

东莞市松汇实业有限公司

Dongguan Songhui Co., LTD

专注天线方案、设计与生产

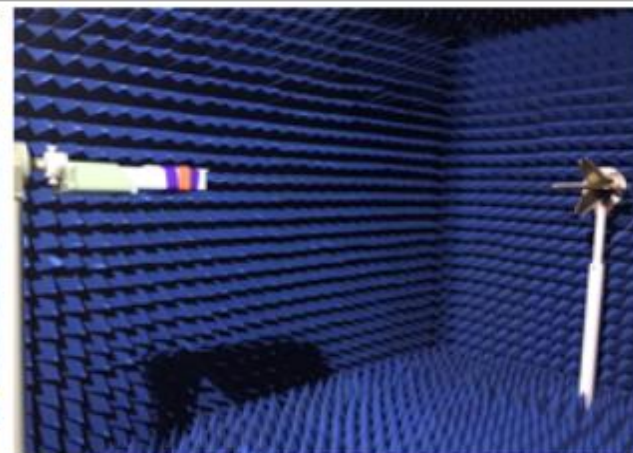
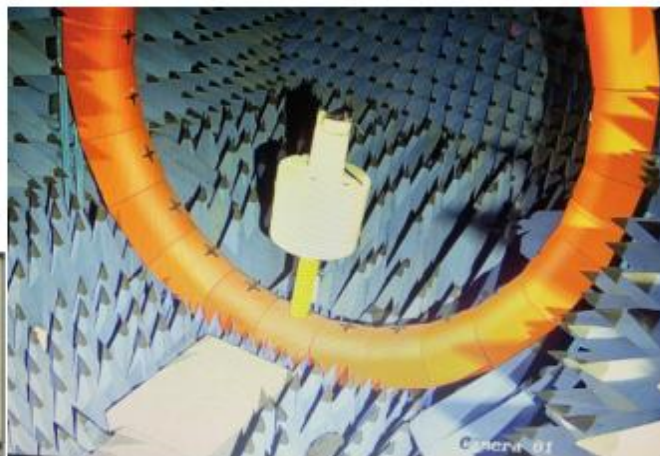
客 户：北科
项 目：S1
日 期：2025. 11. 10
射 频：LUO YI

目 录

1. 测试环境
2. 历次调试记录说明
3. 匹配电路说明
4. 有源测试数据
5. 传导测试数据
6. 通话电流声模拟测试
7. 环境处理说明
8. GPS/WIFI/BT无源参数
9. GPS/WIFI/BT实测效果
10. 总结

测试环境

	测试项目	设备
1. S参数 (S-parameter)	1. 回波损耗 (Return Loss) 2. 电压驻波比 (VSWR)	网络分析仪: Agilent E5071B ×2 HP 8753D PROTEK A338
2. 有源测试 (Active)	1. 发射功率 (TRP) 2. 接收灵敏度 (TIS) 3. 频率误差 4. 屏灭、屏亮	1. 暗室: 广平 7x4x3 m (单探头 3D) Chamber ETS 5x3x3 m (3D) Chamber 2. 综合测试仪: Agilent 8960 ×2 CMW500 ×3/CMU200
3. 无源测试 (Passive)	1. 天线增益 (Gain) 2. 天线效率 (Efficiency)	1. 暗室: 7x4x3 m (24探头 3D) Chamber ETS 5x3x3 m (3D) Chamber 2. 网络分析仪: Agilent E5071B



历次调试记录说明

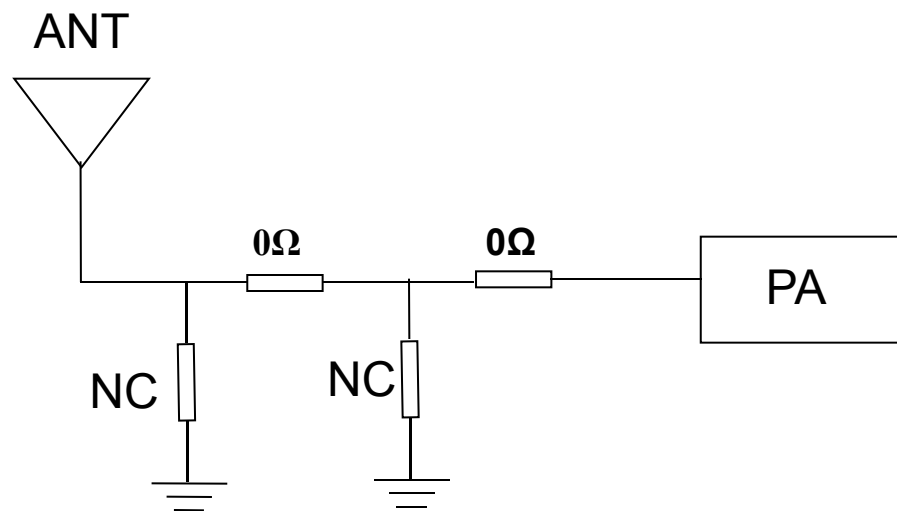
日期	版本	版型	调试记录说明
2025. 11. 10	A		FPC样，调试样机



整机调试说明

机型	投影仪						
版型	主板						
天线概况	主天线	频 段		天线状态	天线形式	设计区域	匹配改动
		2G	N/A	N/A	N/A	N/A	N/A
		3G	N/A				
		4G	N/A				
	其它天线	WIFI/BT	2. 4/5G	FPC样	PIFA	壳料	无
		GPS	N/A				
		分集	N/A	N/A	N/A	N/A	N/A
样机状态	调试样机			环境处理	无		

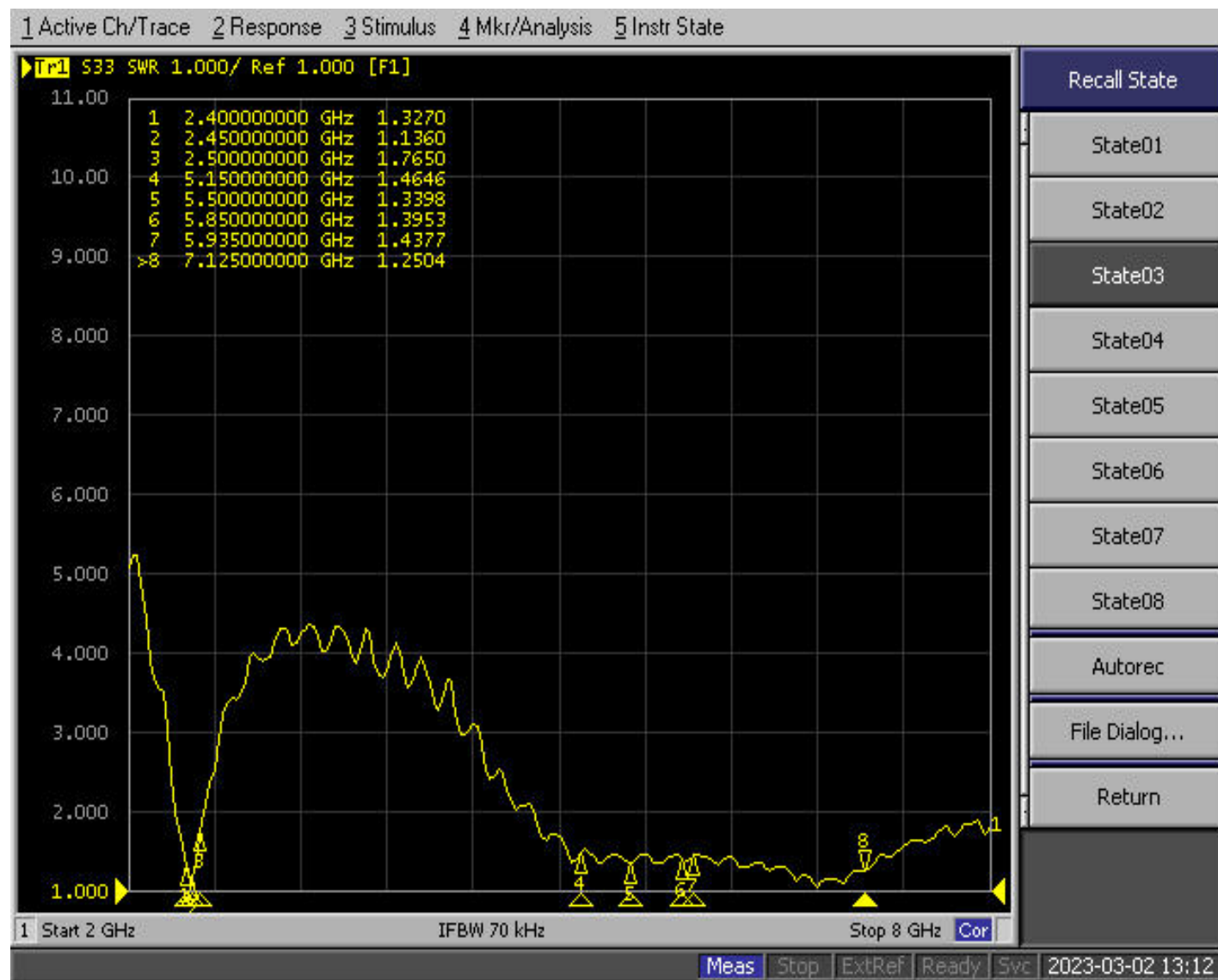
匹配电路-天线

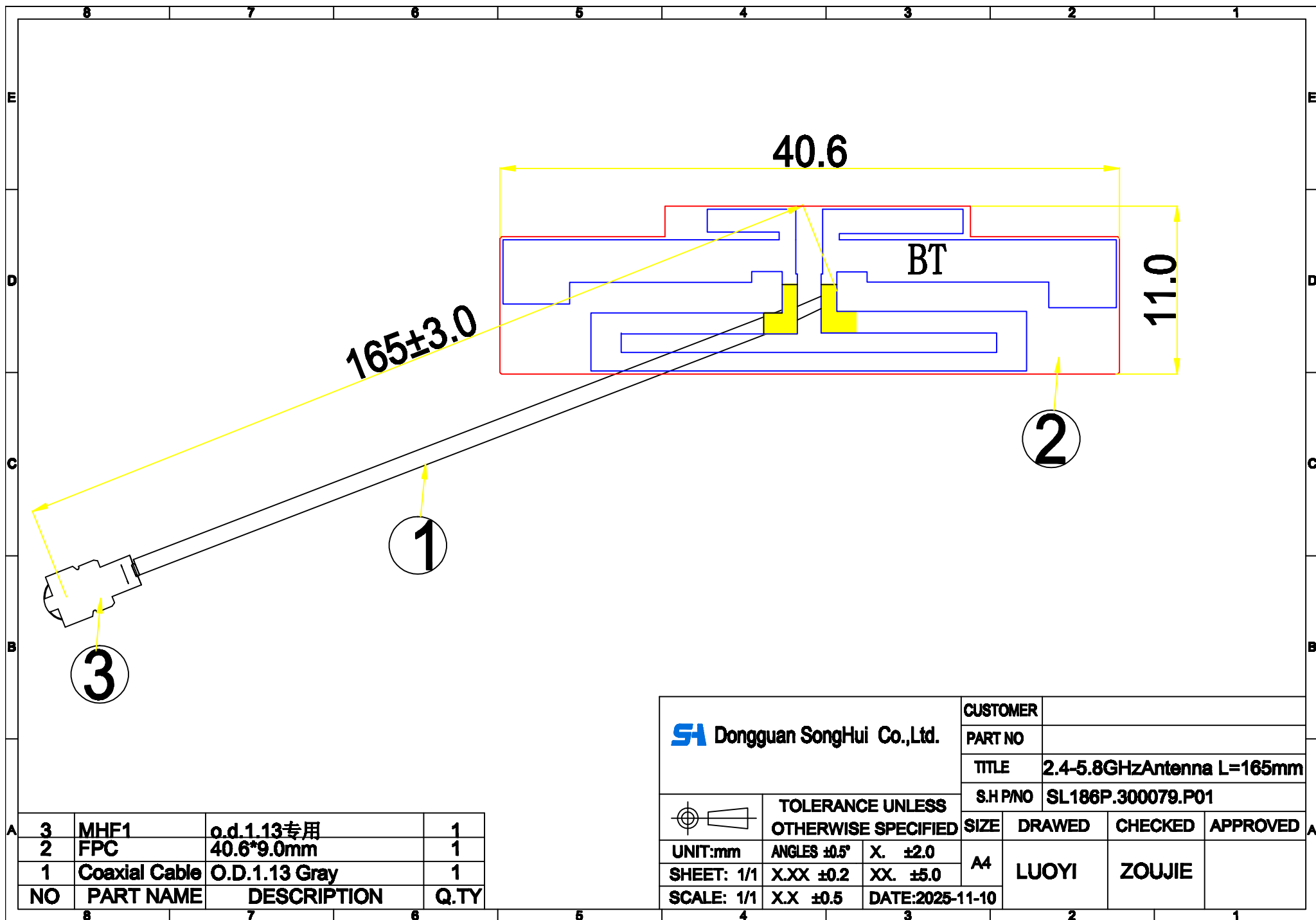


匹配电路无更改

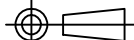
无源-SWR-2#

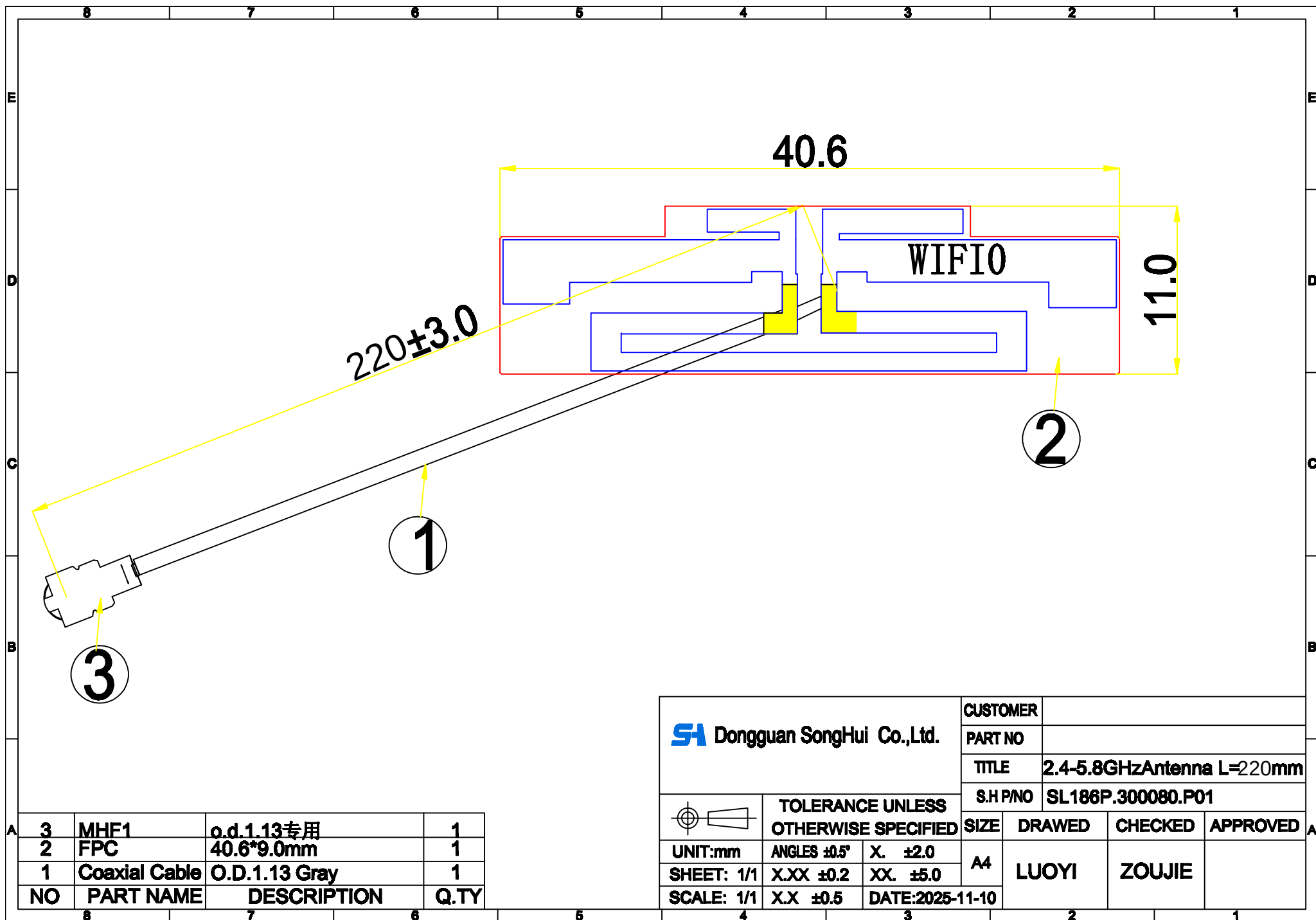
2#



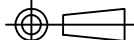


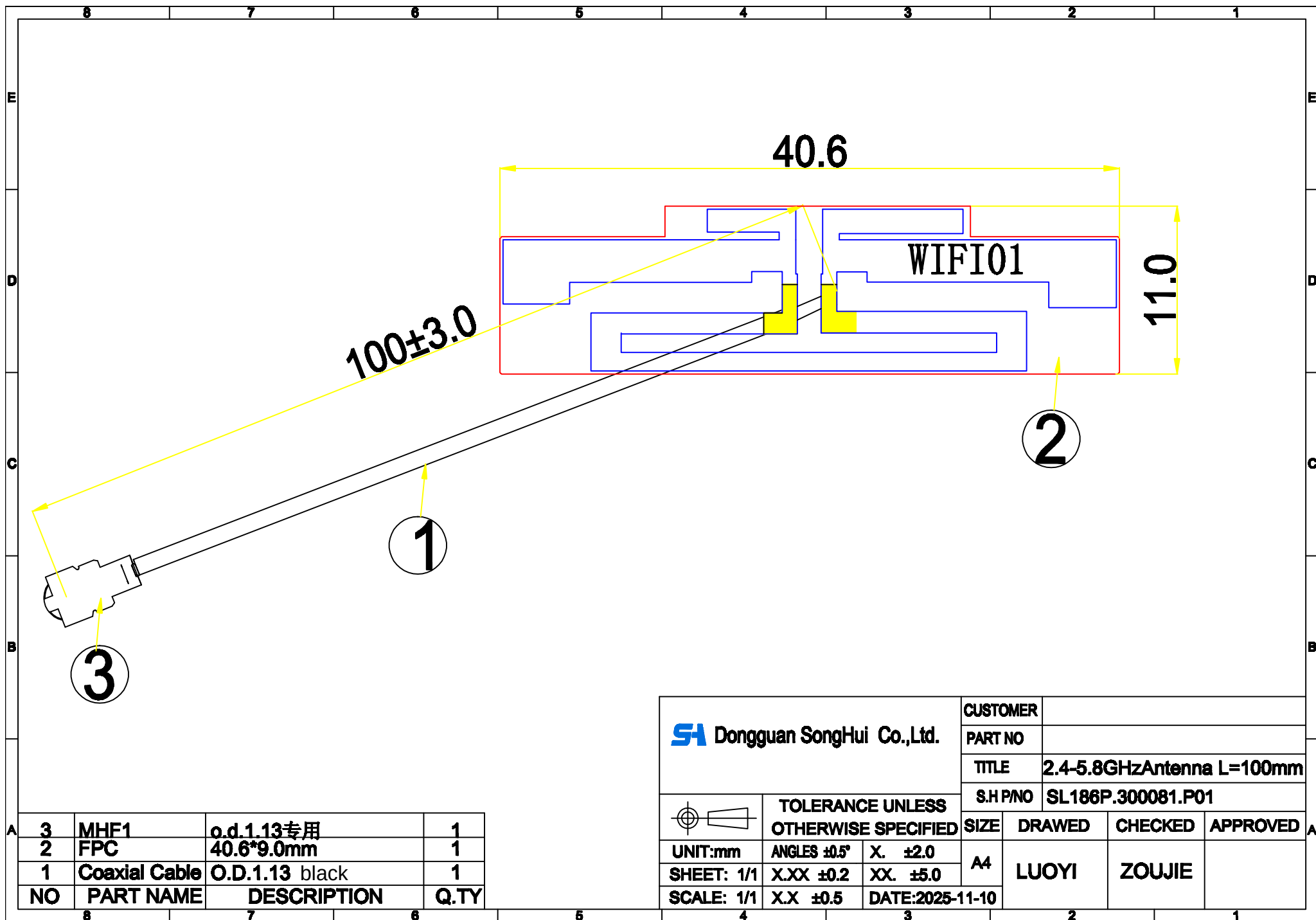
3	MHF1	o.d.1.13专用	1
2	FPC	40.6*9.0mm	1
1	Coaxial Cable	O.D.1.13 Gray	1
NO	PART NAME	DESCRIPTION	Q.TY

 Dongguan SongHui Co.,Ltd.			CUSTOMER			
			PART NO			
			TITLE		2.4-5.8GHzAntenna L=165mm	
			S.H PNO		SL186P.300079.P01	
	TOLERANCE UNLESS OTHERWISE SPECIFIED		SIZE	DRAWED	CHECKED	APPROVED
UNIT:mm	ANGLES $\pm 0.5^{\circ}$	X. ± 2.0	A4	LUOYI	ZOUJIE	
SHEET: 1/1	X.XX ± 0.2	XX. ± 5.0				
SCALE: 1/1	X.X ± 0.5	DATE:2025-11-10				



3	MHF1	o.d.1.13专用	1
2	FPC	40.6*9.0mm	1
1	Coaxial Cable	O.D.1.13 Gray	1
NO	PART NAME	DESCRIPTION	Q.TY

 Dongguan SongHui Co.,Ltd.			CUSTOMER			
			PART NO			
			TITLE		2.4-5.8GHzAntenna L=220mm	
			S.H P/NO		SL186P.300080.P01	
	TOLERANCE UNLESS OTHERWISE SPECIFIED		SIZE	DRAWED	CHECKED	APPROVED
UNIT:mm	ANGLES $\pm 0.5^{\circ}$	X. ± 2.0	A4	LUOYI	ZOUJIE	
SHEET: 1/1	X.XX ± 0.2	XX. ± 5.0				
SCALE: 1/1	X.X ± 0.5	DATE:2025-11-10				



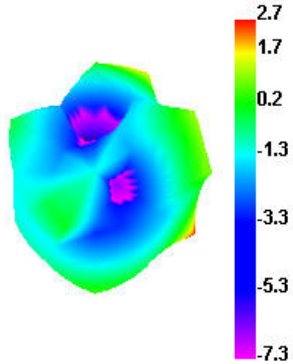
无源-Efficiency/Gain-1#

Freq (MHz)	Effi (%)	Gain (dBi)
2400	55.2	2.7
2410	59.21	2.95
2420	63.1	3.21
2430	62.19	3.2
2440	64.77	3.44
2450	66.82	3.59
2460	64.15	3.37
2470	63.33	3.26
2480	60.48	2.89
2490	60.2	2.72
2500	57.9	2.54

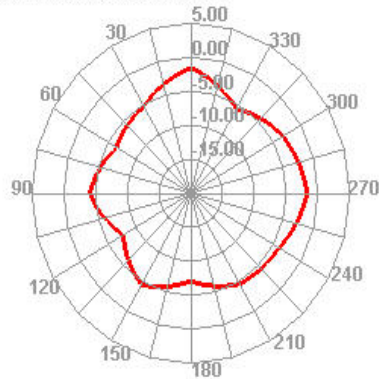
Freq (MHz)	Effi (%)	Gain (dBi)
5150	58.36	4
5170	50.69	3.05
5190	52.05	3.61
5210	49.29	2.86
5230	51.8	3.59
5250	49.2	2.89
5270	47.39	3.24
5290	47.3	3.08
5310	48	3.5
5330	48.98	3.14
5350	52.52	4.16
5370	47.28	3.36
5390	50.54	3.87
5410	55.18	4.59
5430	54.98	4.72
5450	54.4	4.47
5470	59.64	5.13
5490	56.16	4.79
5510	56.89	4.96
5530	60.53	5.02
5550	60.99	4.83
5570	62.04	4.59
5590	57.51	3.83
5610	57.8	3.6
5630	56.54	3.26
5650	58.71	3.62
5670	58.2	3.43
5690	52.7	3.16
5710	53.02	3
5730	54.57	3.03
5750	51.58	2.46
5770	50.29	2.97
5790	50.11	2.57
5810	51.51	3.1
5830	53.13	2.73
5850	53.56	2.67

无源-3D Pattern-1#

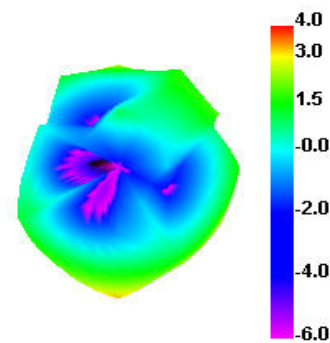
2400.000MHz



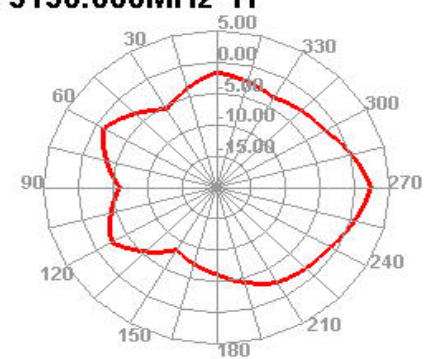
2400.000MHz H



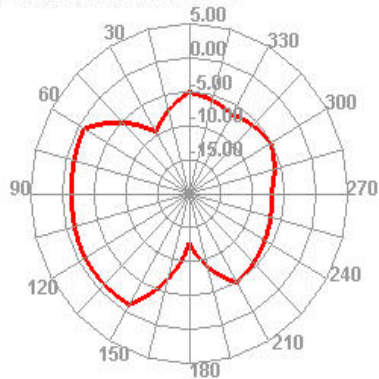
5150.000MHz



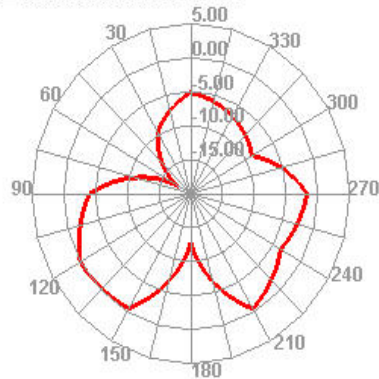
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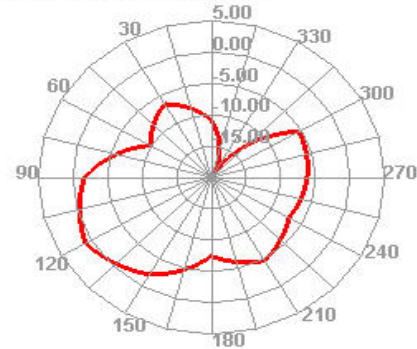
2400.000MHz E1



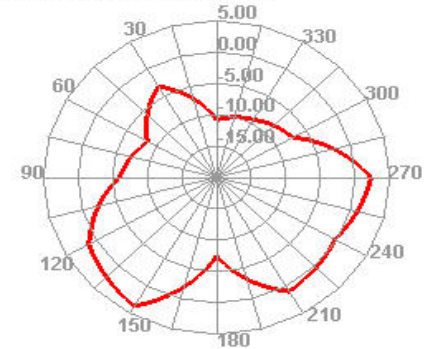
2400.000MHz E2



5150.000MHz E1



5150.000MHz E2



有源-TRP/TIS

带宽 (MHz)	测试项	模式	速率(Mbps)	信道	频率(MHz)	测试值 (dbm)	测试项目
20	TRP	B	11	1	2412	18.58	S1
				6	2437	18.12	
				11	2462	18.58	
		G	54	1	2412	13.69	
				6	2437	15.07	
				11	2462	15.84	
		N	MCS7	1	2412	13.47	
				6	2437	14.26	
				11	2462	14.5	
		A	54	36	5180	12.01	
				149	5745	15.42	
				165	5825	14.46	
	TIS	B	11	1	2412	-88	
				6	2437	-88	
				11	2462	-88	
		G	54	1	2412	-77	
				6	2437	-77	
				11	2462	-77	
		N	MCS7	1	2412	-73	
				6	2437	-73	
				11	2462	-73	
		A	54	1	2412	-69	
				6	2437	-69	
				11	2462	-69	

天线位置

