



广东森领通信科技有限公司

GUANGDONG SLEING COMM-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

2.4-2.5/5.15-5.85GHz

WIFI Antenna L=65mm(Ø1.13+MHF)

单重:

weight

供 方 料 号 :

SUP PART NO

SLEingB257320065

日 期 :

DATE

2026.03.31

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
13026	2026.03.31	2026.03.31	2026.03.31	2026.03.31

客 户 核 准 :

CUS APPROVED

核准 APPROVED	审核 CHECKED	品保审核 QA CHECKED	承办 DESIGNED

广东森领通信科技有限公司

GUANGDONG SLEING COMM-TECH CO., LTD

广东省东莞市松山湖园区工业东路24号6栋402室

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正本由承办单位保存



广东森领通信科技有限公司

GUANGDONG SLEING COMM-TECH CO., LTD

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	2026.03.31	初版发行 (First Issue)	胡赵海 (Jerry)	朱正锐 (Jongrei)



承认书项目表 (Spec Item)

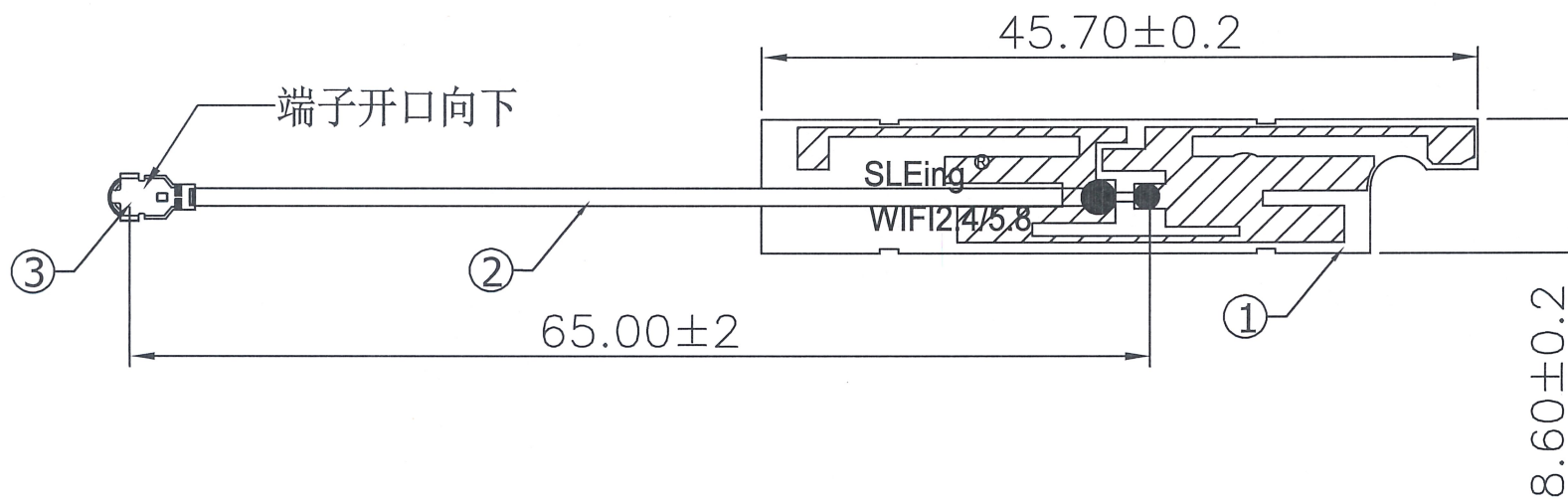
序号 (NO.)	项目 (Project)	备注 (Remark)	页码 (Page)
1	承认书封面 (Spec Cover)		1
2	变更记录 (MODIFICATION RECORD SHEET)		2
3	承认书项目表 (Spec Item)		3
4	工程成品图 (Drawing)		4
5	电性测试报告 (Test Reports)		5
6	天线组装图 (Antenna assembly diagram)		6
7	S参数测试 (S Parameter Test)		7-8
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10	方向图 (Pattern)		11-14
11	产品包装规范 (Product packaging specification)		15
12	ROHS清单 (ROHS List)		16

Give clear indication of:

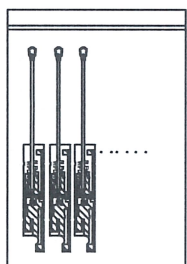
1. The contents of the acknowledgement shall be arranged in order according to the items in the check sheet.
2. The number of copies of the acceptance letter shall be printed according to the customer's requirements, and the SGS report shall be stamped with the engineering seal.
3. All materials shall 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

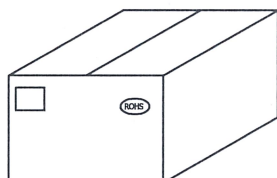
REV.	CONTENT	DATE
X1	First Sample	2026.03.31



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



Packing:100pcs/bag 外箱须贴ROHS标签与物料标签各1PCS



SLEing® 森领 广东森领通信科技有限公司 GUANGDONG SLEING COMM-TECH CO., LTD			CUSTOMER	
			PART NO	
TOLERANCE UNLESS OTHERWISE SPECIFIED			TITLE	
			WIFI Antenna	
SIZE			S.L P/NO	
			SLEingB257320065	
DRAWN			CHECKED	
APPROVED			APPROVED	

3	Connector	MHF Plug for Φ1.13 Cable	第一代端子	1
2	Cable	Φ1.13mm Coaxial Cable Black,50Ω		1
1	FPC	L45.7*W8.6*T0.2mm,Color:Black	300LSE Adhesive	1
NO	PART NAME	DESCRIPTION	REMARK	Q'TY



广东森领通信科技有限公司

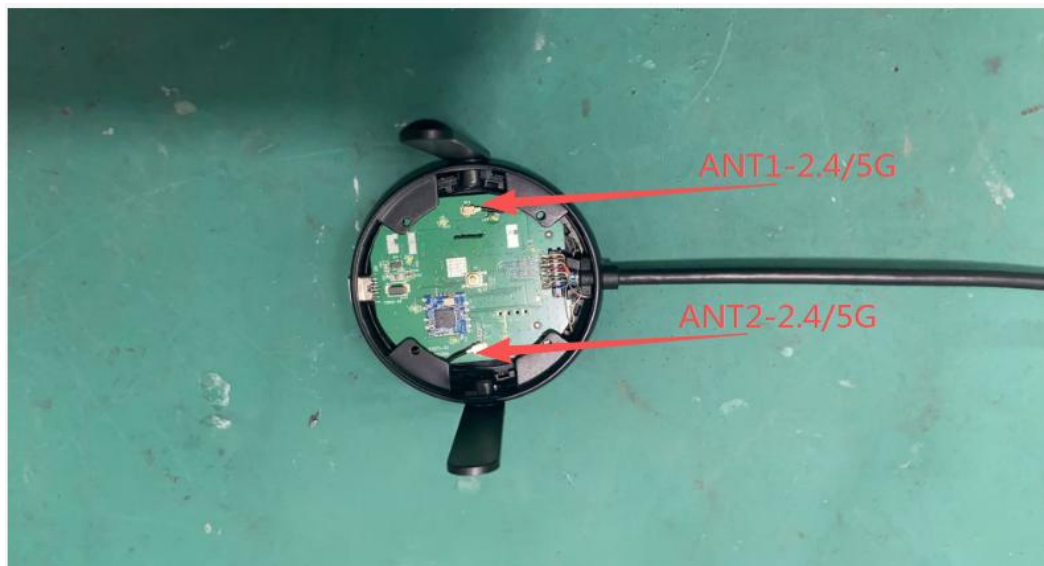
GUANGDONG SLEING COMM-TECH CO., LTD

电性测试报告

Test Reports

Electrical Properties	
Frequency	2.4-2.5/5.15-5.85 MHz(整机测试)
Impedance	50 Ohm Nominal
V.S.W.R	≤ 1.92
Return Loss	-10dB Max
Radiation	Omni-directional
Gain(Peak)	2.4G:3.83 dBi/ 5.8G:3.98 dBi
Polarization	Linear, Vertical
Admitted Power	2 W
Connector	MHF
Physical Properties	
Antenna Material	FPC
Cable Type	$\Phi 1.13\text{mm}$ Black
Operating Temp	-40°C-85°C
Storage Temp.	-40°C-85°C

Device



Antenna



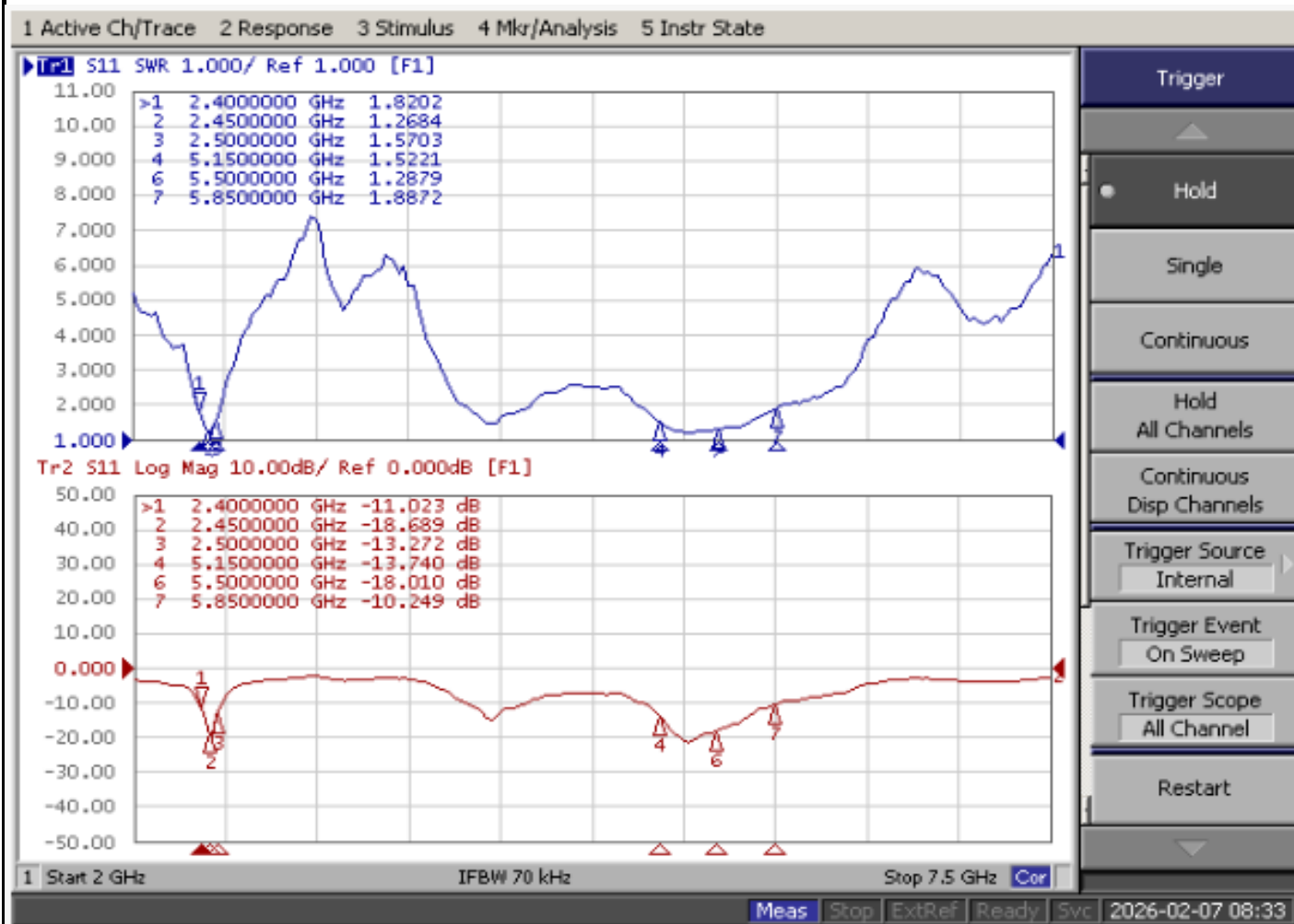
S参数测试

S Parameter Test

Agilent E5071C Network Analyzer



RF Antenna(VSWR/Return Loss) ANT-1



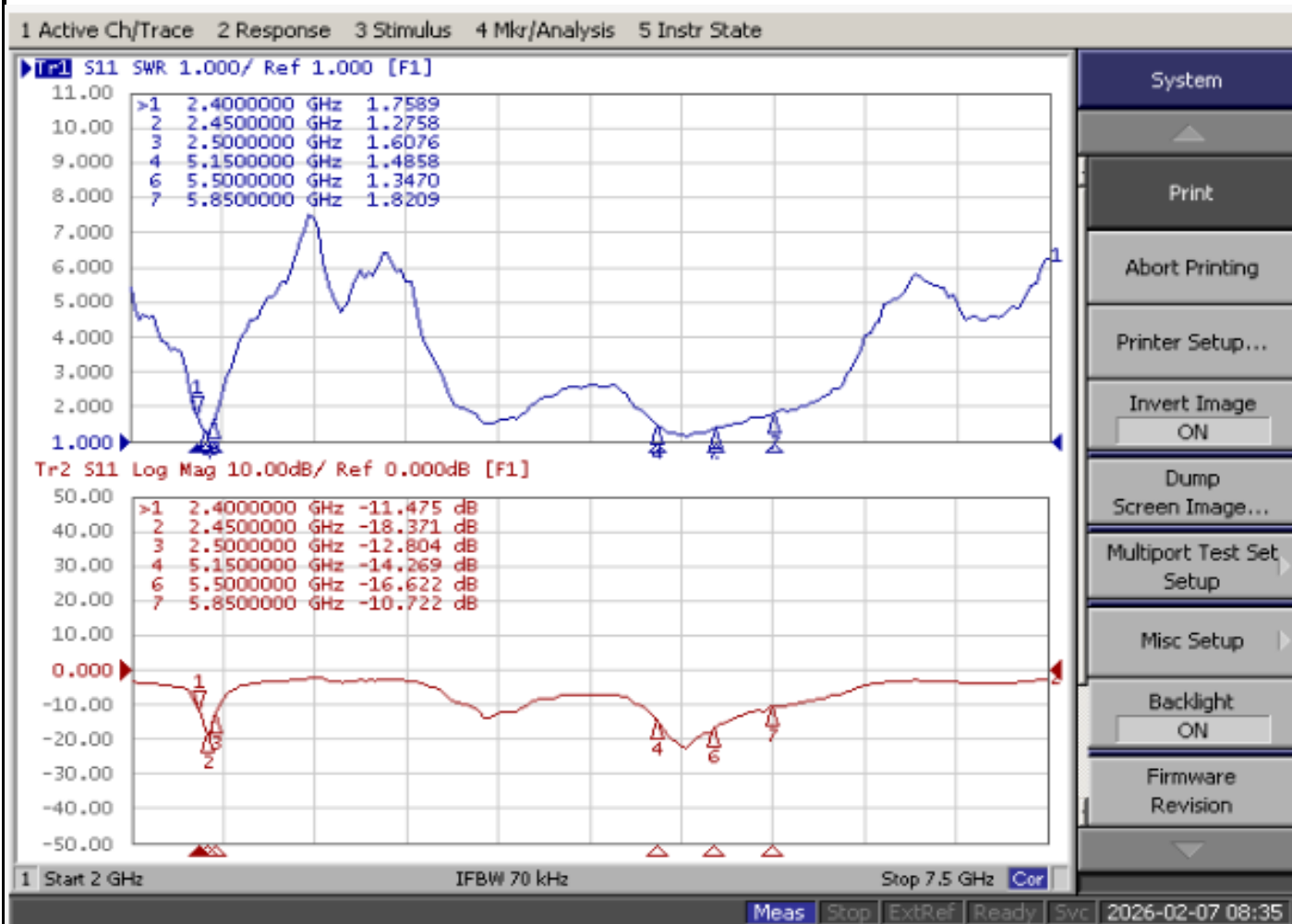
S参数测试

S Parameter Test

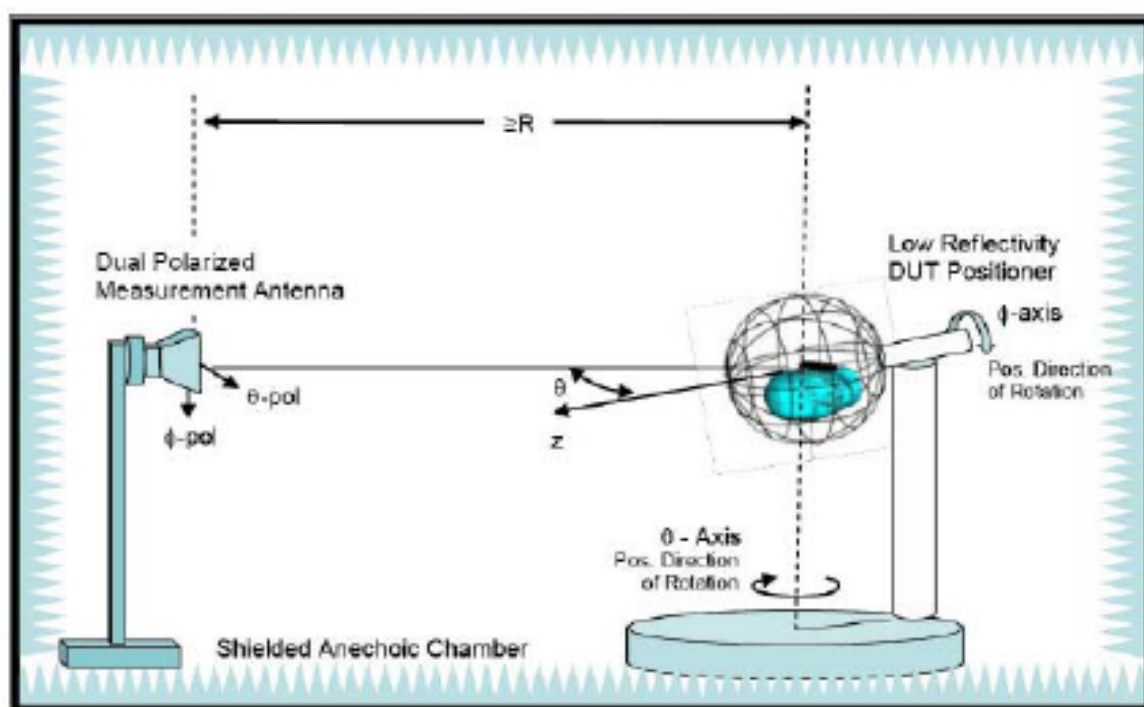
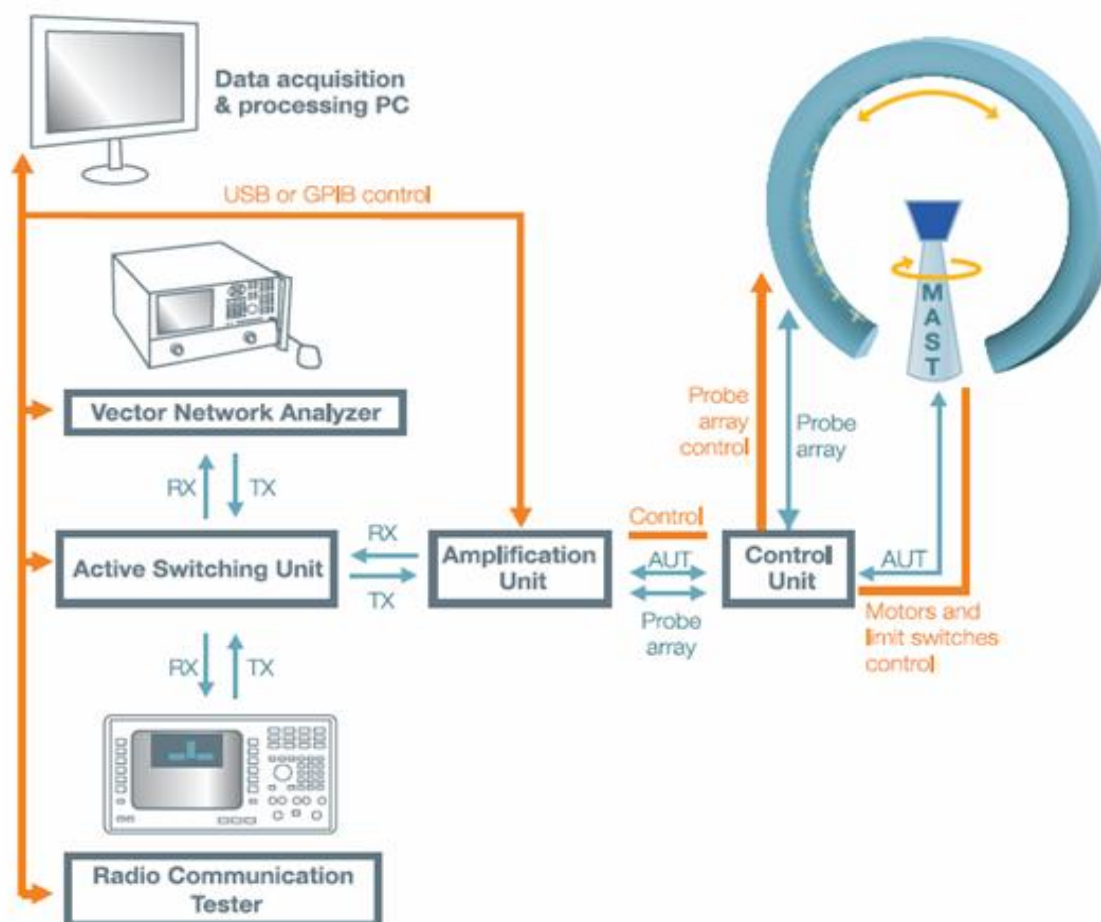
Agilent E5071C Network Analyzer



RF Antenna(VSWR/Return Loss) ANT-2



测试设备 Test Setup



测试效率

Test Efficiency

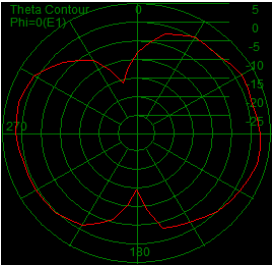
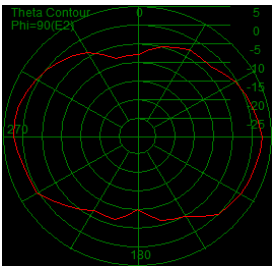
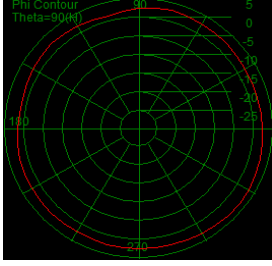
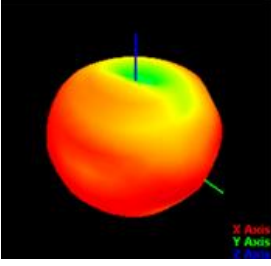
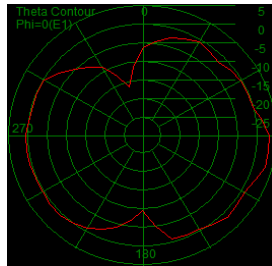
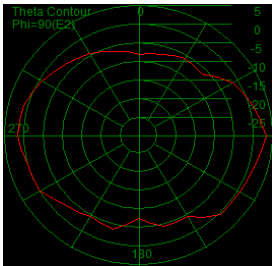
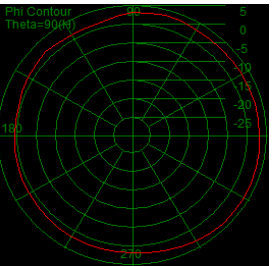
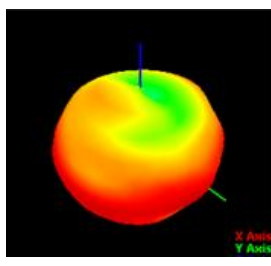
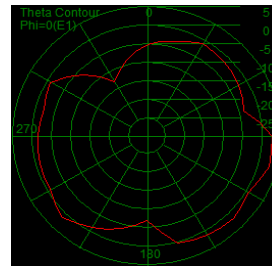
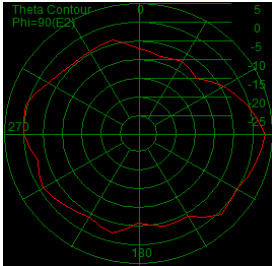
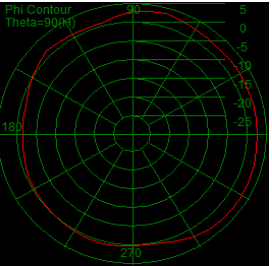
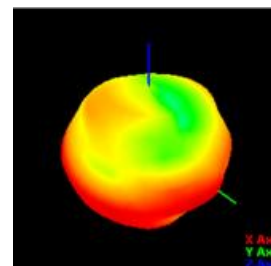
ANT-1

Test Point ID	Freq. (MHz)	Gain (dBi)	Efficiency (%)
<u>1</u>	2400.0	3.11	72.7%
<u>2</u>	2410.0	3.20	71.9%
<u>3</u>	2420.0	3.21	69.5%
<u>4</u>	2430.0	3.58	70.9%
<u>5</u>	2440.0	3.35	68.6%
<u>6</u>	2450.0	3.46	69.0%
<u>7</u>	2460.0	3.69	67.8%
<u>8</u>	2470.0	3.72	66.3%
<u>9</u>	2480.0	3.83	65.6%
<u>10</u>	2490.0	3.68	63.1%
<u>11</u>	2500.0	3.57	60.9%
<u>12</u>	5100.0	3.69	70.5%
<u>13</u>	5150.0	3.82	70.0%
<u>14</u>	5200.0	3.98	71.5%
<u>15</u>	5250.0	3.67	66.1%
<u>16</u>	5300.0	3.74	67.7%
<u>17</u>	5350.0	3.46	61.0%
<u>18</u>	5400.0	3.54	64.5%
<u>19</u>	5450.0	3.56	68.5%
<u>20</u>	5500.0	3.77	68.9%
<u>21</u>	5550.0	3.49	63.4%
<u>22</u>	5600.0	3.54	65.5%
<u>23</u>	5650.0	3.76	66.8%
<u>24</u>	5700.0	3.62	67.7%
<u>25</u>	5750.0	3.87	61.0%
<u>26</u>	5800.0	3.30	62.5%
<u>27</u>	5850.0	3.62	60.6%
<u>28</u>	--	--	--

ANT-2

Test Point ID	Freq. (MHz)	Gain (dBi)	Efficiency (%)
<u>1</u>	2400.0	3.18	67.6%
<u>2</u>	2410.0	2.89	68.8%
<u>3</u>	2420.0	3.01	69.5%
<u>4</u>	2430.0	3.21	70.7%
<u>5</u>	2440.0	2.96	72.3%
<u>6</u>	2450.0	2.79	70.9%
<u>7</u>	2460.0	2.90	72.7%
<u>8</u>	2470.0	2.92	71.3%
<u>9</u>	2480.0	3.16	69.7%
<u>10</u>	2490.0	2.93	66.2%
<u>11</u>	2500.0	2.81	64.6%
<u>12</u>	5100.0	3.65	67.6%
<u>13</u>	5150.0	3.16	70.4%
<u>14</u>	5200.0	3.79	72.7%
<u>15</u>	5250.0	3.19	66.0%
<u>16</u>	5300.0	3.30	70.5%
<u>17</u>	5350.0	3.07	69.0%
<u>18</u>	5400.0	2.98	67.9%
<u>19</u>	5450.0	3.63	72.1%
<u>20</u>	5500.0	3.34	71.4%
<u>21</u>	5550.0	2.53	71.1%
<u>22</u>	5600.0	3.54	70.9%
<u>23</u>	5650.0	3.48	69.7%
<u>24</u>	5700.0	3.86	68.9%
<u>25</u>	5750.0	3.87	71.5%
<u>26</u>	5800.0	3.66	72.3%
<u>27</u>	5850.0	3.02	68.4%
<u>28</u>	--	--	--

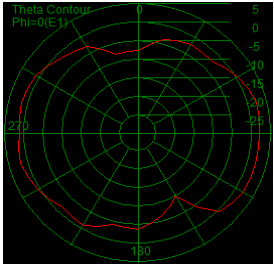
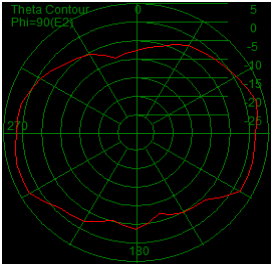
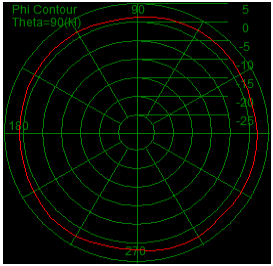
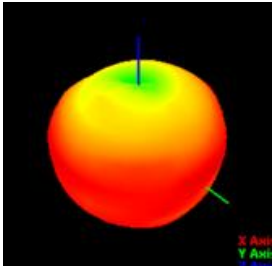
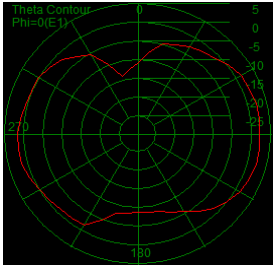
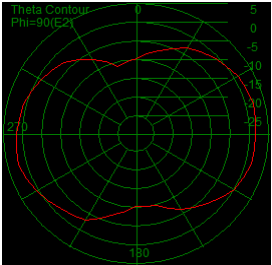
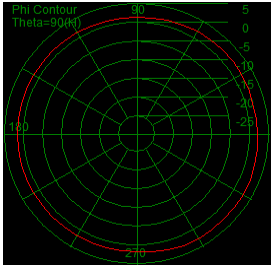
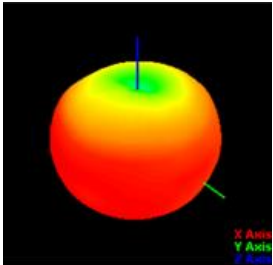
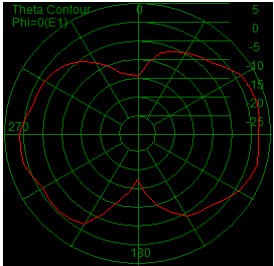
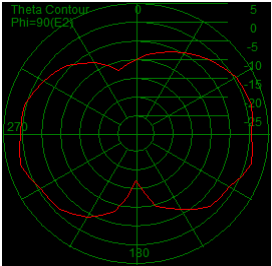
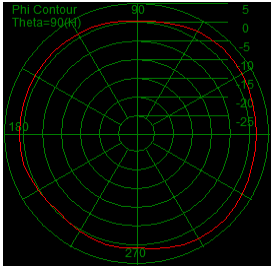
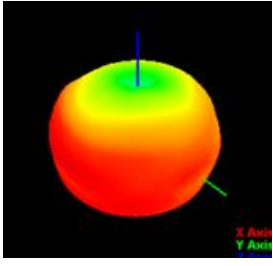
方向图 ANT-1
Pattern

	XoZ	YoZ	XoY	3D
2400				
2450				
2500				

方向图 ANT-1 Pattern

	XoZ	YoZ	XoY	3D
5150				
5500				
5850				

方向图 ANT-2
Pattern

	XoZ	YoZ	XoY	3D
2400				
2450				
2500				



方向图 ANT-2
Pattern

	XoZ	YoZ	XoY	3D
5150				
5500				
5850				

产品包装规范

Product packaging specification

日期/Date: 2026.03.31

page:

1 of 1

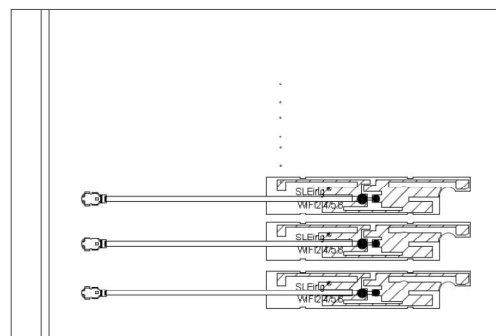
成品名称 Name of finished product	WIFI Antenna	客户 customer	
成品料号 Finished product number	SLEingB257320065	版本 REV.	X1



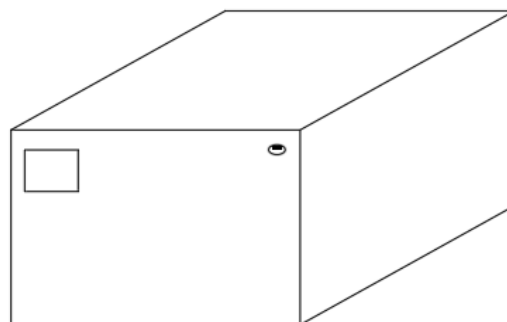
单PCS天线



(2) (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: 以实际数量为准



(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°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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广东森领通信科技有限公司

GUANGDONG SLEING COMM-TECH CO., LTD

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	
	PCF	基材铜箔	慕伦格蒂	SH4EC25031840902	SGS	2025.12.08	符合	SH4EC25031840904	SGS	2025.12.08	符合	
		背胶	3M	SH4EC25032493501	SGS	2025.12.12	符合	SH4EC25032476201	SGS	2025.12.15	符合	
		阻焊油墨	优力	ETR25501383	SGS	2025.05.20	符合	A2250839695101002E	CTI	2025.11.12	符合	
		字符油墨	川裕	ETR25901252M01	SGS	2025.09.11	符合	ETR25C05736M01	SGS	2025.12.31	符合	
	OSP	宝鑫化工	SZVEC25003651102	SGS	2025.10.09	符合	SZVEC25003651104	SGS	2025.10.09	符合		
	补强	富邦电子	A2260055847101006E	CTI	2026.02.04	符合	A2260055847102003E	CTI	2026.02.06	符合		
	CABLE	护套/绝缘	海联通	NGBPC25007471212	SGS	2025.12.23	符合	NGBPC25007471118	SGS	2025.12.23	符合	
		内外导体		CANEC25000298402	SGS	2025.12.10	符合	CANEC25000298406	SGS	2025.12.10	符合	
		端子	铜	紫金铜业	CANEC24029407216	SGS	2025.07.08	符合	CANEC25004945102	SGS	2025.07.20	符合
			镀金	翊腾电子	A2250437743101001E	CTI	2025.06.27	符合	A2250409846101001E	CTI	2025.11.18	符合
塑胶 PBT			新光	ETR25703518	SGS	2025.07.28	符合	REACH符合声明			符合	