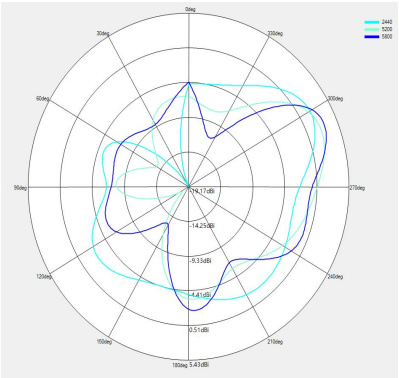
项目：主+副天线		Performance request（性能要求）	信道	结果	判定	备注
2.4G WiFi_11b_CCK_11M	TRP	$\geq 11\pm 1\text{dbm}$	1	13.99	PASS	
			7	13.78		
			13	14.32		
	TIS	$\leq -80\text{dbm}$	1	-81.57	PASS	
			7	-78.35		
			13	-80.25		
5G WiFi_11a_54M	TRP	$\geq 9\text{dbm}$	36	7.29	PASS	
			64	10.16		
			157	12.43		
	TIS	$\leq -64\text{dbm}$	36	-73.04	PASS	
			64	-73.34		
			157	-68.99		
WIFI漫游	测试环境：EM-public3F；频率：5GHz；协议：802.11ac；信道：AP随机 测试方法：在多个AP之间穿梭，利用软件查看热点的信号值					
	断开当前AP时信号值：		/			
	当前AP信号到达临界值后到切换至下个AP的时间		/			
	断开当前AP后丢包数		/			
项目：副天线		Performance request（性能要求）	结果	判定	备注	
2.4G WiFi_11b_CCK_11M	TRP	$\geq 11\pm 1\text{dbm}$	\			
	TIS	$\geq -80\text{dbm}$	\			
2.4G WiFi_11g_OFDM_54M	TRP	$\geq 10\pm 1\text{dbm}$	\			
	-62.78	$\geq -67\text{dbm}$	\			
2.4G WiFi_11n_20M_MCS7	TRP	$\geq 9\pm 1\text{dbm}$	\			
	TIS	$\geq -63\text{dbm}$	\			
5G WiFi_11a_54M	TRP	$\geq 10\pm 1\text{dbm}$	\			
	TIS	$\geq -65\pm 1\text{dbm}$	\			
5G WiFi_11n_20M_MCS7	TRP	$\geq 9\pm 1\text{dbm}$	\			
	TIS	$\geq -65\pm 1\text{dbm}$	\			

chNo	Freq (MHz)	Gain
1	2400	1.78
2	2410	1.97
3	2420	2.11
4	2430	2.20
5	2440	2.31
6	2450	2.45
7	2460	2.46
8	2470	2.47
9	2480	2.45
10	2490	2.30
11	2500	2.33
12	5150	3.73
13	5200	3.59
14	5250	3.72
15	5300	4.08
16	5350	3.98
17	5400	4.36
18	5450	4.82
19	5500	4.94
20	5550	4.76
21	5600	4.39
22	5650	4.44
23	5700	4.51
24	5750	4.43
25	5800	4.48
26	5850	4.47

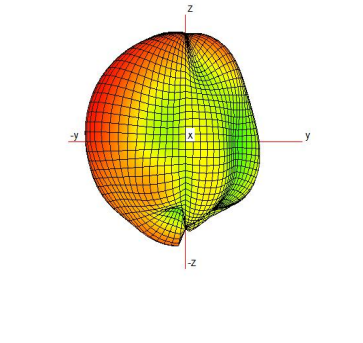
2440MHz



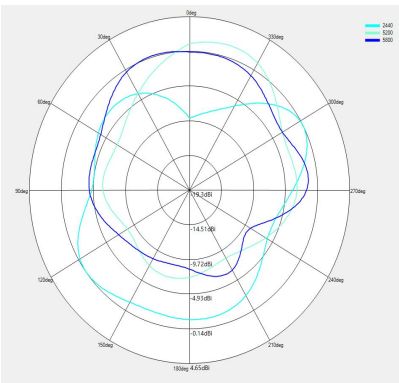
XOY



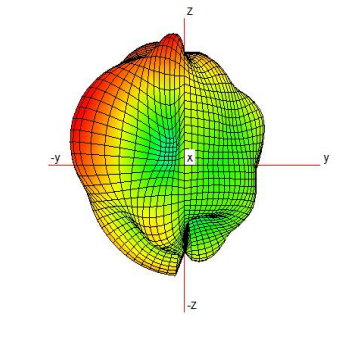
5200MHz



XOZ



5800MHz



YOZ

