

Specification for Approval

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Customer P/N:	62-00108-00HL	HL P/N:	6N9A190
Customer Device Name:	PCB Antenna	HL Device Name:	Q-5159-09CO
Version:	A	Approval Date:	2022-10-14

Internal Approval		
Approved By:	Checked By:	Prepared By:
Wei Zhang	Wei Zhang	Yuanyuan Wu
Customer Approval		

➤ **Electrical Specifications:**

NO.	Item	Specifications
1	Model No.	Q-5159-09CO
2	Antenna Type	PCB Antenna
3	Frequency range (MHz)	5150-5850MHz
4	VSWR(整机测试)	< 2.0
5	Peak Gain	10dBi

Outline

1.Benchmark

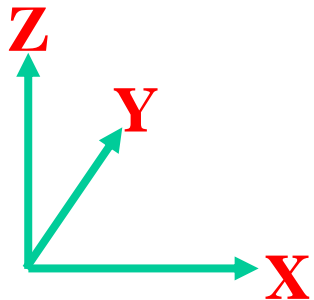
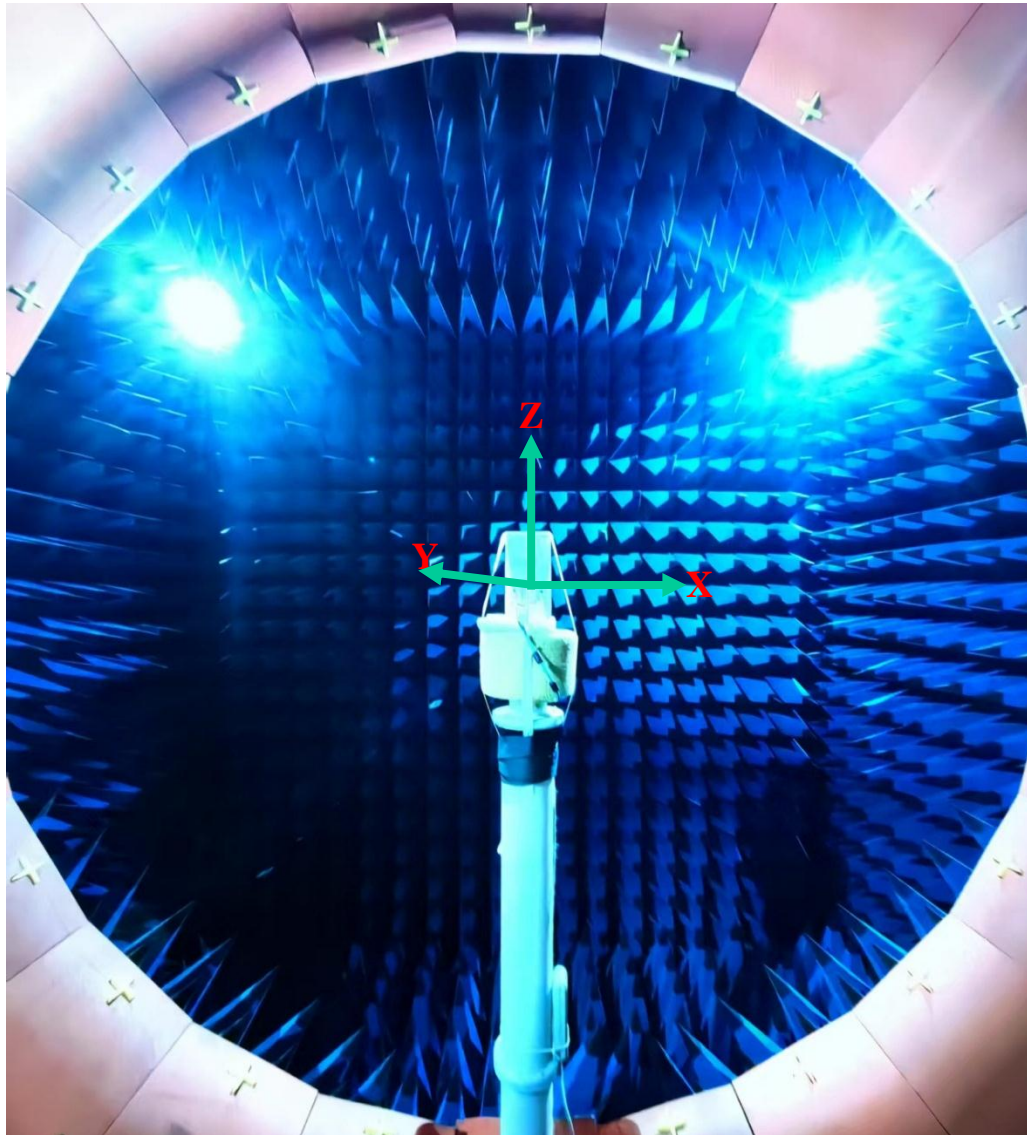
2.S-Parameters(VSWR&isolation)

3.Antenna Efficiency& Peak Gain

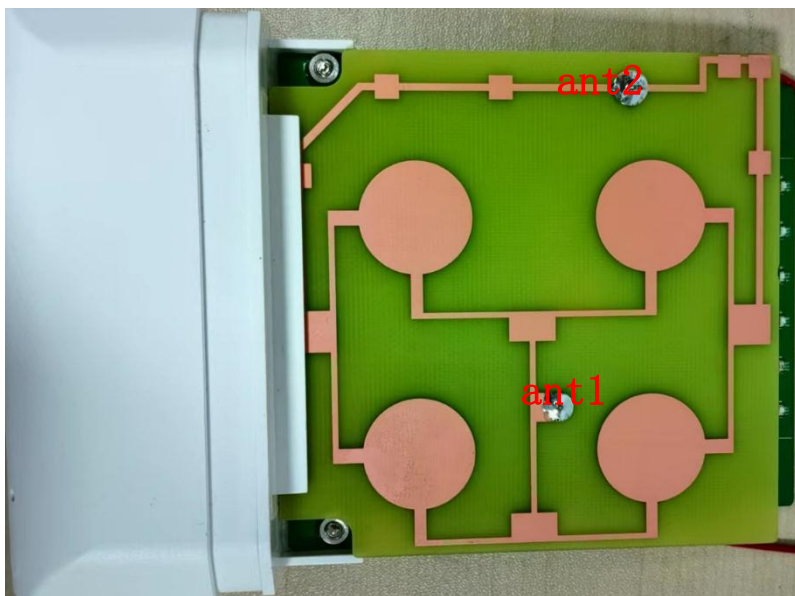
4.Radiation patterns

5.Summary

1. Benchmark



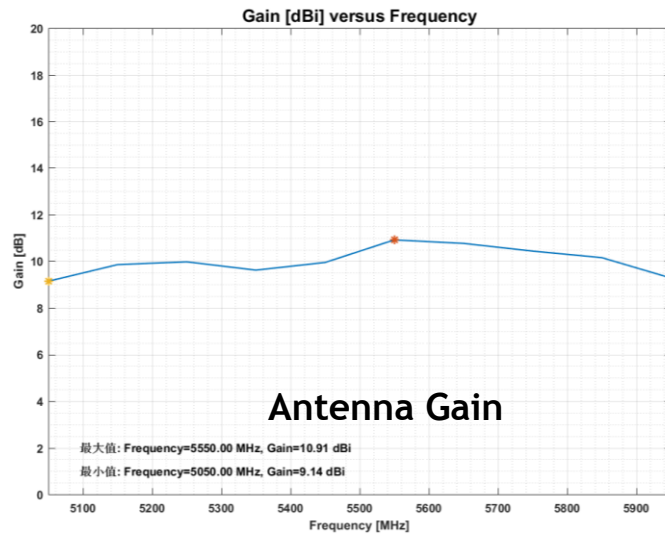
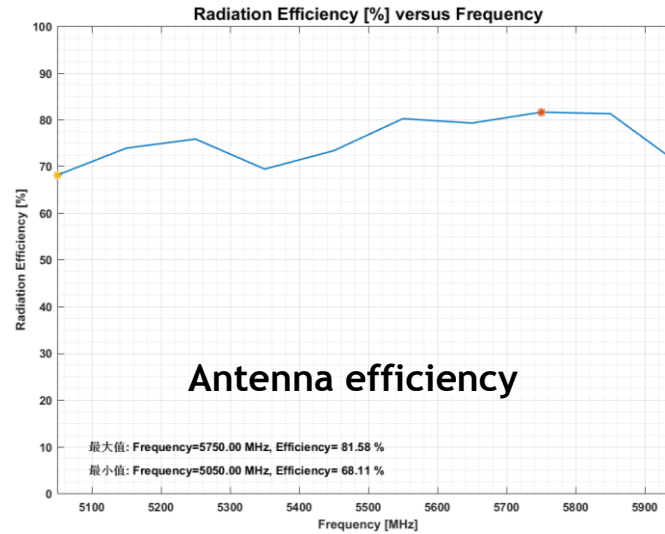
1. Benchmark



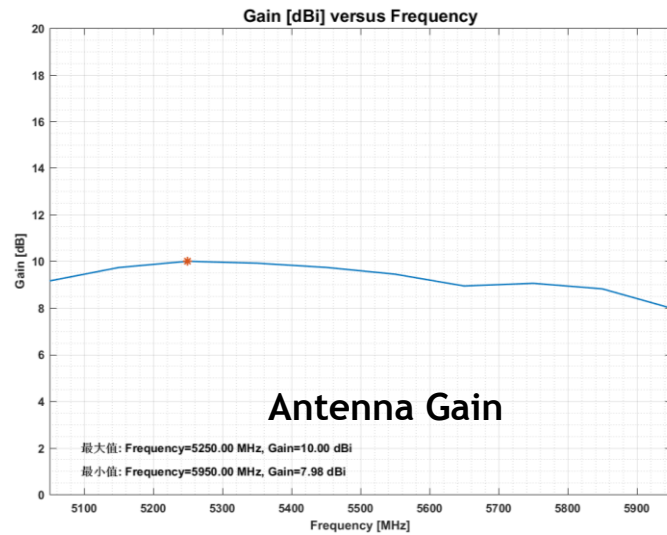
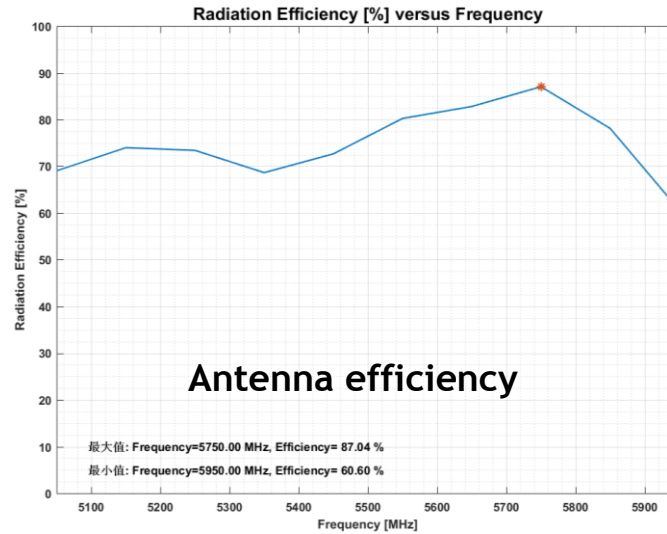
2. S-Parameters (VSWR)



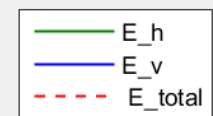
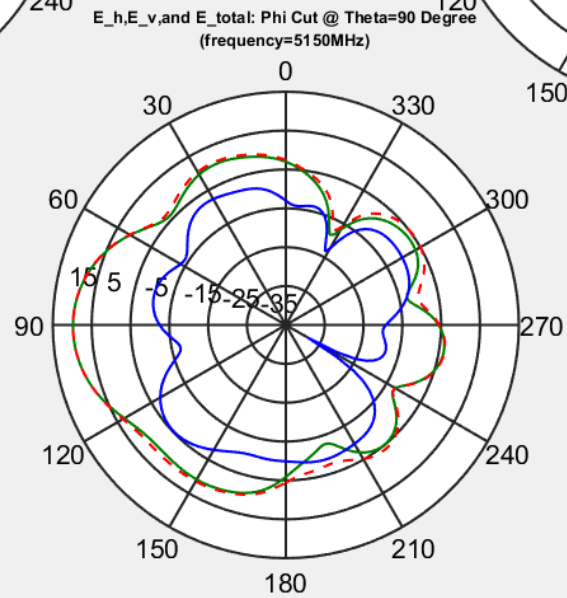
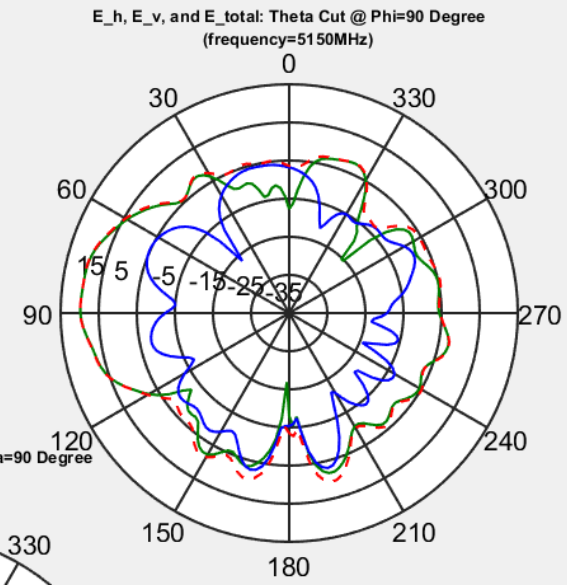
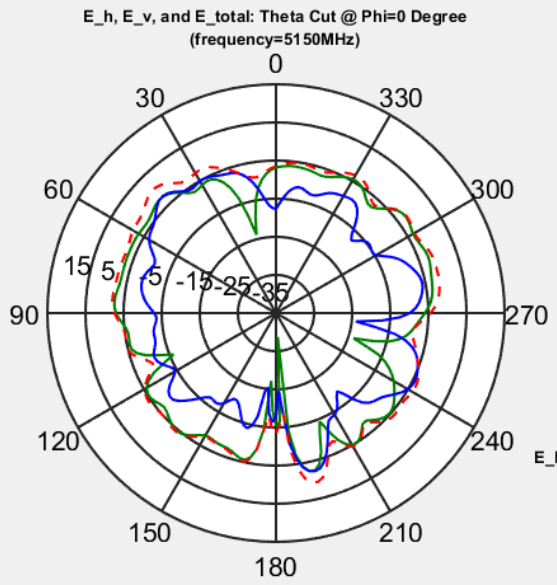
3. Antenna Efficiency & Peak Gain (ant 1)



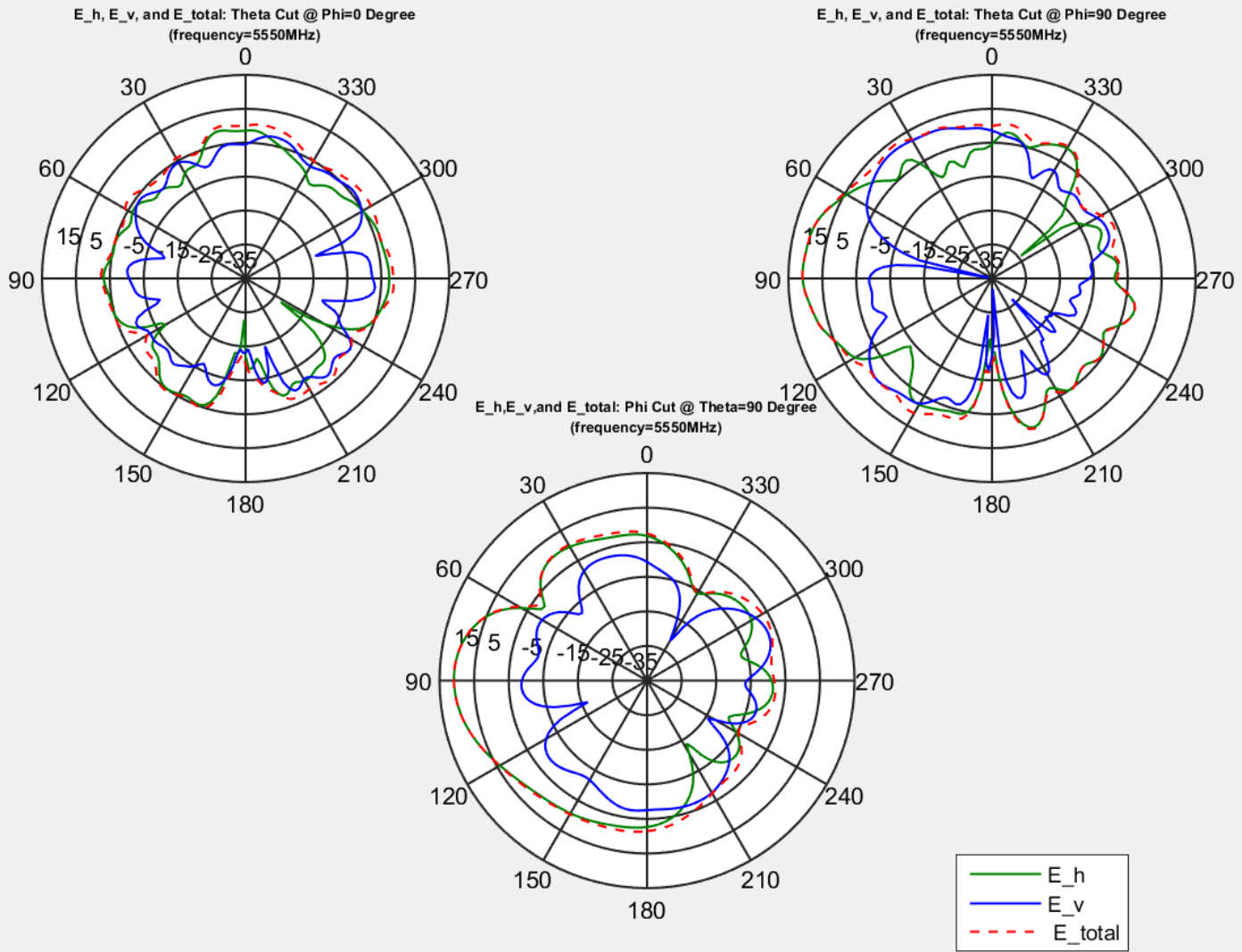
3. Antenna Efficiency & Peak Gain (ant 2)



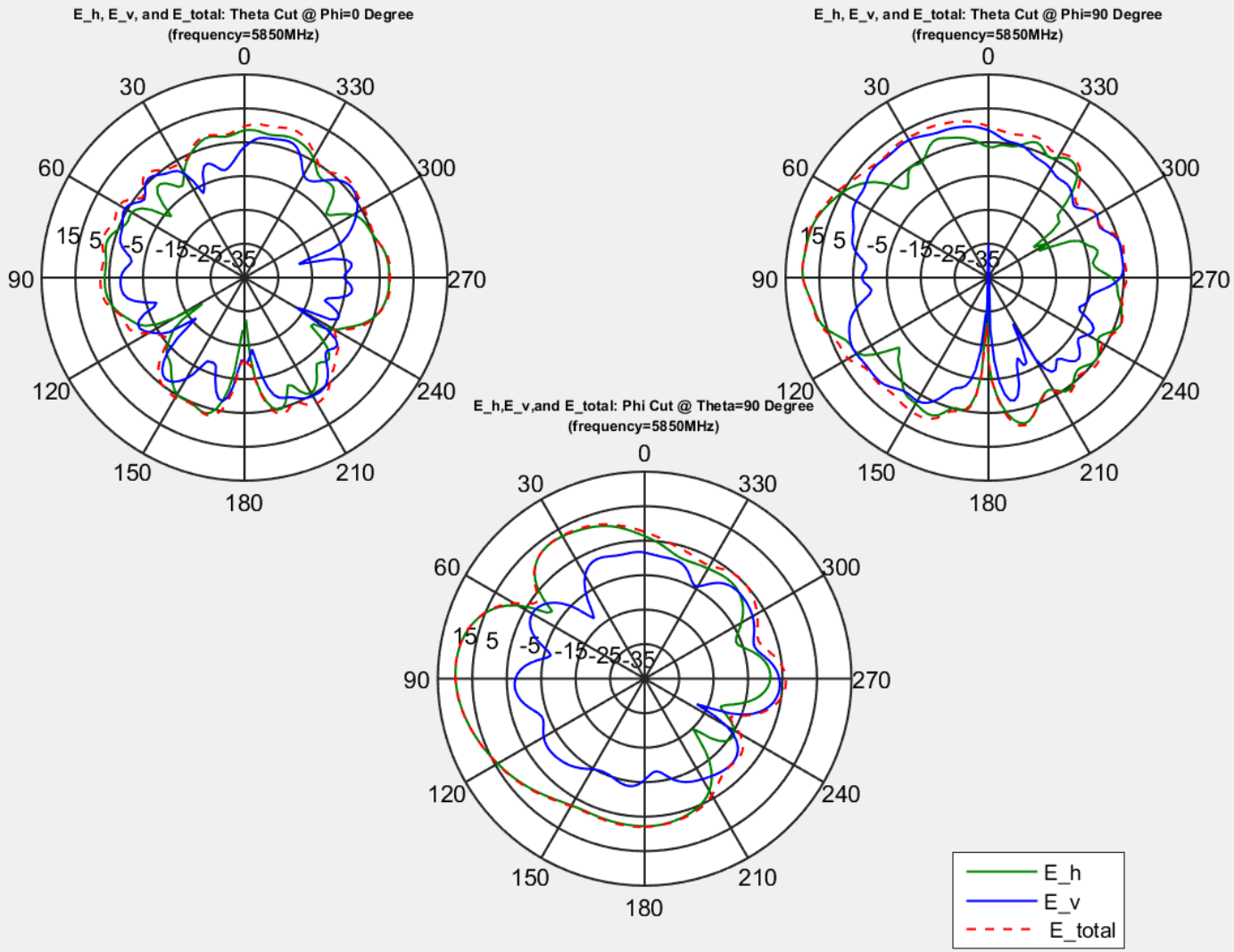
4. Radiation patterns (ant1@5150MHz)



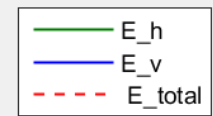
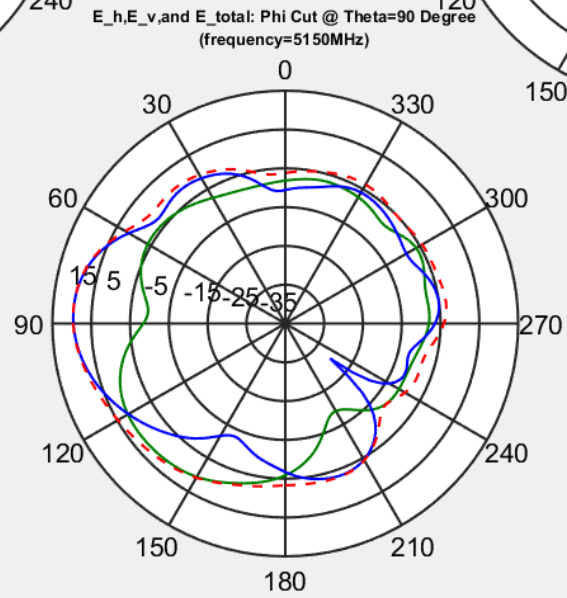
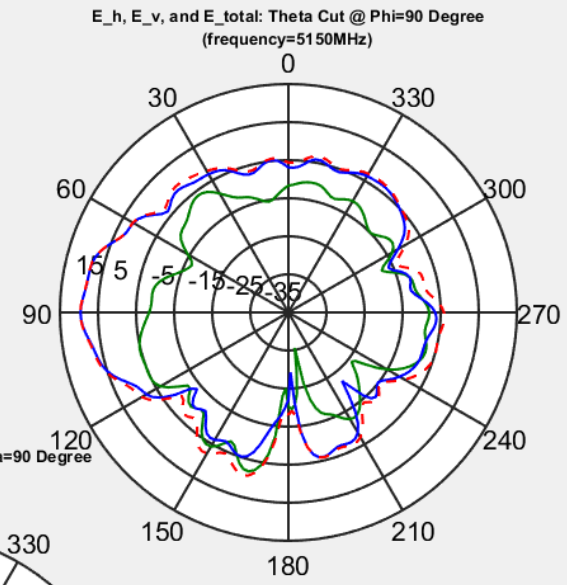
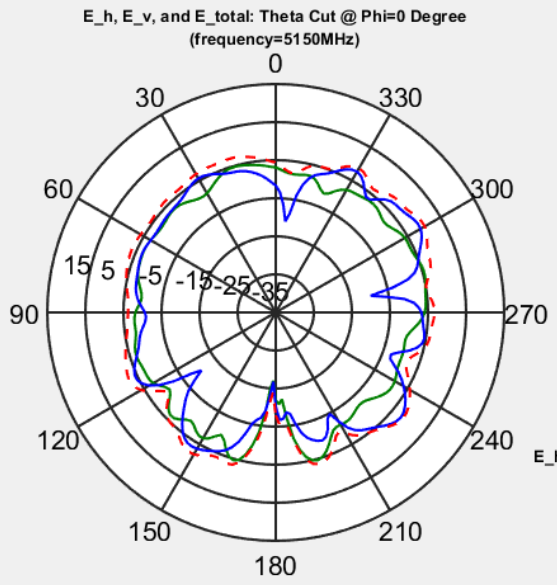
4. Radiation patterns (ant1@5550MHz)



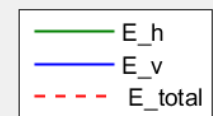
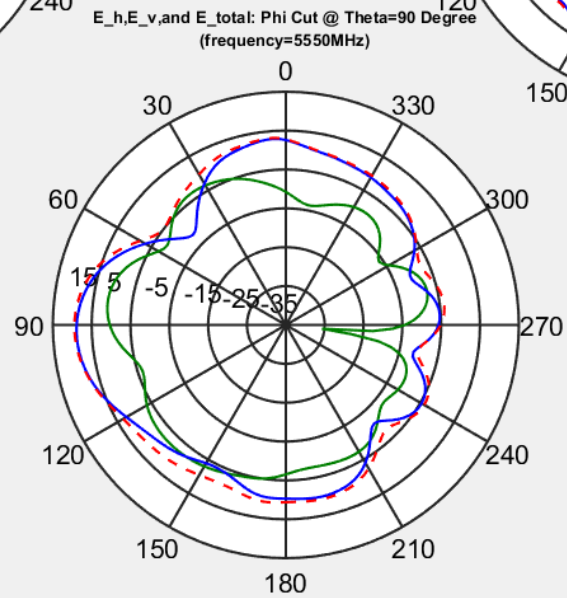
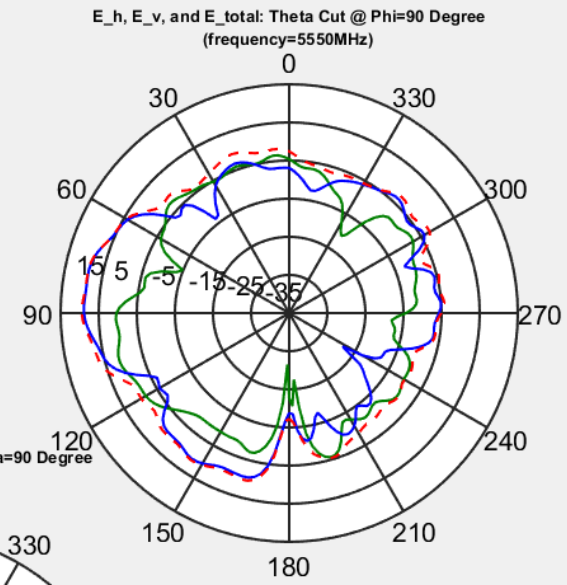
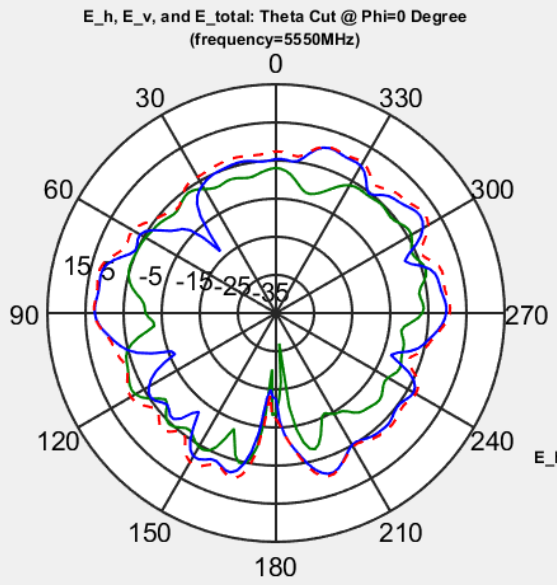
4. Radiation patterns (ant1@5850MHz)



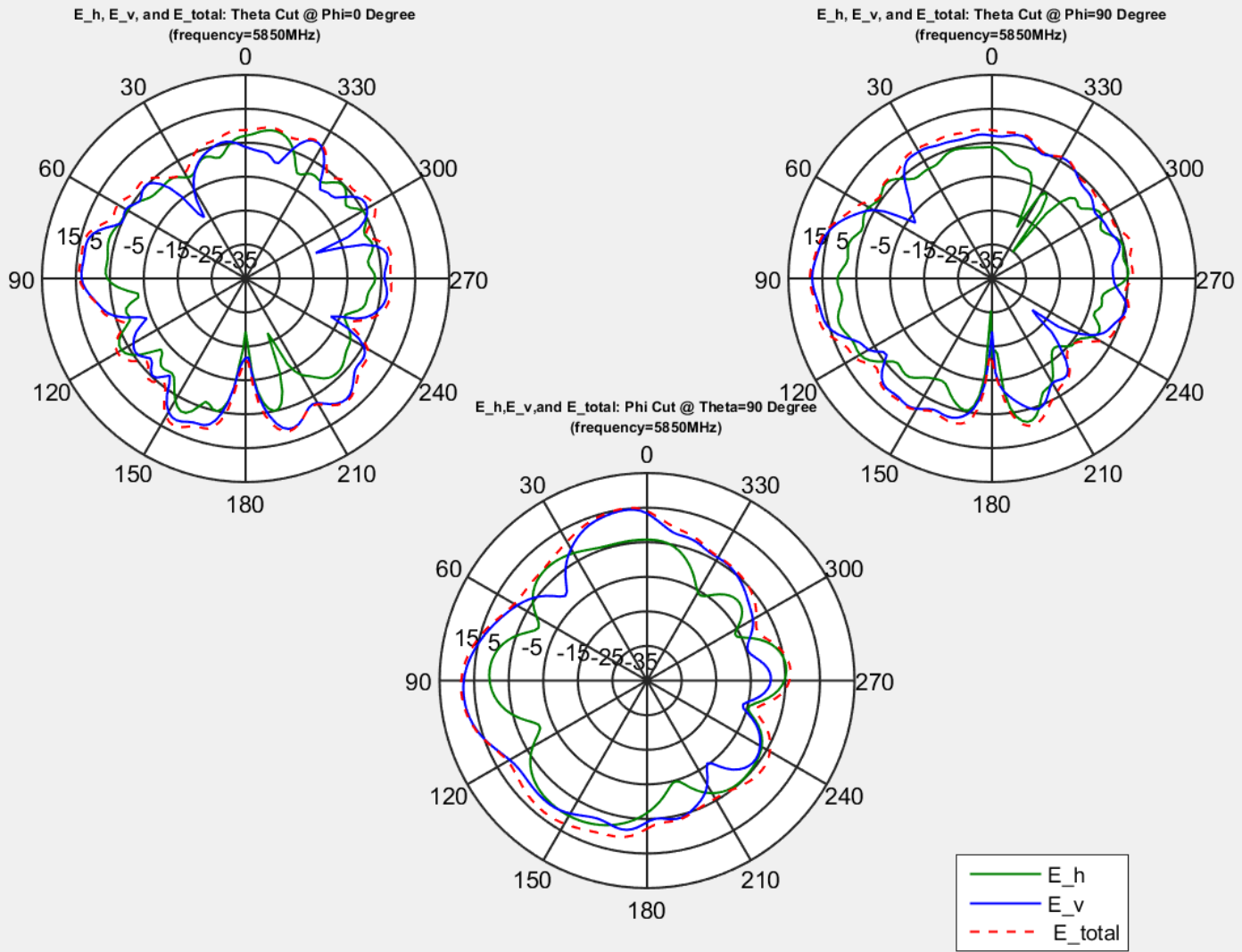
4. Radiation patterns (ant2@5150MHz)



4. Radiation patterns (ant2@5550MHz)



4. Radiation patterns (ant2@5850MHz)



5. Summary

1.测量数据如下:

S parameter

	5150	5500	5850
VSWR_ant1	1.12	1.25	1.72
VSWR_ant2	1.14	1.44	1.62
S21	-20.2	-23.0	-23.0

5. Summary

2. 测量数据如下:

Antenna PeakGain&Efficiency

Item	Frequency(MHz)	5150	5250	5350	5450	5550	5650	5750	5850
ant1	PeakGain(dBi)	9.85	9.97	9.62	9.95	10.91	10.77	10.43	10.15
	Efficiency(%)	73.89	75.83	69.40	73.34	80.19	79.26	81.58	81.28
ant2	PeakGain(dBi)	9.73	10.00	9.92	9.74	9.44	8.94	9.05	8.81
	Efficiency(%)	73.98	73.41	68.64	72.66	80.24	82.80	87.04	78.11

5. Summary

2. 测量数据如下:

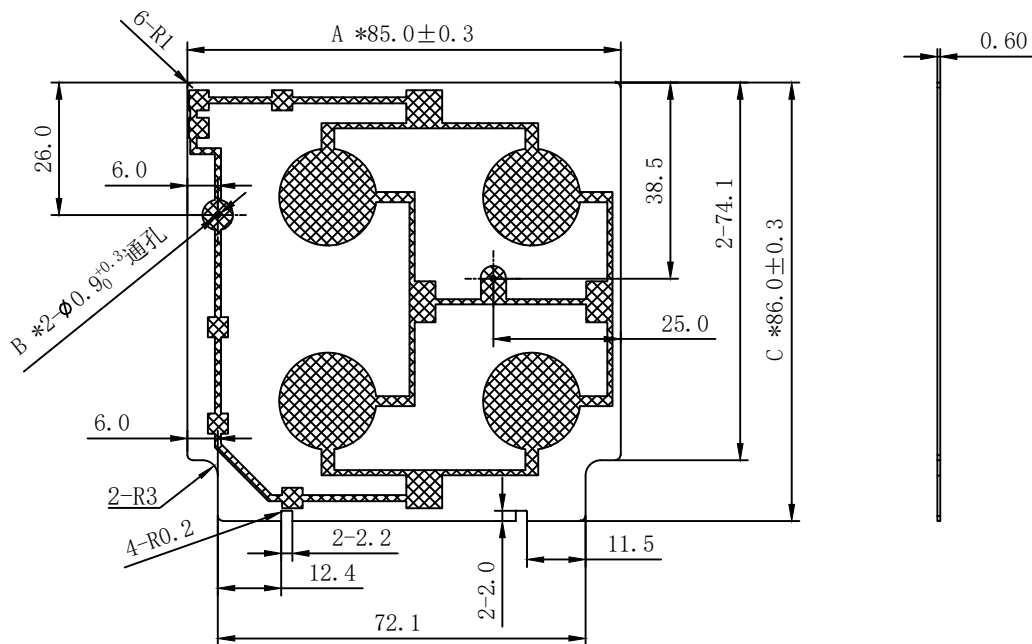
HPBW

Item	Frequency(MHz)	5150	5250	5350	5450	5550	5650	5750	5850
ant1	Phi90	38.09	38.35	38.47	37.92	36.53	36.92	41.38	41.03
	theta90	37.13	36.89	36.99	37.16	34.25	34.33	35.73	37.18
ant2	Phi90	32.75	30.93	31.35	32.87	35.22	35.70	36.53	35.71
	theta90	39.49	36.11	34.21	34.32	34.67	32.92	31.43	30.71

保 密 声 明

此图为泓林微电子（昆山）有限公司
技术机密资料，未得书面许可，不得泄露，违者必究

1	2	3	4	5	6	7	8
				版本	变更描述	变更人	制作/变更日期
				A	新制作	庄严	2022.08.29
				B			
				C			



☒ 覆铜区域，表面OSP处理

技术要求:

- 1、*为重点检验尺寸，其余未注公差尺寸依“一般要求”控制；
- 2、材质：FR4 GF-212，厚度0.6mm，板子为单面覆铜；
- 3、阴影部分为铜箔保留部分，表面OSP处理；
- 4、PCB材料符合ROHS2.0之要求。

泓林微电子（昆山）有限公司

第一视角	单位	mm	产品名称	Q-5159-09C0	设计	
一般要求:			成品料号	6N9A190	审核	
.X	±0.30		材质	FR4 GF-212	批准	
.XX	±0.25		数量	1PCS	图号	-
ANGULAR	±1°		处理方式	OSP	版本	A