

承 认 书

SPECIFICATION APPROVAL SHEET

客 户 :
CUSTOMER _____

客 户 料 号 :
CUS PART NO _____

版次:
REV X1

品 名 / 规格 : 2.4~2.5/5.15~5.85GHz
SPECIFICATION WIFI+BT Antenna L=50mm(Ø1.13+MHF)

单重:
weight _____

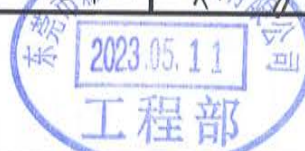
供 方 料 号 :
SUP PART NO SLEingB241080052

日 期 :
DATE 2023.05.11

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>Janfm</i>	<i>H24</i>	<i>JDM</i>	<i>LSY</i>	<i>Xiaoy</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



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变更记录

MODIFICATION RECORD SHEET

版本 (REV.)	更改日期 (Modification date)	更改内容描述 (Summary of modification content)	拟制 (Signature)	批准 (Approval)
X1	2023.04.23	初版发行 (First Issue)	胡赵海 (Jerry)	朱正锐 (Jongrei)
X2	2023.05.11	修改FPC及线长	胡赵海 (Jerry)	朱正锐 (Jongrei)



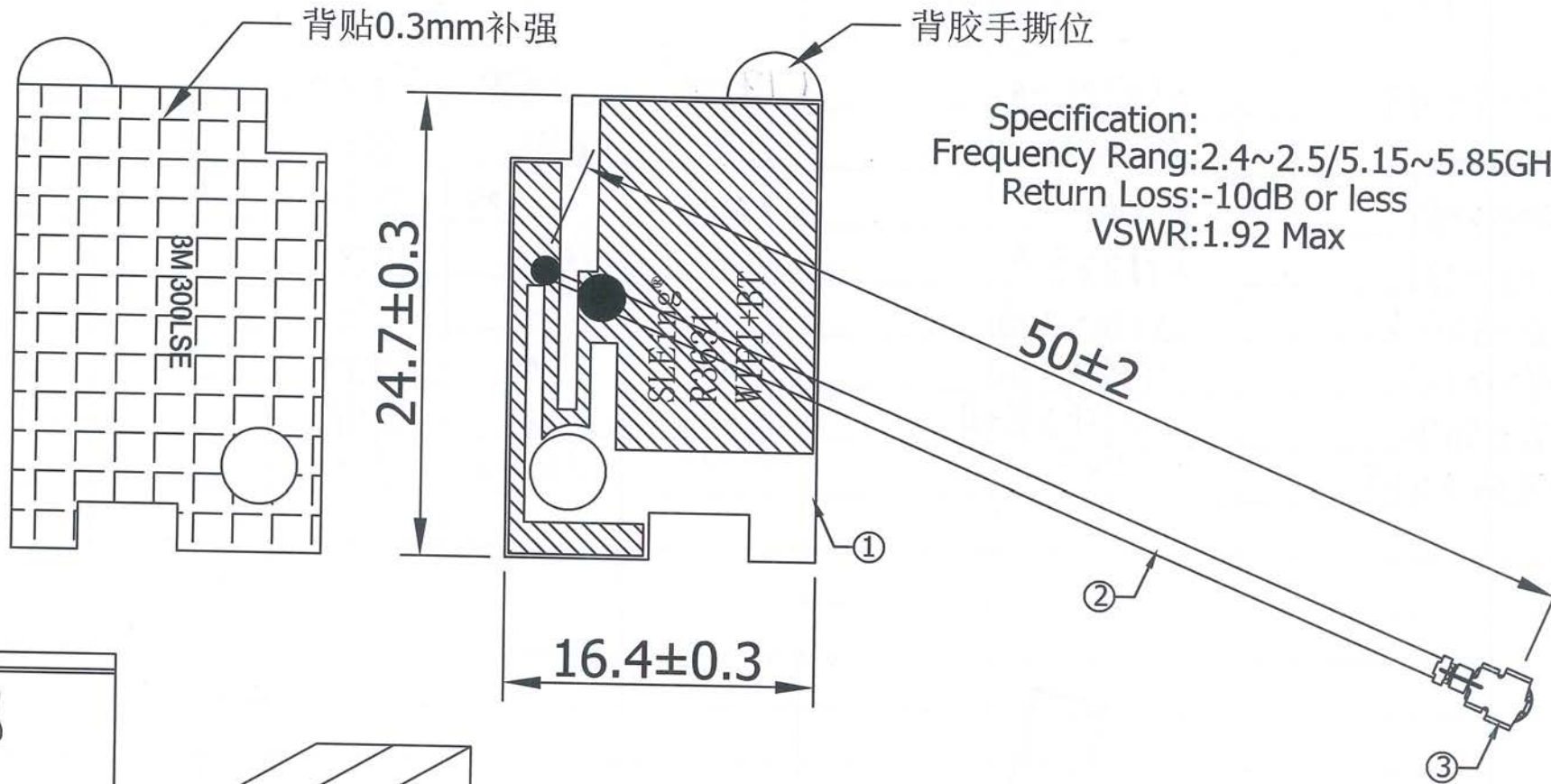
承认书项目表 (Spec Item)

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	测试设备 (Test Setup)		8
9	测试效率 (Test Efficiency)		9
10	测试功率灵敏度 (Test TRP/ TIS)		10
11	产品包装规范 (Product packaging specification)		11
12	ROHS清单 (ROHS List)		12

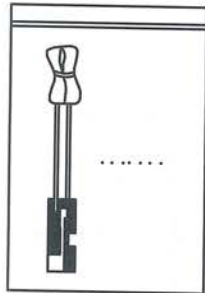
Give clear indication of:

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.

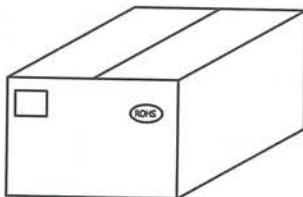
REV.	CONTENT	DATE
X1	First Sample	2023.04.23
X2	修改FPC及线长	2023.05.11



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



TOLERANCE UNLESS
OTHERWISE SPECIFIED

UNIT:mm

SHEET: 1/1

SCALE: 1/1

ANGLES ±0.5°

0.XX ±0.05

XXX. ±2.0

X. ±0.3

XX. ±0.5

XXX. ±2.0

CUSTOMER			
PART NO			
TITLE		WIFI ANTENNA	
S.L P/NO		SLEingB241080052	
SIZE	DRAWN	CHECKED	APPROVED
A4	Xiaoyang	H. Zou	Jiangyan

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 Coaxial Cable Black,50Ω		1
1	FPCB	FPC,L24.7*W16.4*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)	2 $\pm$ 0.5 dBi
Polarization	Linear, Vertical
Admitted Power	2 W
Connector	MHF
Physical Properties	
Antenna Material	FPCB
Cable Type	Φ 1.13mm Black
Operating Temp.	-40~+85 °C
Storage Temp.	-5~+30 °C

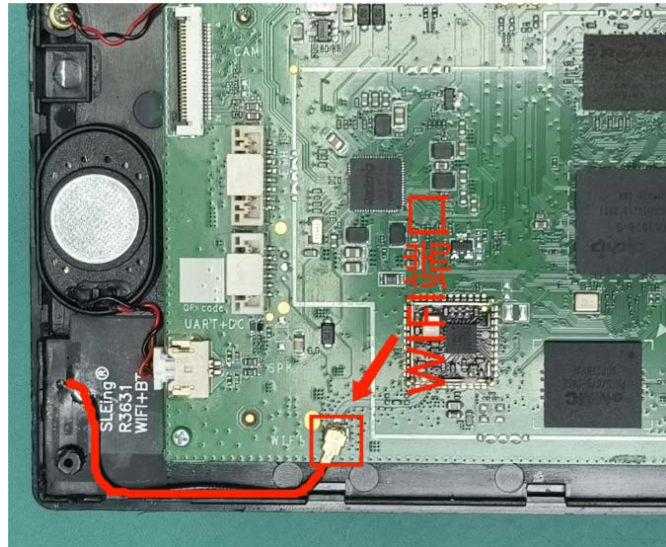
天线组装图

Antenna Profile

Device

3.如图所示，装上主板，将 WiFi 天线端子扣在 WiFi 端口上，天线走线需走在走线夹上，然后将天线端子打胶固定，以防止天线端子脱落。

图中红线为 WiFi 天线走线，天线线长 50mm，直径 1.13mm，1 代端子(黑色同轴线)。



Antenna



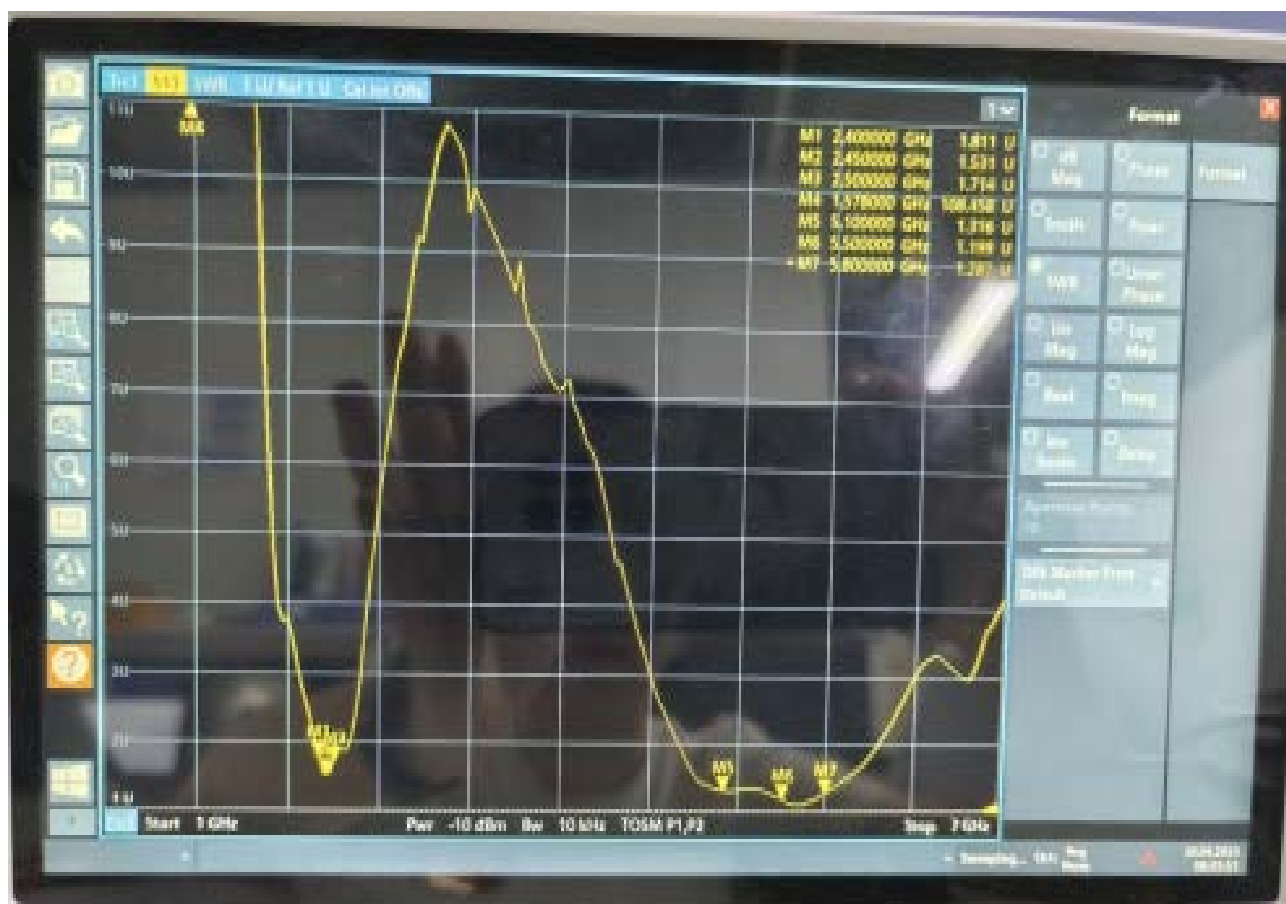
S 参数测试

S Parameter Test

Agilent E5071C Network Analyzer



WiFi 驻波 Antenna (NO.1)



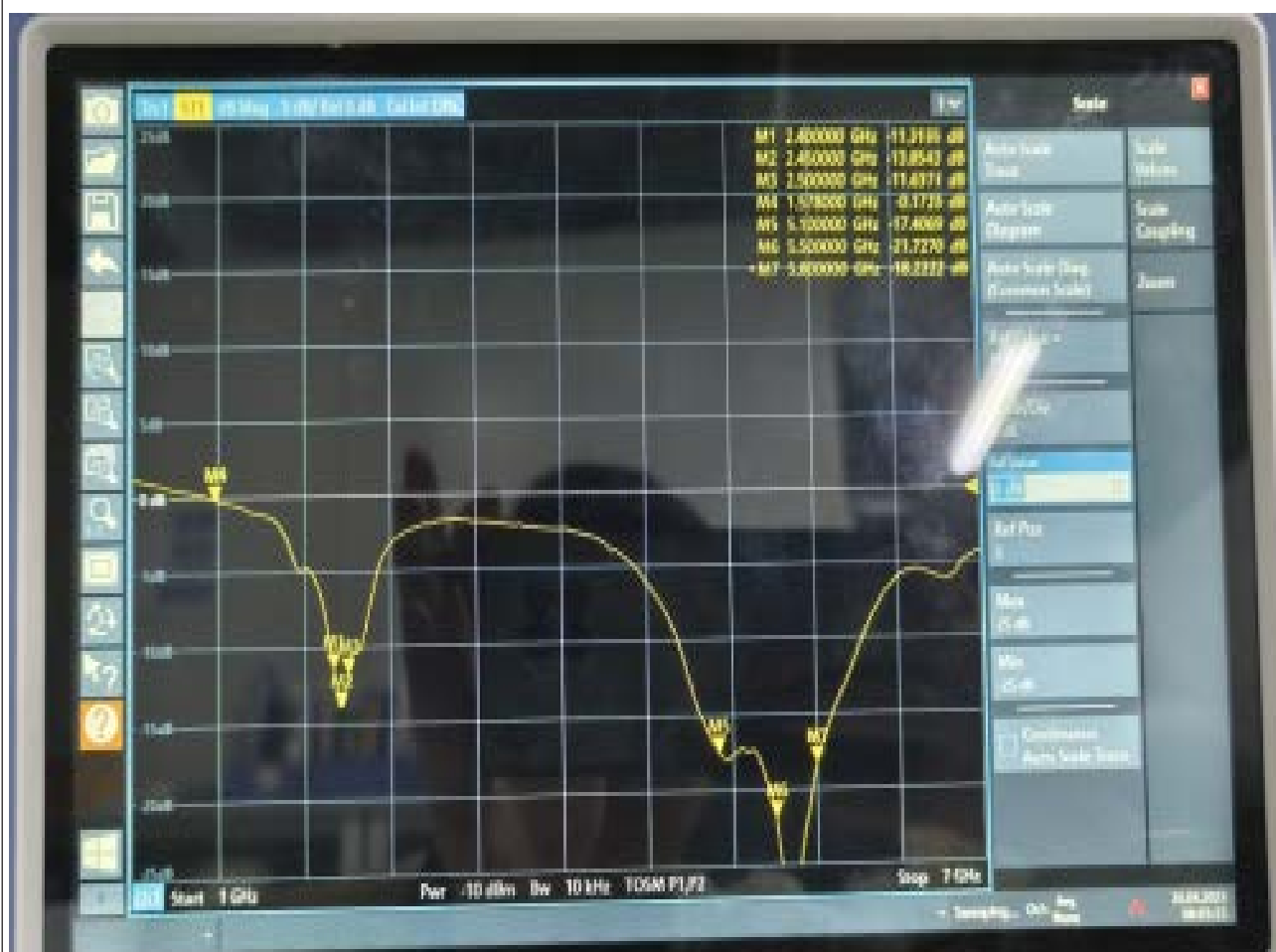
S 参数测试

S Parameter Test

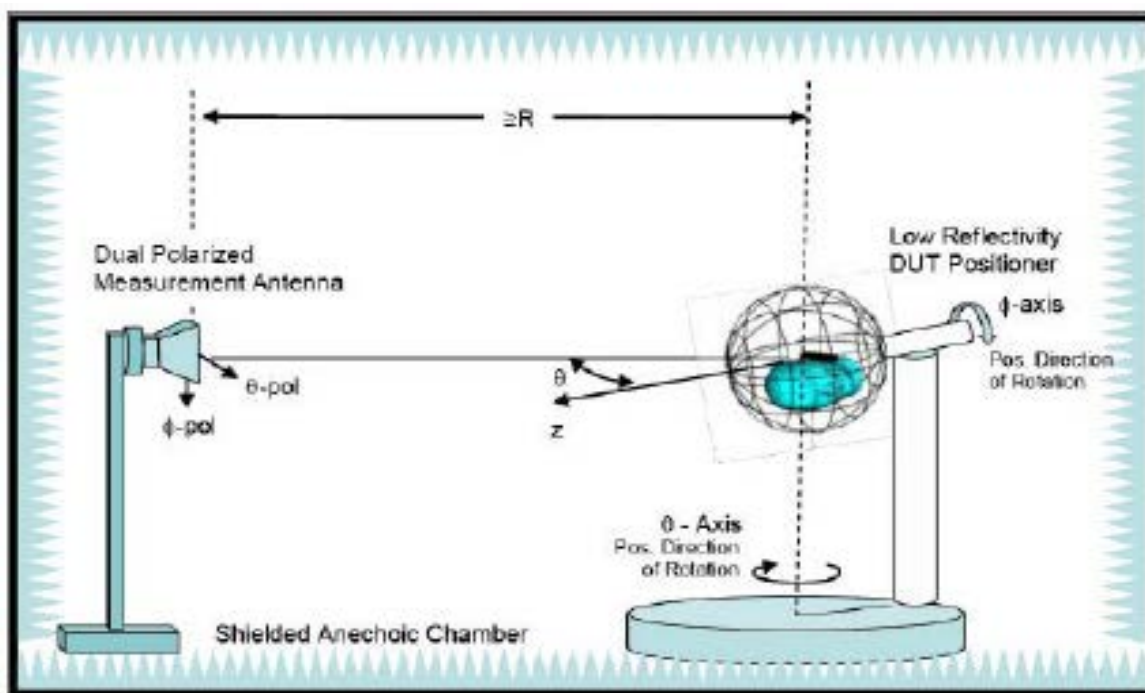
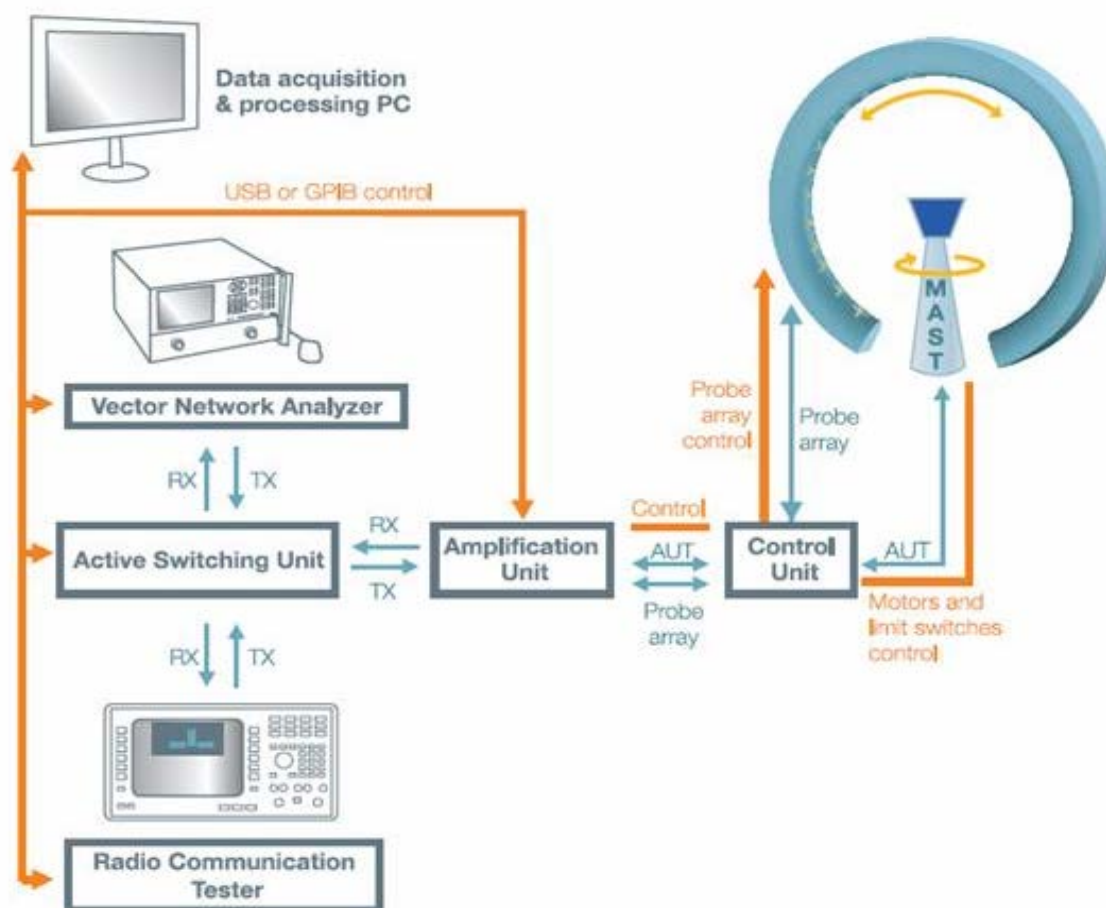
Agilent E5071C Network Analyzer



WiFi 回波损耗 Antenna (NO.1)

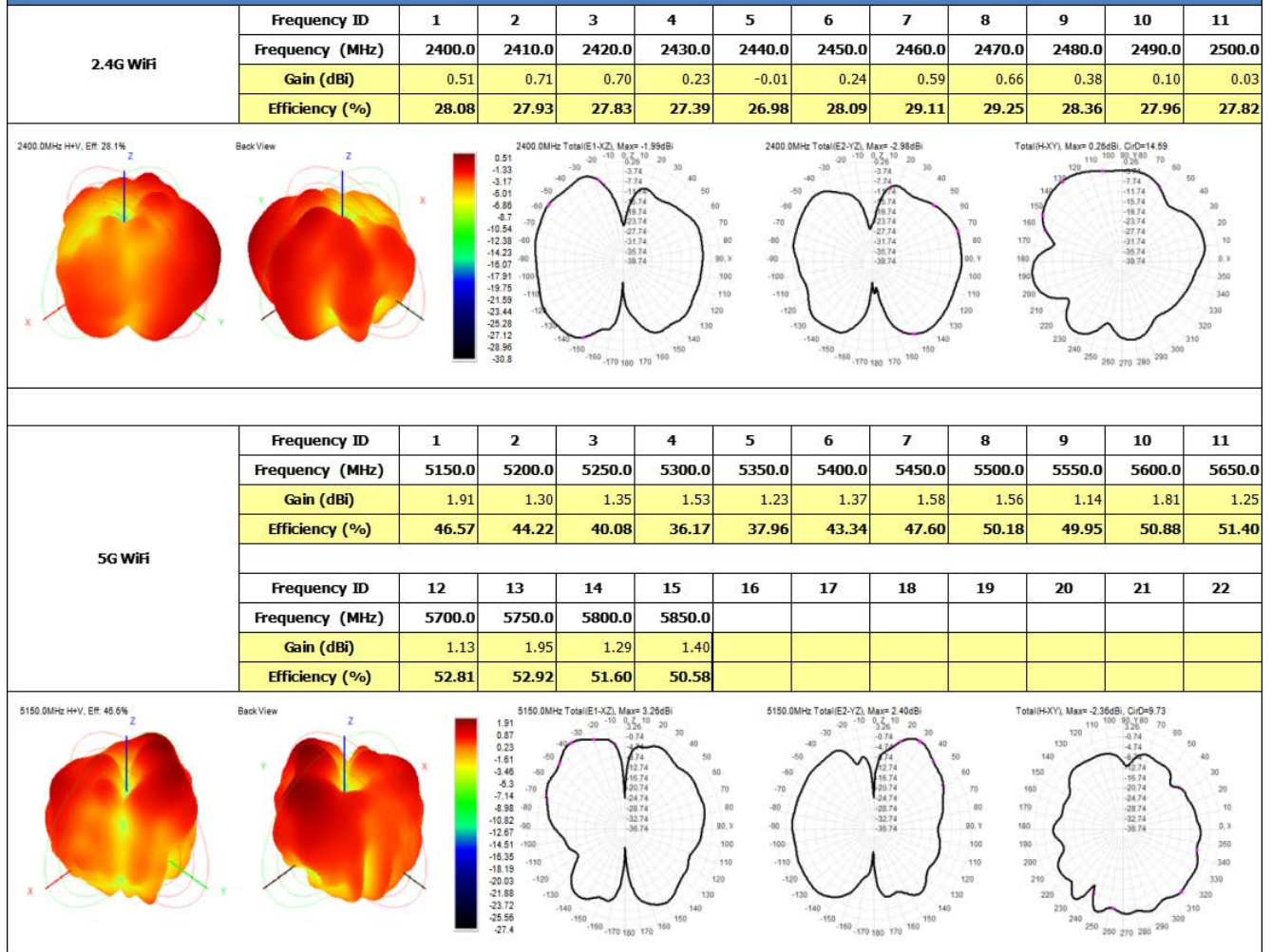


测试设备 Test Setup



测试效率

Test Efficiency

项目名称 **WIFI-MIAN** 天线无源效率测试报告



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OTA

Operating Band	Bandwidth	Free Space Requirements		Channal	Testing Results		Gap	
		TRP	TIS		TRP	TIS (LCD ON)	TRP	TIS (LCD ON)
WIFI 2.4G	11b 11Mbps	12	-76	1	10.1	-77.2	1.9	1.2
		12	-76	7	10.7	-76.1	1.3	0.1
		12	-76	13	10.2	-76.6	1.8	0.5
		12.0	-76	Avg	10.3	-76.6		

东莞市森岭智能科技有限公司

DONGGUAN SLEing INTEL-TECH.CO.,LTD

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电话：0769-89208968

传真：0769-89208969

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	基材铜箔	蔡仑格蒂	SHAEC2022460504	SGS	2022.02.21	符合	SHAEC2022460904	SGS	2022.02.21	符合
		背胶	3M	SHAEC2217569205	SGS	2023.01.04	符合	SHAEC2217569403	SGS	2023.01.04	符合
		阻焊油墨	伏力	ETR22705905	SGS	2022.08.05	符合	ETR21805831A02	SGS	2022.07.07	符合
		字符油墨	川裕	ETR22A01347M01	SGS	2022.10.17	符合	ETR22105272	SGS	2022.01.27	符合
		OSP	豪杰行	SZXECC2300005501	SGS	2023.01.09	符合	SZXECC2300005503	SGS	2023.01.09	符合
	CABLE	补强	富邦电子	A2220120187101010E	CTI	2022.04.01	符合	A2220120187103001E	CTI	2022.04.12	符合
		金属	海联通	A2220074535101002E	CTI	2022.05.03	符合	A2220074535102002E	CTI	2022.05.10	符合
				A2220074535101001E	CTI	2022.05.10	符合	A2220074535102001E	CTI	2022.05.10	符合
	端子	铜	紫金铜业	CANEC2209440608	SGS	2022.05.19	符合	CANEC2209440612	SGS	2022.05.19	符合
		塑胶	新光	ETR22800770A01	SGS	2022.08.18	符合				