



东莞市森岭智能科技有限公司

DONGGUAN CITY SLEing INTEL-TECH CO., LTD

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

2.4-2.5GHz

RF Antenna 3dBi (RG178+SMA)

单重:

weight

供 方 料 号 :

SUP PART NO

SLEingA100020108-F46

日 期 :

DATE

2023.02.27

厂 商 核 准 :

SUP APPROVED

核准 APPROVED	审核 CHECKED	品保审核 QA CHECKED	承办 DESIGNED
<i>Jerry</i>	<i>Jerry</i>	<i>LSY</i>	<i>Jerry</i>

客 户 核 准 :

CUS APPROVED

核准 APPROVED	审核 CHECKED	品保审核 QA CHECKED	承办 DESIGNED

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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	2023.02.27	初版发行 (First Issue)	胡赵海 (Jerry)	朱正锐 (Jongrei)

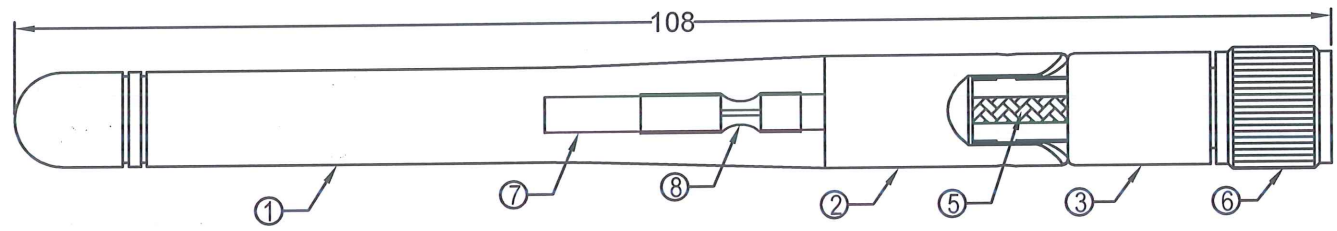
承认书项目表 (Spec Item)

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	S参数测试 (S Parameter Test)		6
7	测试设备 (Test Setup)		7
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9	测试效率(Test Efficiency)		9
10	产品包装规范 (Product packaging specification)		10
11	ROHS清单(ROHS List)		11

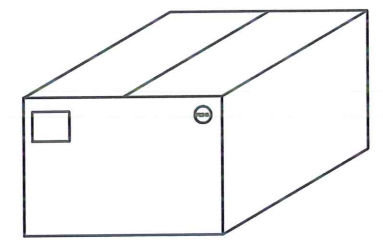
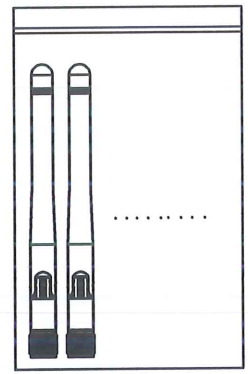
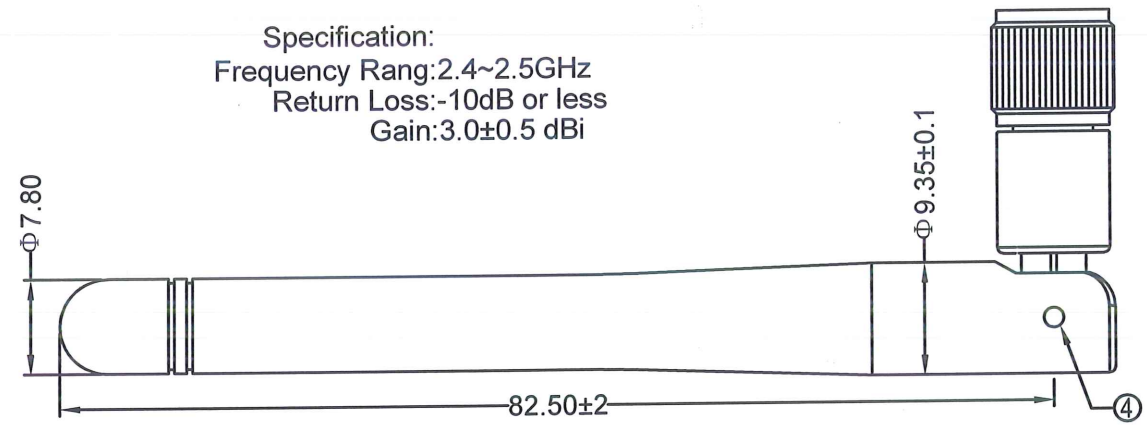
Give clear indication of:

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
A	Frist Issue	2023.02.27



Specification:
Frequency Rang:2.4~2.5GHz
Return Loss:-10dB or less
Gain:3.0±0.5 dBi



外箱须贴ROHS标签与物料标签各1PCS

8	H.S Tube	Heat Shrink Tube,Black,Ø4.0*L20MM		1
7	Copper Tube	Ø4.4*Ø1.5*22mm,Brass		1
6	Connector	SMA Straight Plug(公针)for RG-178 Cable		1
5	Cable	RG-178,Transparency Brown,50Ω		1
4	Rivet	POM,Color:Black		1
3	Bottom Base	PC+PBT,Color:Black		1
2	Upper Base	PC,Color:Black		1
1	Antenna Cap	TPE,Color:Black		1
NO	PART NAME	DESCRIPTION	REMARK	Q'TY

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	ANGLES ±0.5°	X. ±0.2
SHEET: 1/1	X.XX ±0.05	XX. ±0.5
SCALE: 1/1		XXX. ±1.0

CUSTOMER			
PART NO			
TITLE		RF ANTENNA CABLE ASSEMBLY	
S.H P/NO		SLEingA100020108-F46	
SIZE	DRAWN	CHECKED	APPROVED
A4	Terry	Terry	Jong Ro?





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DONGGUAN CITY SLEing INTEL-TECH CO., LTD

电性测试报告

Test Reports

Electrical Properties	
Frequency	2.4-2.5GHz
Impedance	50 Ohm Nominal
V.S.W.R	≤1.92
Return Loss	10dB Max
Radiation	Omni-directional
Gain (Peak)	3.25 dBi
Polarization	Linear, Vertical
Admitted Power	2 W
Connector	MHF
Physical Properties	
Antenna Material	TPE/PC+PBT
Cable Type	RG178
Operating Temp	-20℃-75℃
Storage Temp.	-20℃-75℃

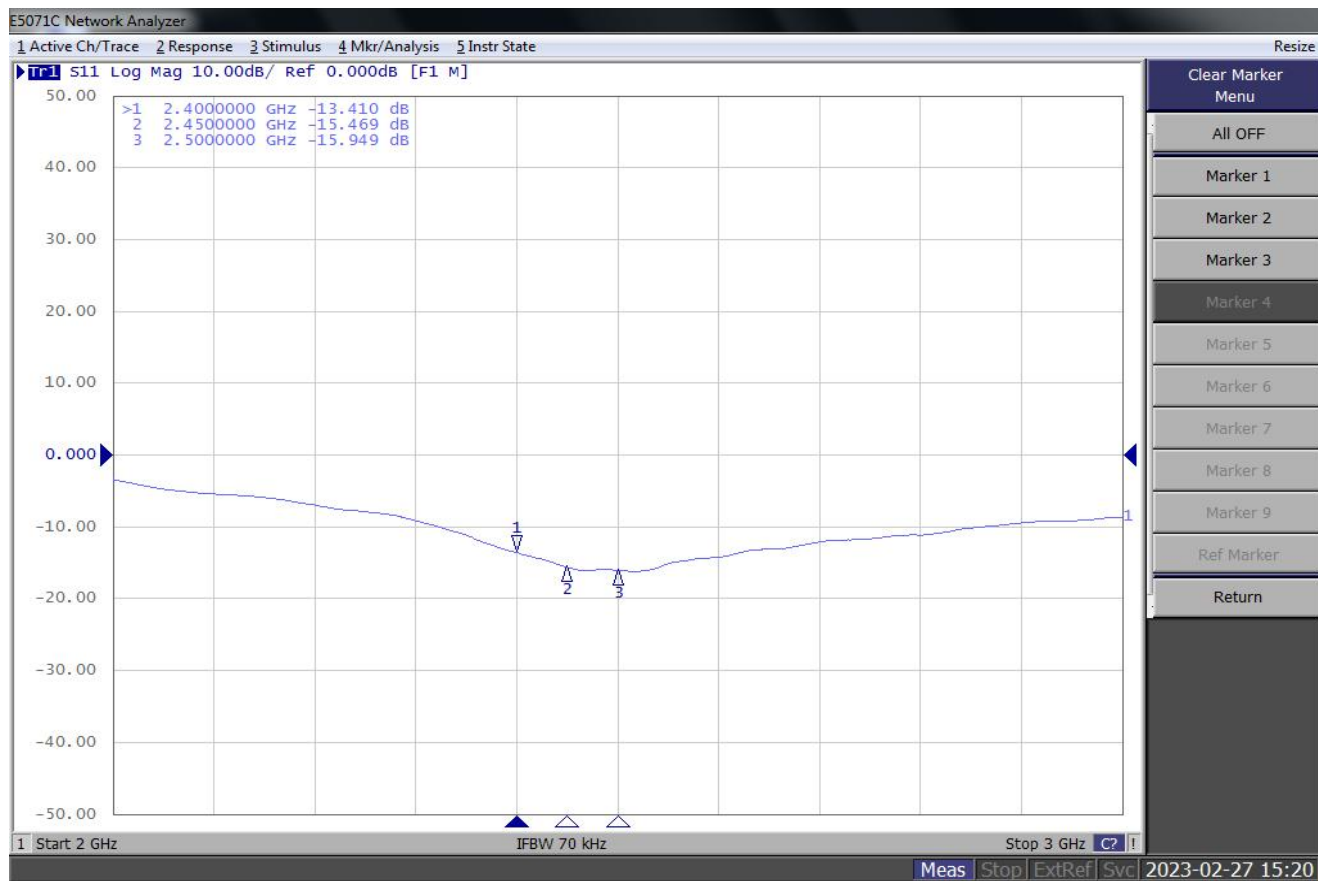
S参数测试

S Parameter Test

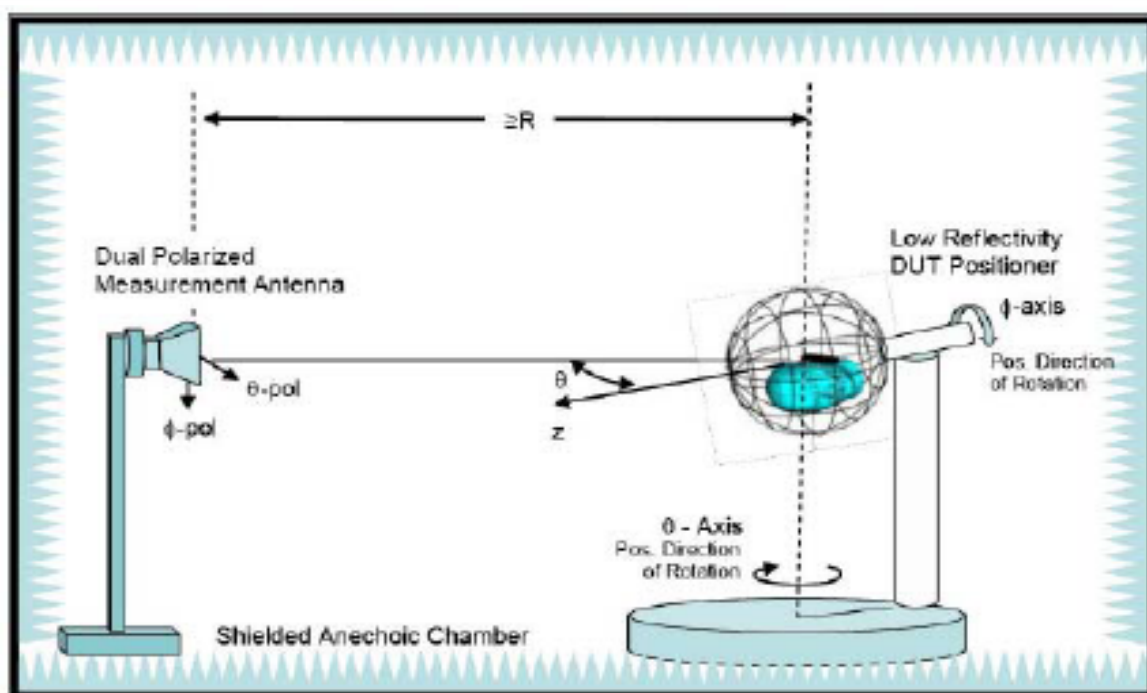
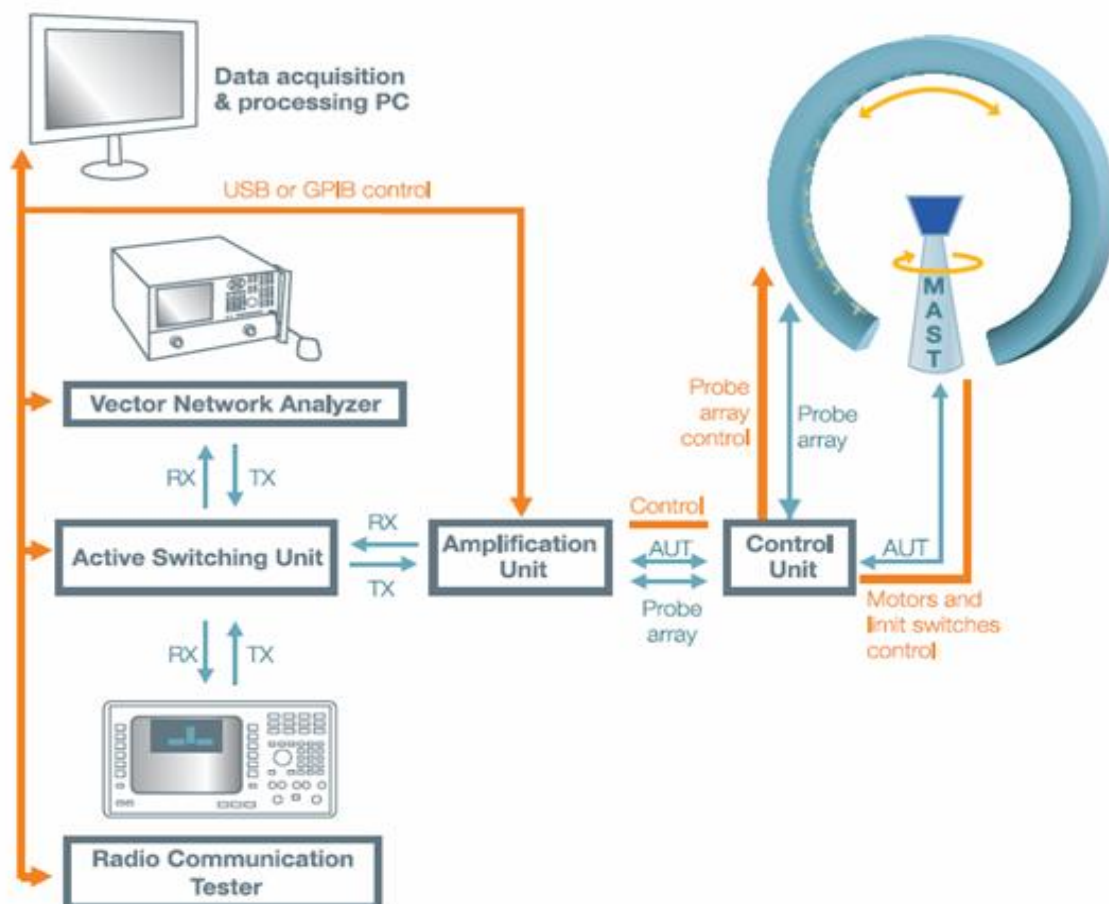
Agilent E5071C Network Analyzer



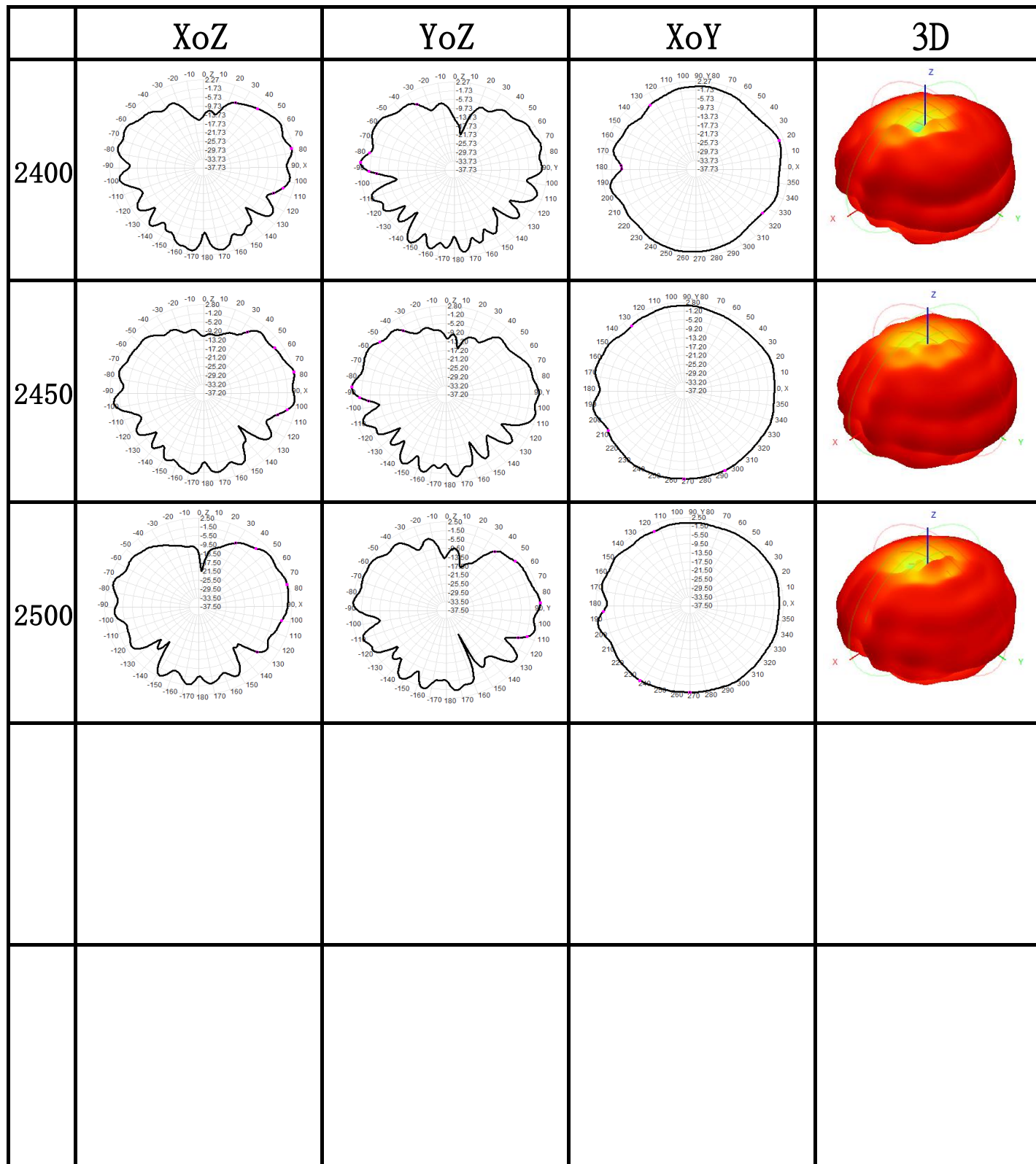
RF Antenna(Return Loss)



测试设备 Test Setup



方向图 Patten





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测试效率

Test Efficiency

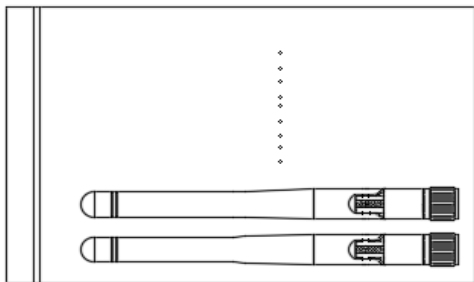
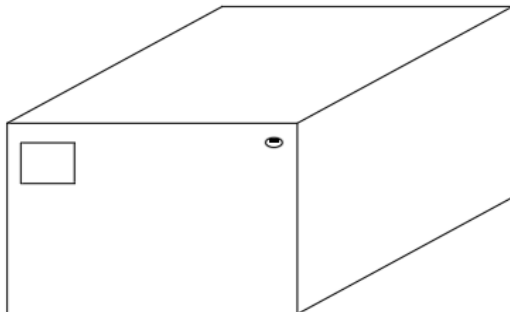
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	2.80	2.79	2.87	2.95	3.09	3.04	3.01	3.24	3.25	3.16	3.05
Efficiency (%)	68.90	69.98	70.31	70.37	70.15	70.76	70.65	71.25	71.75	71.47	71.14

产品包装规范

Product packaging specification

日期(Date) 2023. 02. 27

page: 1 of 1

成品名称 Name of finished product	RF Antenna	客户 customer			
成品料号 Finished product number	SLEingA100020108-F46	版本 REV.	X1		
 单PCS天线 (2) 50PCS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10-20包共500-1000PCS 					
(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℃-+30℃，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）

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
	上下盖	ABS	台化	ETR22800801	SGS	2022.04.10	符合	/	/	/	/
	上固	PC	三菱	SZXML2200130001	SGS	2022.01.22	符合	三菱公司REACH声明	/	/	符合
	下固	PC+PBT	乐金化学	SZSEC2103950201	SGC	2021.11.28	符合	CANEC2203190502	SGS	2022.03.10	符合
	铆钉	POM	宝理塑胶	SHAEC2127258003	SGS	2021.10.21	符合	/	/	/	/
	PCB	基材铜箔	金安国际	NGBML2221844502	SGS	2022.10.24	符合	CANEC2221844506	SGS	2022.10.24	符合
		阻焊油墨	蓝邦	CANEC2215361304	SGS	2022.07.21	符合	CANEC2211341202	SGS	2022.06.07	符合
		字符油墨	艾肯	A2220090449101001E	CTI	2022.03.10	符合	A2220083386101001E	CTI	2022.03.08	符合
		OSP	永晟达	CANEC2209489302	SGS	2022.05.18	符合	CANEC2218328106	SGS	2022.09.01	符合
		CABLE	金属	海联通	A2220074535101002E	CTI	2022.03.03	符合	A2220074535102002E	CTI	2022.03.10
	非金属			A2220074535101001E	CTI	2022.03.10	符合	A2220074535102001E	CTI	2022.03.10	符合
	SMA	PIN针铜壳	南源铜材	CANEC2200189312	SGS	2022.01.12	符合	CANEC2200189306	SGS	2022.01.12	符合
		铁氟龙	盛科达	SHAEC22000767002	SGS	2022.08.23	符合	SHAEC22000767004	SGS	2022.08.23	符合
		锌合金	常森新材	SZXML2200496902	SGS	2022.03.09	符合				