

承 认 书

SPECIFICATION APPROVAL SHEET

客 户 :
CUSTOMER

客 户 料 号 :
CUS PART NO

版次:
REV X2

品 名 / 规格 : 2.4-2.5/5.15~5.85GHz
SPECIFICATION WIFI AUX Antenna L=145mm(Ø0.81+MHF) weight

供 方 料 号 :
SUP PART NO SLEingB240520145

日 期 :
DATE 2023.03.18

厂 商 核 准 :
SUP APPROVED

核准 APPROVED	审核 CHECKED	品保审核 QA CHECKED	承办 DESIGNED
Janghm	HZM	LSY	Xiongy

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

中国广东省东莞市松山湖工业东路24号现代企业加速器6栋402

Room 402, No. 6 Plant, Accelerator of Modern Enterprise, No. 24 Industry East Road
Songshanlake District, Donguan City, Guangdong Province, China.

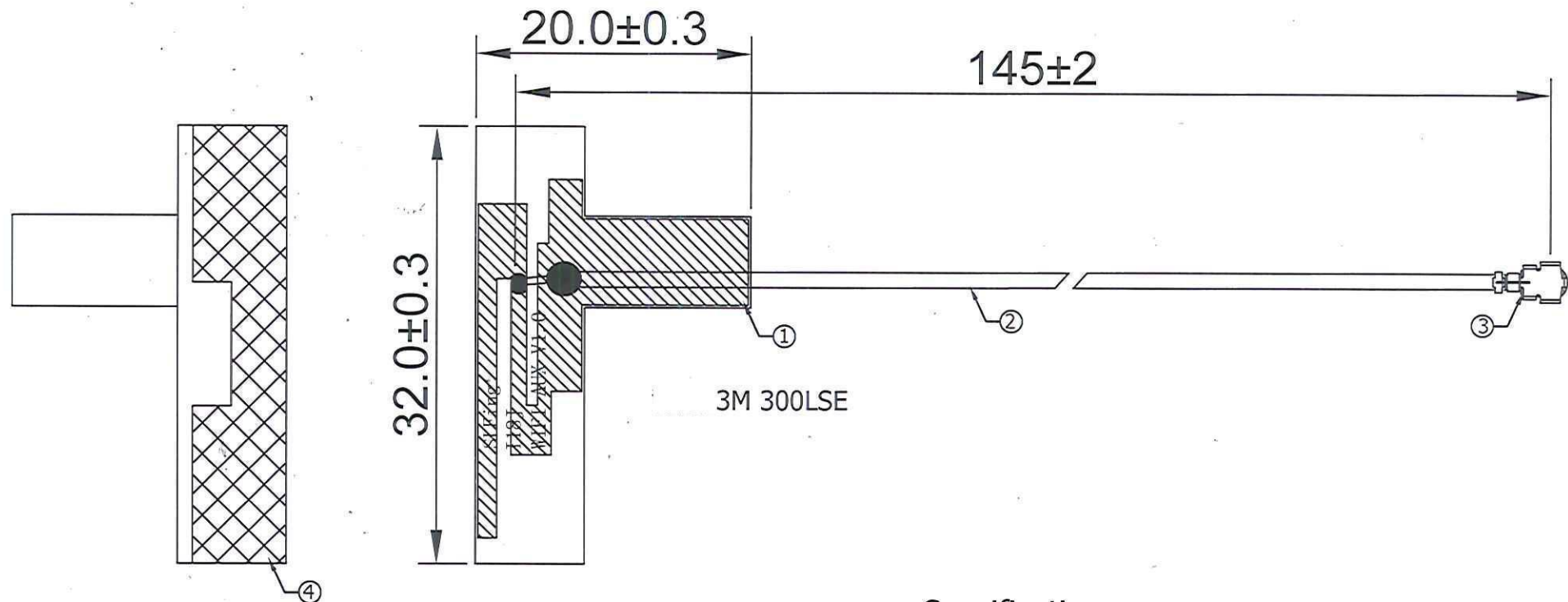
Tel: +86-0769-89208968

Fax: +86-0769-89208969

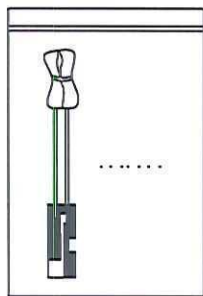
www.sleing.com

正本由承办单位保存

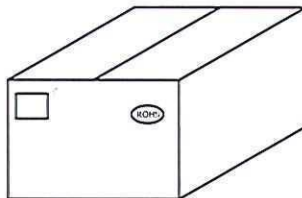
REV.	CONTENT	DATE
X1	First Sample	2023.03.11
X2	修改FPC	2023.03.18



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



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	
		S.L P/NO	
TOLERANCE UNLESS OTHERWISE SPECIFIED UNIT:mm ANGLES ±0.5° X. ±0.3 SHEET: 1/1 SCALE: 1/1 0.XX ±0.05 XX. ±0.5 XXX. ±2.0		SIZE	DRAWN
		CHECKED	APPROVED
		A4	
		2023.03.18	

NO	PART NAME	DESCRIPTION	REMARK	Q'TY
4	Foam	#513,L32.0*W6.8*T3.0mm		1
3	Connector	MHF Plug for Φ0.81 Cable	第四代端子	1
2	Cable	Φ0.81mm Coaxial Cable Black(低损耗),50Ω		1
1	FPCB	FPC,L32.0*W20.0*T0.1mm,Color:Black	300LSE Adhesive	1

Test Reports

Electrical Properties

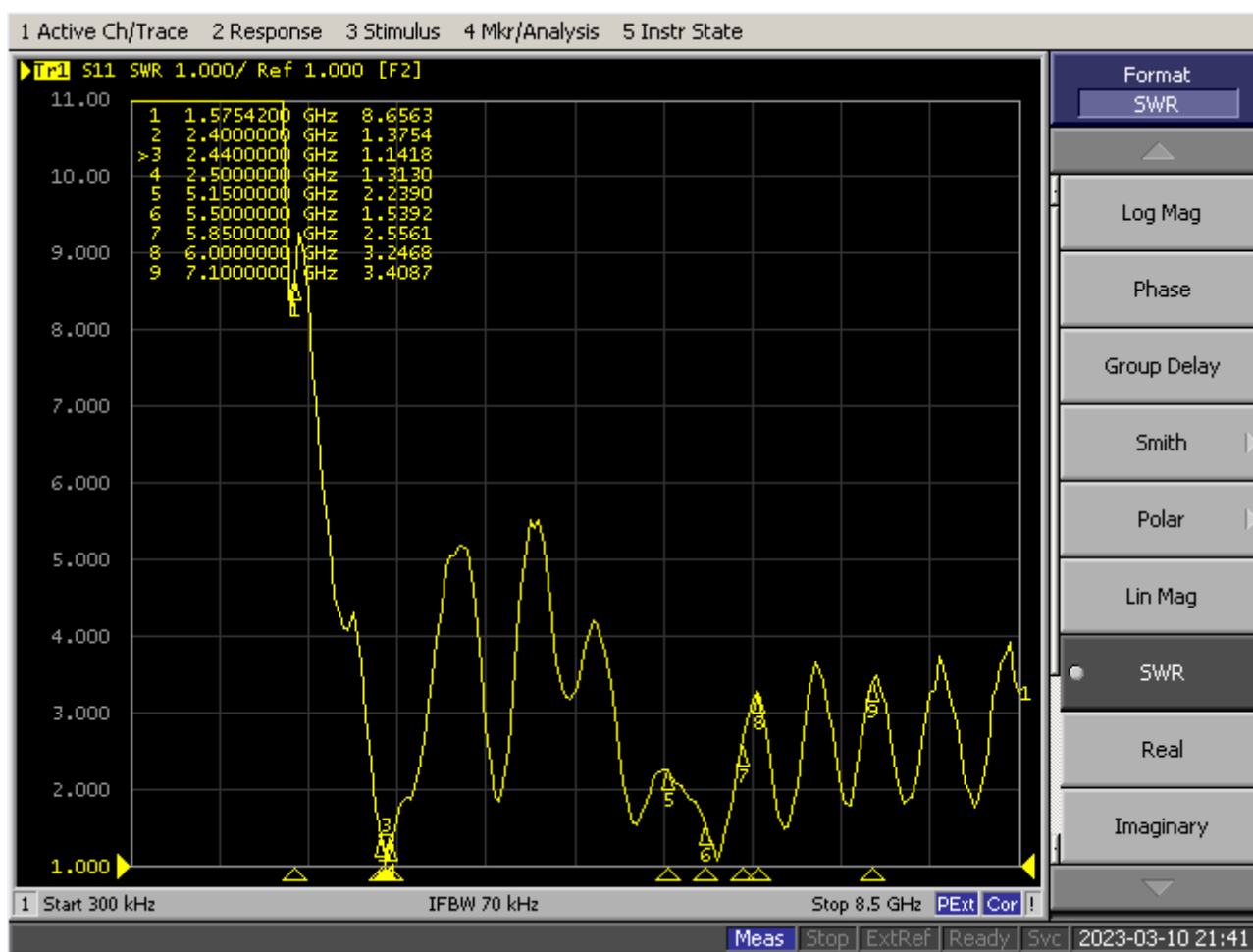
S 参数测试

S ParameterTest

Agilent E5071C Network Analyzer



WiFi 驻波 Antenna (NO.1)

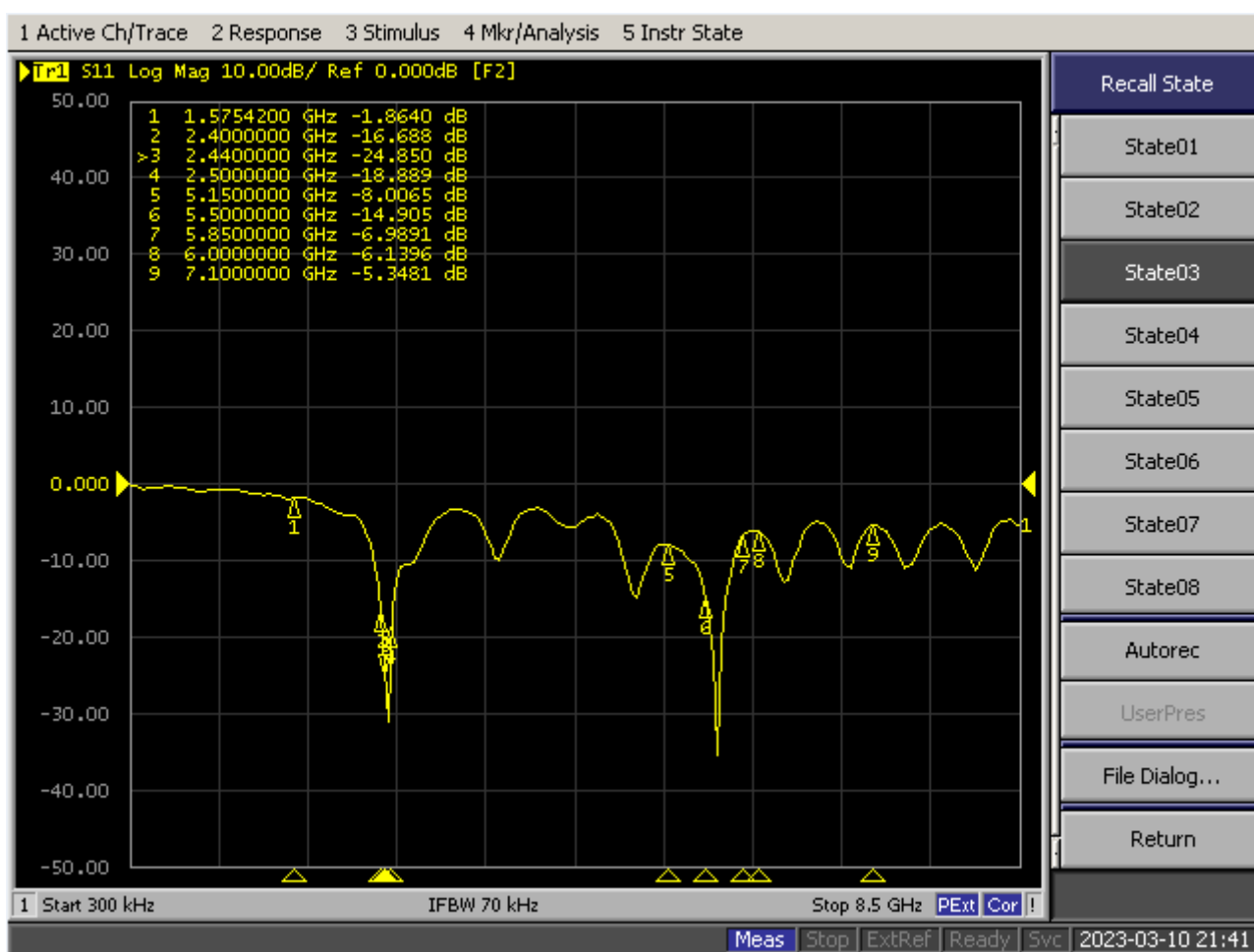


S 参数测试
S Parameter Test

Agilent E5071C Network Analyzer



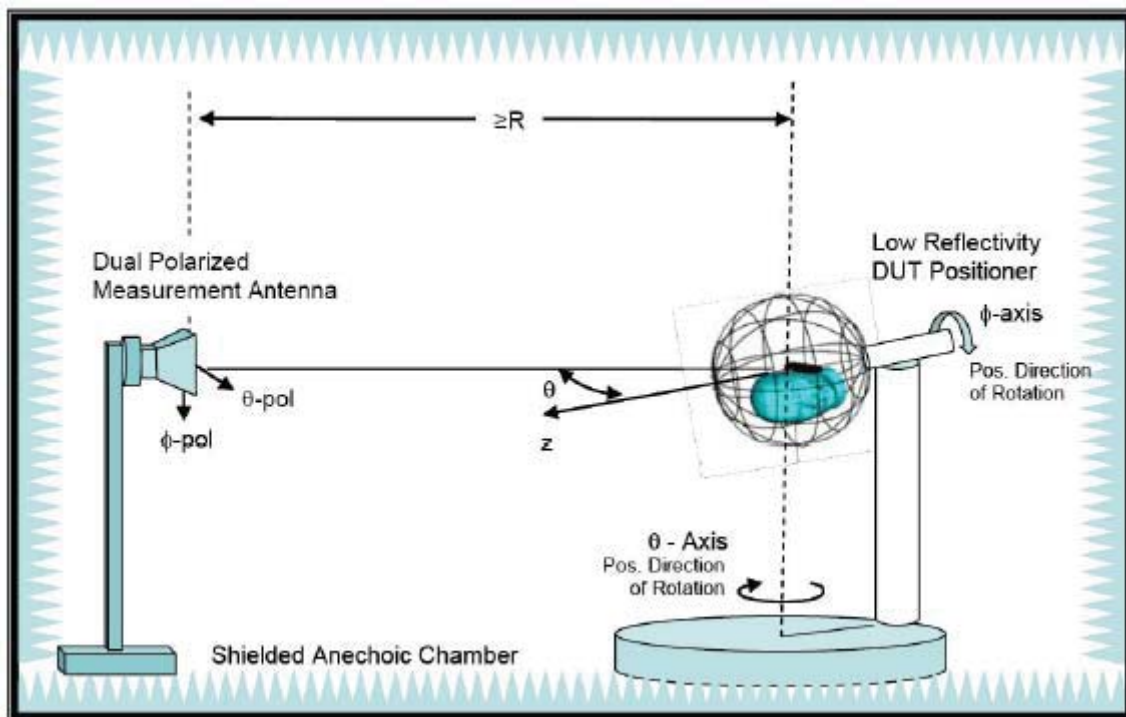
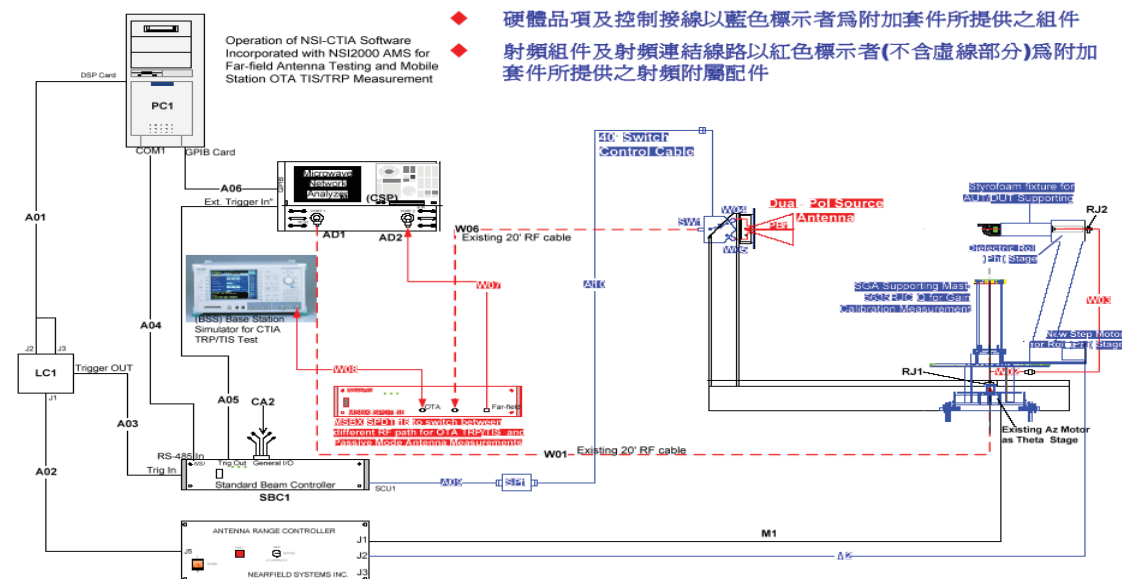
WiFi 回波损耗 Antenna (NO.1)



测试设备

Test Setup

NFC-500S 3D Chamber Coordinate System Definition



Configuration of 3D Chamber



测试效率 Test Efficiency

Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0	5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0	5850.0
Efficiency (dBi)	-4.14	-4.27	-4.48	-4.64	-4.81	-4.84	-4.73	-4.61	-4.61	-4.57	-4.47	-3.28	-3.29	-3.48	-3.59	-3.70	-3.78	-3.72	-3.54	-3.67	-3.78	-3.69	-3.51	-3.48	-4.00	-4.25
Gain (dBi)	1.65	1.84	1.70	1.39	1.16	1.08	1.21	1.34	1.27	0.87	0.95	2.05	2.29	2.06	2.25	1.46	2.11	2.77	3.49	1.80	1.98	2.27	2.93	3.44	2.34	3.03
Efficiency (%)	38.56	37.44	35.64	34.35	33.01	32.84	33.69	34.58	34.59	34.88	35.75	46.97	46.84	44.86	43.75	42.68	41.88	42.43	44.27	42.92	41.92	42.72	44.61	44.83	39.78	37.61
Directivity (dB)	5.78	6.11	6.18	6.03	5.98	5.92	5.94	5.96	5.88	5.45	5.42	5.33	5.58	5.54	5.84	5.16	5.89	6.50	7.03	5.47	5.75	5.97	6.44	6.93	6.35	7.28
Peak Gain Position (Theta)	69.00	69.00	67.00	67.00	68.00	67.00	68.00	69.00	68.00	70.00	68.00	12.00	13.00	114.00	122.00	135.00	132.00	15.00	124.00	138.00	140.00	142.00	46.00	46.00	46.00	83.00
Peak Gain Position (Phi)	349.00	350.00	350.00	350.00	350.00	350.00	351.00	350.00	351.00	351.00	352.00	274.00	90.00	275.00	275.00	277.00	277.00	96.00	275.00	273.00	272.00	271.00	227.00	226.00	225.00	243.00
Efficiency ThetaPol (%)	20.45	19.20	17.79	16.77	16.32	16.45	17.00	17.46	17.70	17.97	18.49	15.57	15.75	14.14	14.23	15.10	13.53	15.55	15.64	15.84	15.55	14.58	14.99	14.85	13.26	12.36
Efficiency PhiPol (%)	18.10	18.24	17.85	17.58	18.99	16.39	16.69	17.13	16.89	16.90	17.26	31.40	31.10	30.73	29.52	27.57	28.35	26.88	28.63	27.08	26.38	28.14	29.61	29.97	26.52	25.25
Upper Hem. Efficiency (%)	18.91	18.68	18.58	18.33	18.37	19.21	20.32	21.35	21.67	21.54	22.08	24.36	24.37	23.08	21.86	21.72	20.54	21.59	22.96	22.27	21.42	21.96	23.19	23.65	21.23	19.92
Lower Hem. Efficiency (%)	19.65	18.76	17.06	16.02	14.63	13.62	13.37	13.23	12.92	13.34	13.67	22.62	22.48	21.78	21.89	20.96	21.34	20.84	21.31	20.66	20.51	20.76	21.42	21.18	18.56	17.69



OTA

Test Data:		2023/3/8		WIFI模块: Intel AX200		天线厂: 自调, 森岭打样		
项目: 主+副天线			Performance request (性能要求)		信道	结果	判定	备注
2.4G WiFi_11b_CCK_11M	TRF	≥11±1dbm	1		12.98	PASS		
			7		12.13			
			13		11.63			
	TIS	≤-80dbm	1		-83.38	PASS		
			7		-82.52			
			13		-83.79			
5G WiFi_11a_54M	TRF	≥9dbm	36		12.31	PASS		
			64		12.45			
			157		13.85			
	TIS	≤-64dbm	36		-69.04	PASS		
			64		-69.67			
			157		-72.91			