SLEing®

东莞市森岭智能科技有限公司

DONGGUAN 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 2.4-2.5/5.15-5.85/7.15GHz Dipole 3dBi Antenna (RG178+SMA)

单重：
weight

供方料号：
SUP PART NO SLEingA100080168-C07

日 期：
DATE 2023.08.31

东莞市森岭智能科技有限公司 2023.08.31 工程部

厂商核准：
SUP APPROVED

核准 APPROVED	审核 CHECKED	品保审核 QA CHECKED	承办 DESIGNED
Jackey 2023-8-31	SUN	LSY	Jerry

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

东莞市森岭智能科技有限公司

DONGGUAN SLEing INTEL-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	2023.08.31	初版发行（First Issue）	胡赵海（Jerry）	周琨(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
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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.

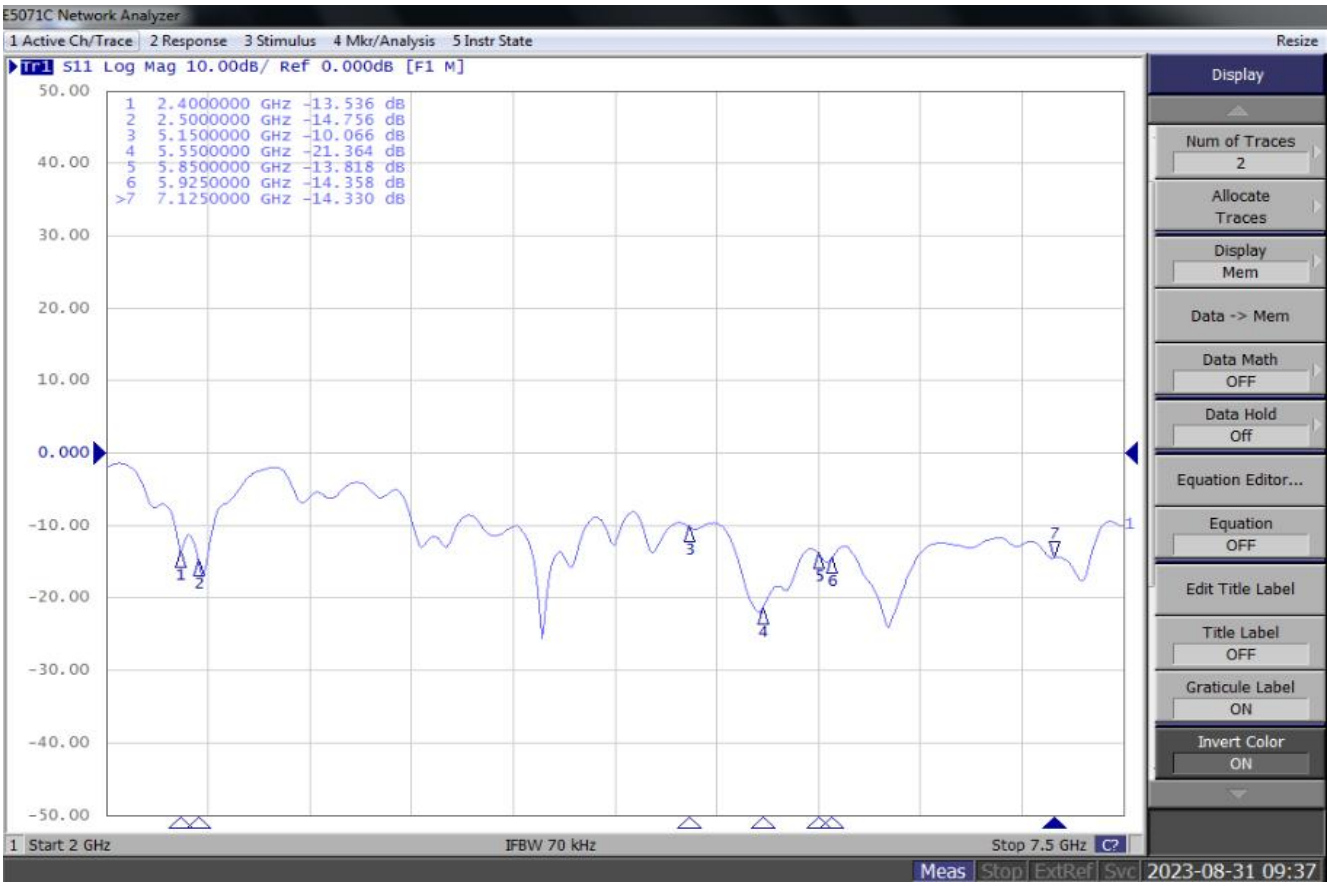
电性测试报告
Test Reports

Electrical Properties	
Frequency	2.4-2.5/5.15-5.85/7.15GHz
Impedance	50 Ohm Nominal
V.S.W.R	≤1.92
Return Loss	-10dB Max
Radiation	Omni-directional
Gain (Peak)	2.4 G:3.57dBi/5.8 G:3.64dBi/7.15G:3.99dBi
Polarization	Linear, Vertical
Admitted Power	2 W
Connector	SMA
Physical Properties	
Antenna Material	ABS/PC+PBT
Cable Type	RG178
Operating Temp	-30℃-75℃
Storage Temp.	-30℃-75℃

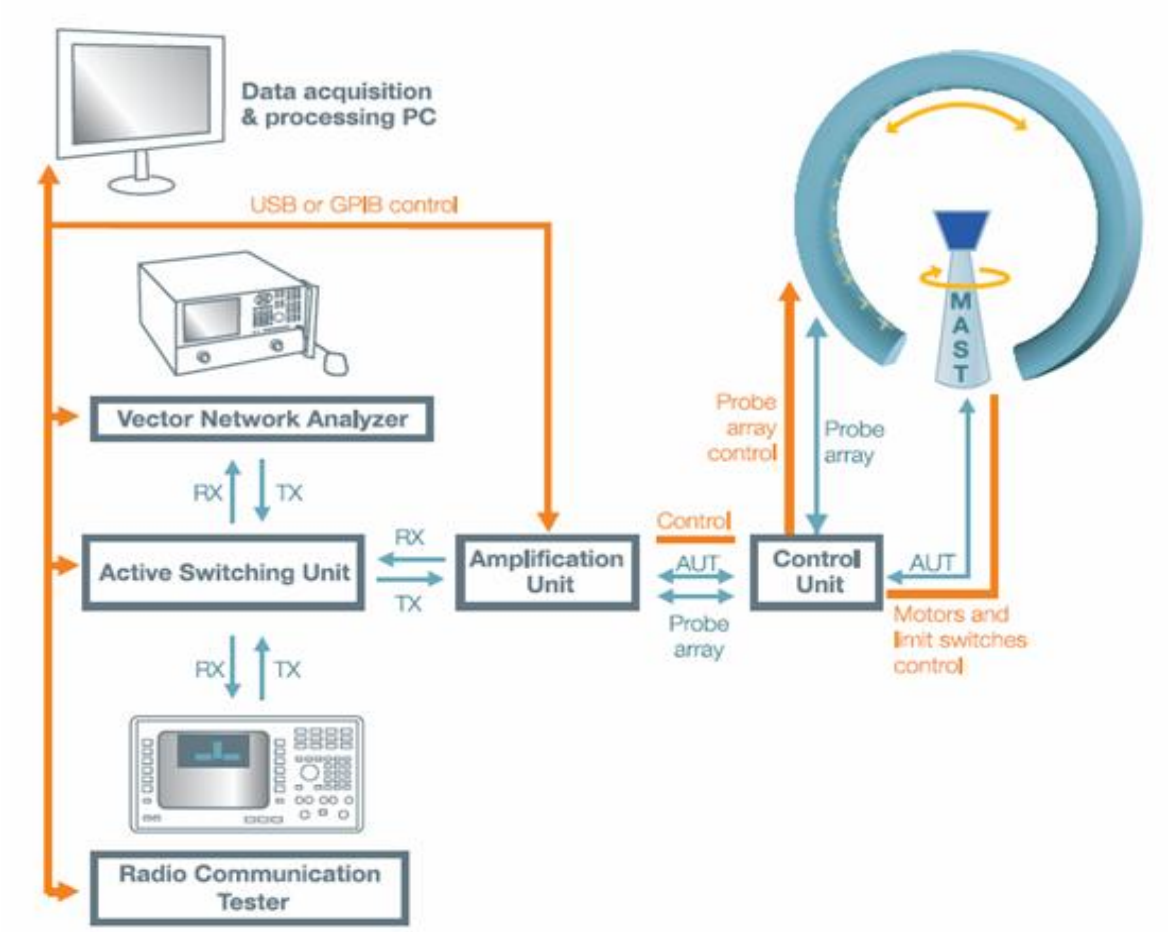
S参数测试
S Parameter Test

Agilent E5071C Network Analyzer	

RF Antenna(Return Loss)

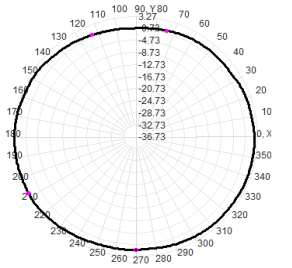
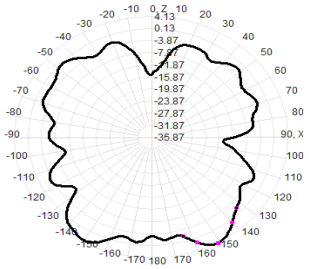
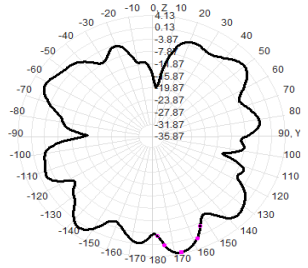
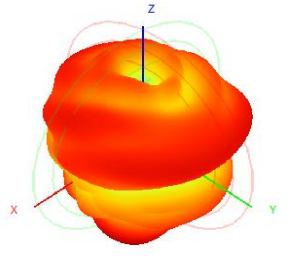
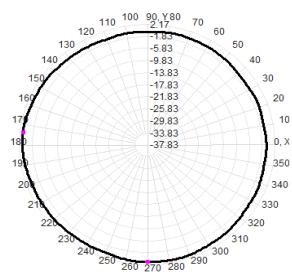
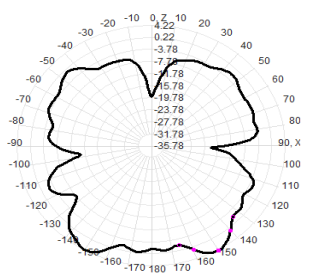
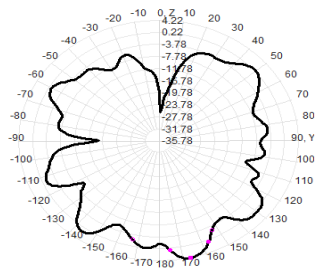
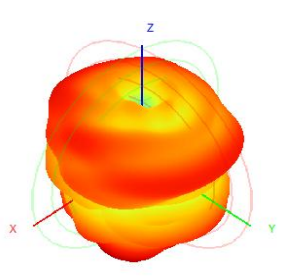
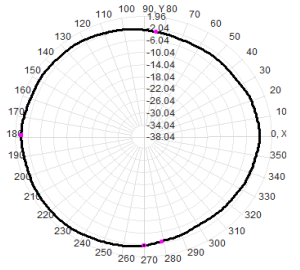
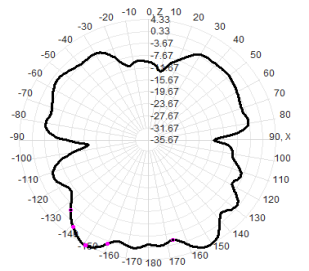
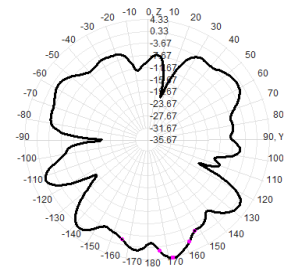
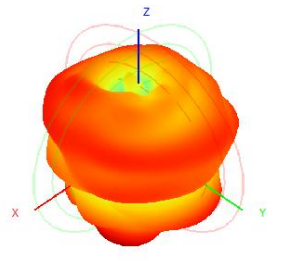
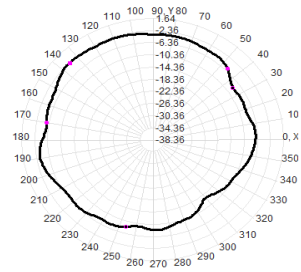
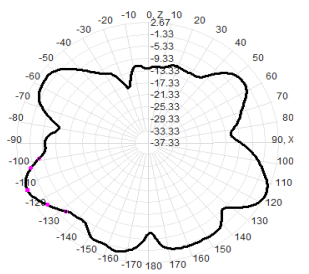
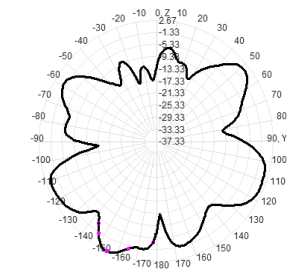
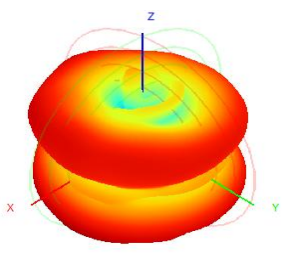
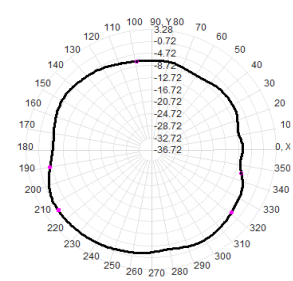
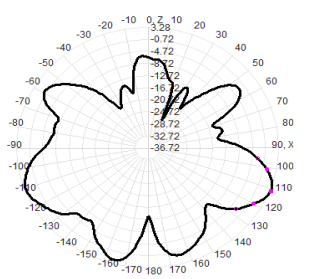
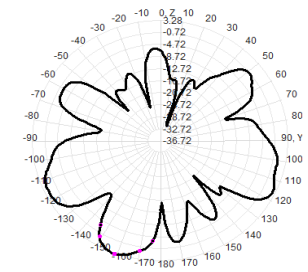
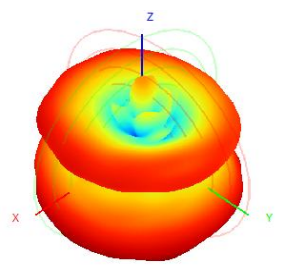


测试设备
Test Setup

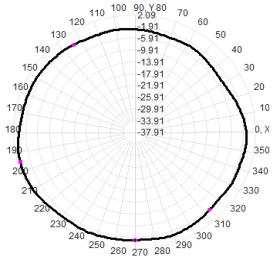
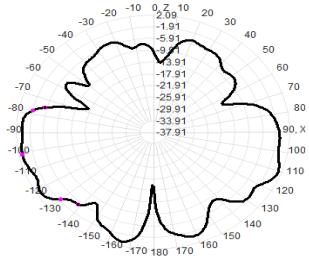
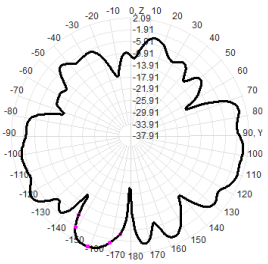
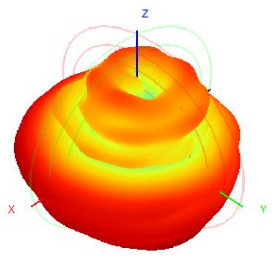
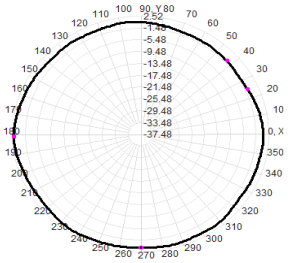
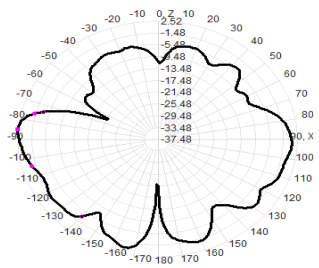
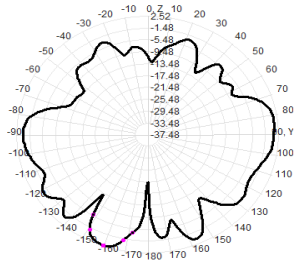
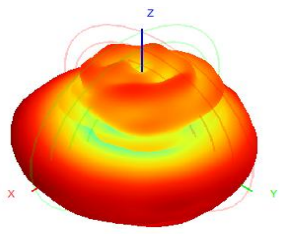
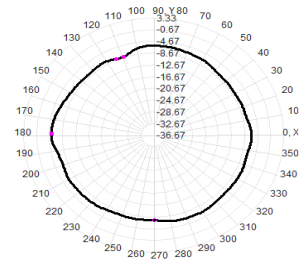
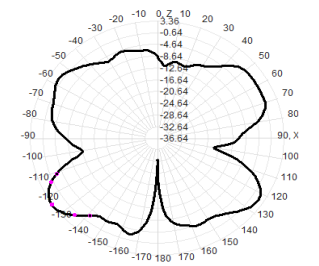
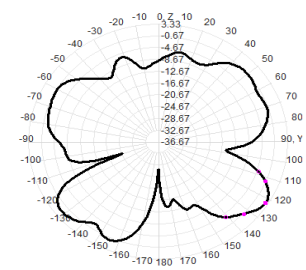
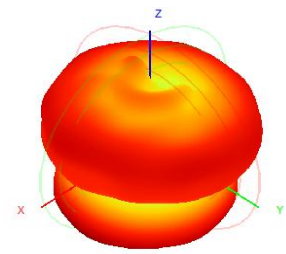
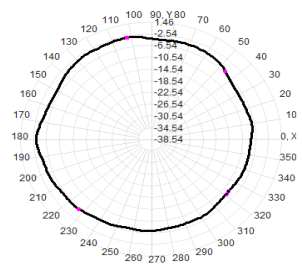
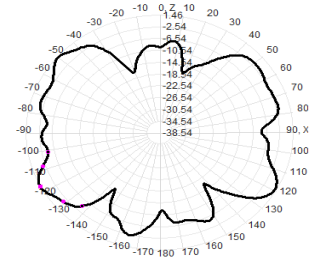
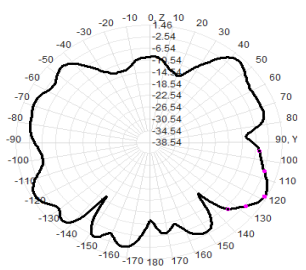
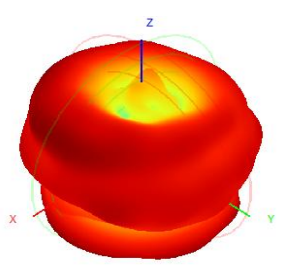


Chamber equipment list					
No.	Device	Type	Manufacturer	Serial No.	Calibration date
1	anechoic chamber test system	4*4*4Mm	FEITU	/	2022.11.29
2	network analyaer	E5071B	Agilent	JP1KK00301	2022.11.06
3	5G NR communication tester	MT8000A	Anritsu	6262093216	2022.12.24
4	4G communication tester	CMW500	R&S	1201.0002K50	2022.12.24

方向图
Pattern

	XoZ	YoZ	XoY	3D
2400				
2450				
2500				
5150				
5550				

方向图
Pattern

	XoZ	YoZ	XoY	3D
5850				
6000				
6500				
7150				

测试效率
Test Efficiency

Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Frequency (MHz)	2400	2420	2440	2460	2480	2500	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600
Gain (dBi)	3.26	3.37	3.01	2.83	3.02	3.57	3.16	3.55	3.61	3.53	3.23	3.39	3.24	3.41	2.91	3.52
Efficiency (%)	52.28	51.18	52.37	54.36	54.54	51.58	54.75	53.17	53.38	58.16	52.17	56.68	54.00	52.92	55.15	49.87

Frequency ID	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Frequency (MHz)	5650	5700	5750	5800	5850	5925	5975	6025	6075	6125	6175	6225	6275	6325	6375
Gain (dBi)	3.47	3.15	3.64	3.54	2.85	3.31	2.69	3.17	3.33	3.81	3.45	3.99	3.47	2.85	2.71
Efficiency (%)	52.97	48.00	48.95	49.52	51.06	52.71	55.08	53.03	55.45	56.76	55.14	55.06	54.24	53.15	53.14

Frequency ID	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
Frequency (MHz)	6425	6475	6525	6575	6625	6675	6725	6775	6825	6875	6925	6975	7025	7075	7125
Gain (dBi)	3.16	3.35	3.42	3.57	3.50	3.14	2.55	2.70	2.45	2.89	2.53	2.74	2.44	2.72	2.47
Efficiency (%)	55.76	53.54	53.35	54.77	55.30	54.09	50.58	49.40	47.10	48.54	44.15	45.78	48.53	48.02	47.58