

承 认 书

SPECIFICATION APPROVAL SHEET

客 户 :
CUSTOMER _____

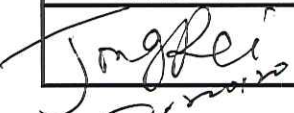
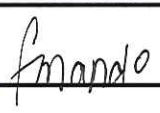
客 户 料 号 : _____ 版次 :
CUS PART NO _____ REV X1

品 名 / 规格 : 2.4~2.5/5.15~5.85GHz 单重 :
SPECIFICATION MAIN WIFI Antenna L=80mm(Ø0.81+MHF) weight _____

供 方 料 号 : _____
SUP PART NO SLEingB225120080

日 期 :
DATE 2022.01.20

厂 商 核 准 :
SUP APPROVED

核准 APPROVED	审核 CHECKED	品保审核 QA CHECKED	承办 DESIGNED
		王 Q	wxy

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



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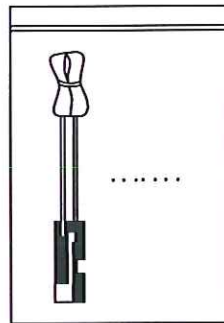
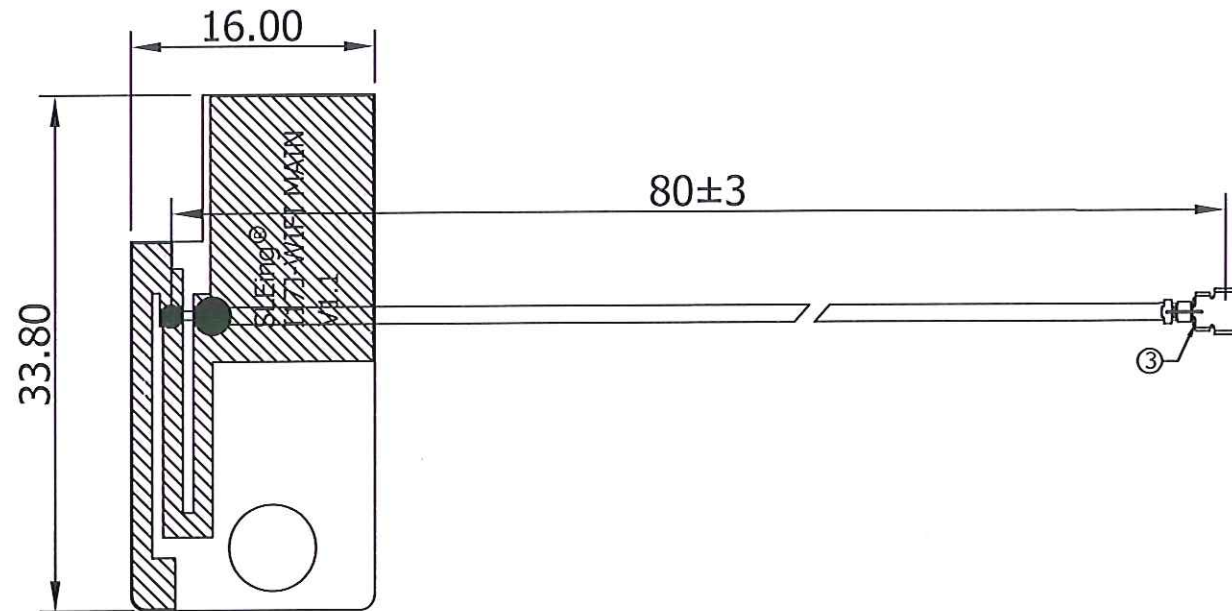
承认书项目表

序号	项目	附件资料		备注
		有	无	
1	承认书封面 (Spec Cover)	☐	☐	1. 封面需注明产品料号、品名规格 2. 经主管核准后加盖公司印章
	客户满意度 (Customer satisfaction)	☐	☐	请客户对我司给予真诚的评价
2	承认书项目表 (Spec Item)	☐	☐	
3	工程成品图 (Drawing)	☐	☐	
4	电性测试报告 (Test Reports)	☐	☐	
5	S参数测试 (S Parameter)	☐	☐	与产品一致
6	方向图(Patten)/测试效率 (Test Efficiency)	☐	☐	与产品一致
7	样品检验记录 (Sample inspection)	☐	☐	
8	SGS报告 (SGS Report)	☐	☐	1. 需依产品材质类别及颜色分别提供 2. 报告有效期为一年
9	其它	☐	☐	依贵司具体要求另行说明
10		☐	☐	
11		☐	☐	

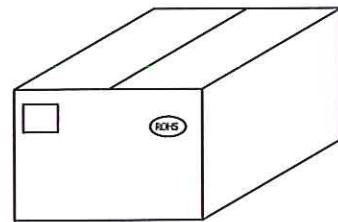
说明:

1. 承认书内容需依查核表项目依顺序排列。
2. 承认书依客户要求打印份数, SGS报告需加盖工程章。
3. 所有材料一律经过客户确认后, 任何材料/制程/可能影响产品品质及环境品质的变更, 都必需重新送样给客户确认后方可导入。
4. SGS报告有效期为一年。
5. 依实际承认书所附件内容在查核表中勾选: “有” 为已提供, “无” 根据客户要求提供。

REV.	CONTENT	DATE
X1	First Sample	2022.01.20

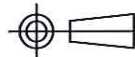


50pcs/Bundle
Packing:100pcs/bag



外箱须贴ROHS标签与物料标签各1PCS

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

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 MAIN ANTENNA	
	S.L P/NO		SLEingB225120080	
 TOLERANCE UNLESS OTHERWISE SPECIFIED	SIZE	DRAWN	CHECKED	APPROVED
	UNIT:mm	ANGLES ±0.5°	X. ±0.3	
	SHEET: 1/1	0.XX ±0.05	XX. ±0.5	
SCALE: 1/1		XXX. ±2.0		
A4		W x Y	Imando	JongRe



NO	PART NAME	DESCRIPTION	REMARK	Q'TY
3	Connector	MHF Plug for Φ0.81 Cable	第四代端子	1
2	Cable	Φ0.81mm Coaxial Cable black,50Ω		1
1	FPCB	FPC,L33.8*W16.0*T0.1mm,Color:Black	3M 300LSE	1

电性测试报告
Test Reports

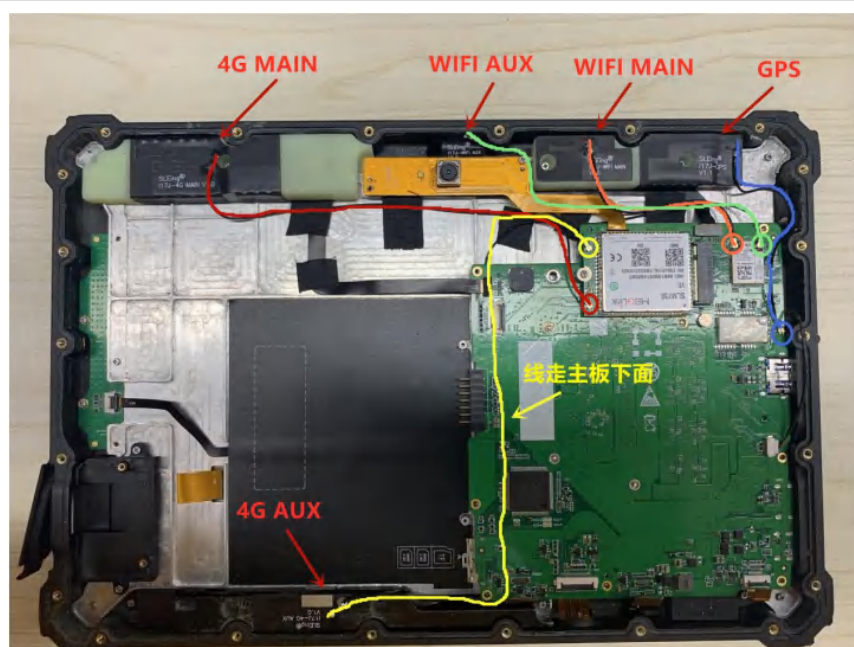
Electrical Properties	
Frequency	2.4~2.5/5.15~5.85GHz(带机测试)
Impedance	50 Ohm Nominal
V.S.W.R	≤ 1.92
Return Loss	-10 dB Max
Radiation	Omni-directional
Gain (Peak)	2 $\pm$ 0.5 dBi
Polarization	Linear, Vertical
Admitted Power	2 W
Connector	MHF
Physical Properties	
Antenna Material	FPCB
Cable Type	Φ 0.81mm Black
Operating Temp.	-40~+85 °C
Storage Temp.	-40~+85 °C

天线组装图 Antenna Profile

Device



Antenna



S 参数测试

S Parameter Test

Agilent E5071C Network Analyzer

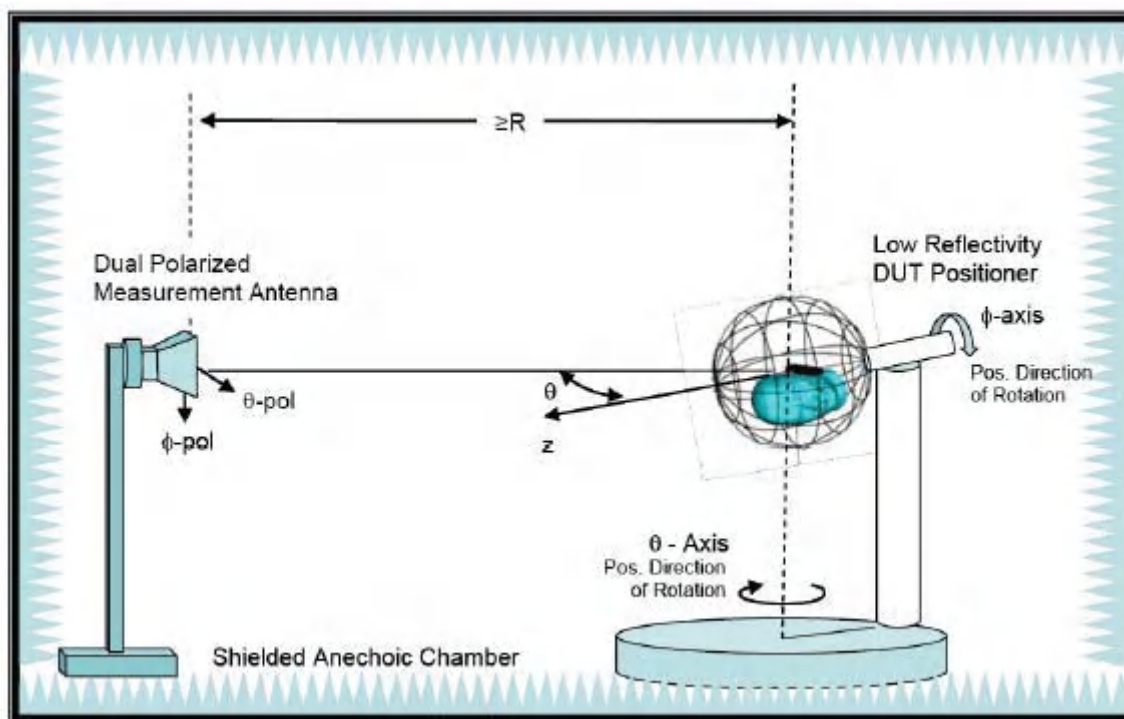
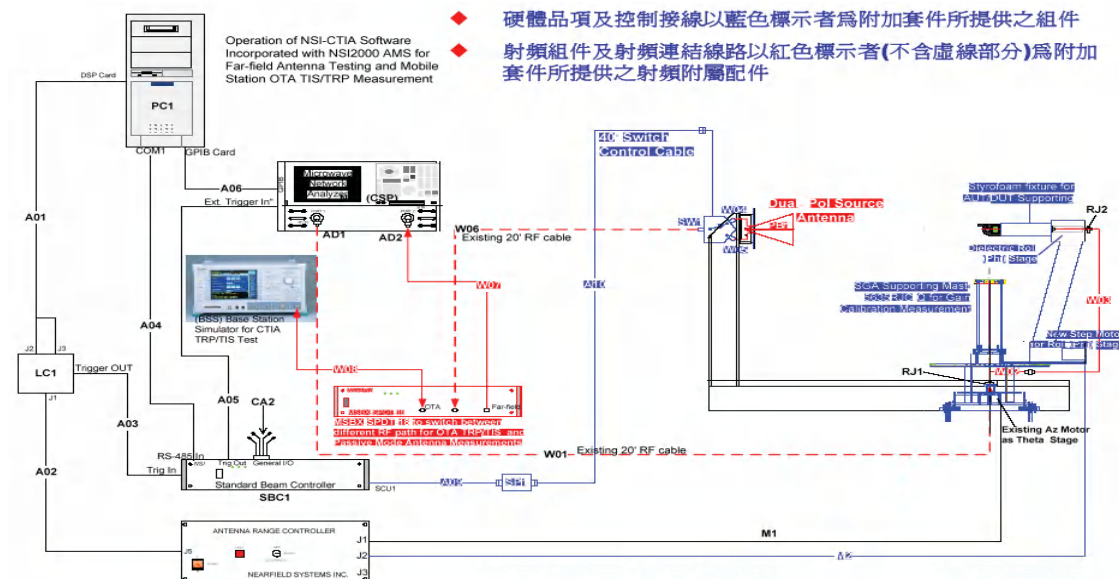


WiFi MAIN Antenna (NO.1)



测试设备 Test Setup

NFC-500S 3D Chamber Coordinate System Definition



Configuration of 3D Chamber



测试效率

Test Efficiency

WIFI MAIN无源测试

WIFI MAIN	Frequency(MHz)	2400	2405	2410	2415	2420	2425	2430	2435	2440	2445	2450	2455	2460	2465	2470	2475	2480
	Gain (dBi)	3.81	3.87	4.00	4.10	4.10	4.05	4.05	4.07	4.21	4.28	4.34	4.39	4.40	4.40	4.41	4.47	4.45
	Efficiency(%)	48.64	49.03	50.35	51.64	51.95	51.98	52.49	53.20	53.44	53.32	52.91	52.43	51.42	50.32	49.52	48.80	47.79
2485	2490	2495	2500	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
4.50	4.62	4.57	4.46	3.90	3.78	3.34	4.26	4.86	3.59	4.17	5.53	3.75	2.79	4.40	4.75	3.60	2.39	3.81
46.92	46.19	45.15	44.00	50.11	50.63	51.16	56.66	57.14	45.89	51.92	64.14	54.17	43.85	53.45	59.04	47.67	44.36	54.60

WIFI MAIN有源测试

WIFI天线OTA测试报告					
Test Date:		2022/1/17			
项目: 主+副天线		Performance request (性能要求)	信道	结果	判定
2.4G WiFi_11b_CCK_11M	TxP	≥11±1dbm	1	11.65	PASS
			7	11.44	
			13	11.62	
	TxR	≤-80dbm	1	-80.34	PASS
			7	-81.43	
			13	-82.61	
2.4G WiFi_11g_OFDM_54M	TxP	≥10±1dbm	1	/	
			7	/	
			13	/	
	TxR	≤-67dbm	1	/	
			7	/	
			13	/	
2.4G WiFi_11n_20M_MCS7	TxP	≥9±1dbm	1	/	
			7	/	
			13	/	
	TxR	≤-63dbm	1	/	
			7	/	
			13	/	
5G WiFi_11a_54M	TxP	≥10±1dbm	36	11.25	PASS
			64	10.76	
			157	11.64	
	TxR	≤-65±1dbm	36	-69.54	PASS
			64	-69.69	
			157	-69.06	
5G WiFi_11n_20M_MCS7	TxP	≥9±1dbm	36	/	PASS
			64	/	
			157	/	
	TxR	≤-65±1dbm	36	/	PASS
			64	/	
			157	/	



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

测试效率

Test Efficiency

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	$\geq -65 \pm 1 \text{ dbm}$	\		