Antenna Report

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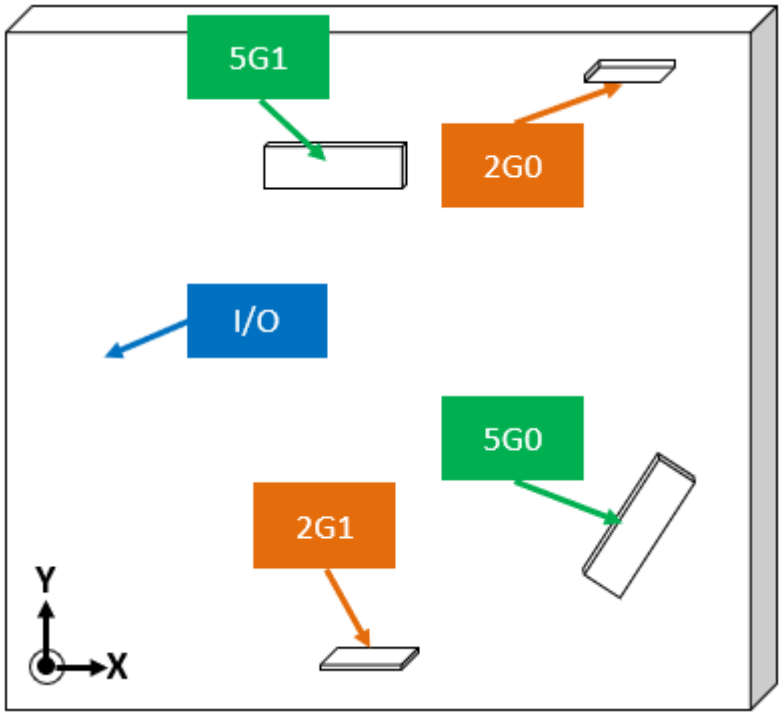
1. Antenna Information



Designator	HB PN	Frequency Range (MHz)	Antenna Type	Cable Length (mm)
2G0	290-50304	2400 -2500	PCB ANTENNA	194
2G1	290-50305	2400 -2500	PCB ANTENNA	160
5G0	290-50302	5150 - 5850	Metal ANTENNA	103
5G1	290-50303	5150 - 5850	Metal ANTENNA	165

1.1. Antenna Mode and Brand

Ant.	Band	Brand	Mode Name	Antenna Type	Connector
2G0	WLAN 2G	HB	290-50304	Dipole	I-PEX
2G1	WLAN 2G	HB	290-50305	Dipole	I-PEX
5G0	WLAN 5G	HB	290-50302	PIFA	I-PEX
5G1	WLAN 5G	HB	290-50303	PIFA	I-PEX

Antenna Brand and address: Hong-Bo , No.120, Sec.2, Fuxing 3rd Rd., Zhubei City, Hsinchu County 30273, Taiwan

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2. Measurement setup info. & test method, Test Procedure

2.1. Antenna Configuration

Model Name: LCS5

Address: No.120, Sec.2, Fuxing 3rd Rd., Zhubei City, Hsinchu County 30273, Taiwan

Test personal name: Jack Huang

Test equipment: MVG SG24 chamber

Test software: Wave Studio 22.5.6

Test description: DUT place in SG24 chamber, and run the antenna passive measurement

2.2. Test equipment list

Instrument	Brand	Model No.	Characteristics	Calibration Date	Next Calibration Date
SATIMO OTA chamber	Microwave Vision Group	SG24 chamber	400 MHz - 8500 MHz	Dec.23 ,2023	Jan.23 ,2024
Measurement software	Microwave Vision Group	Wave Studio 22.5.6	N/A	N/A	N/A

2.3. Test Method

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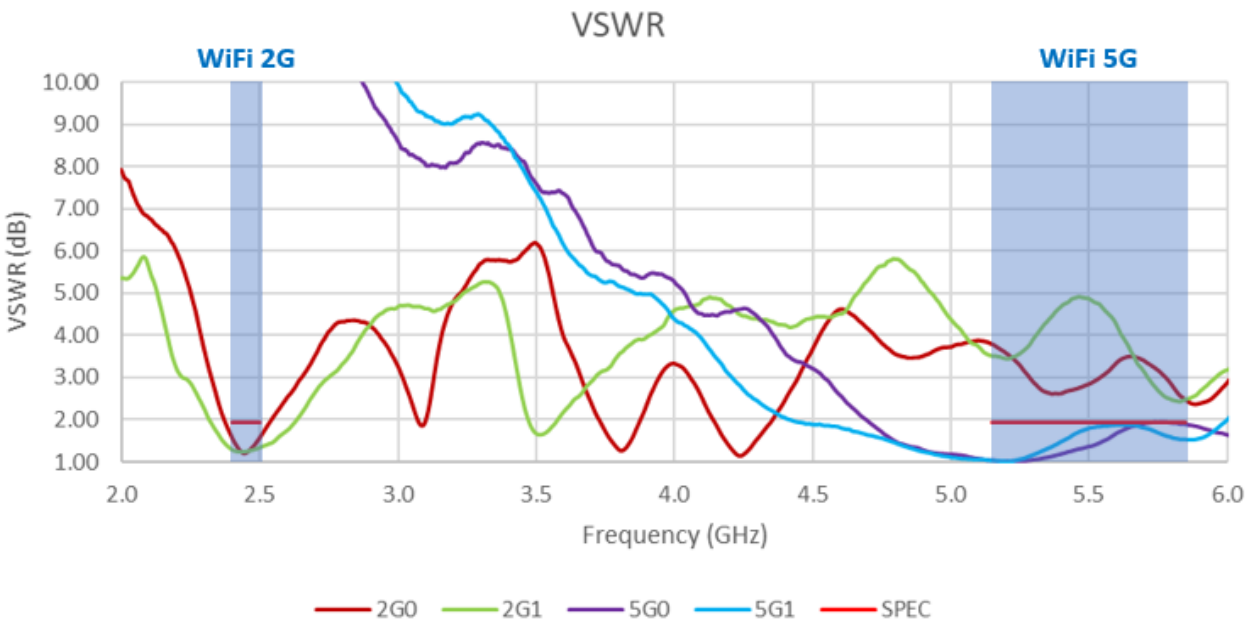
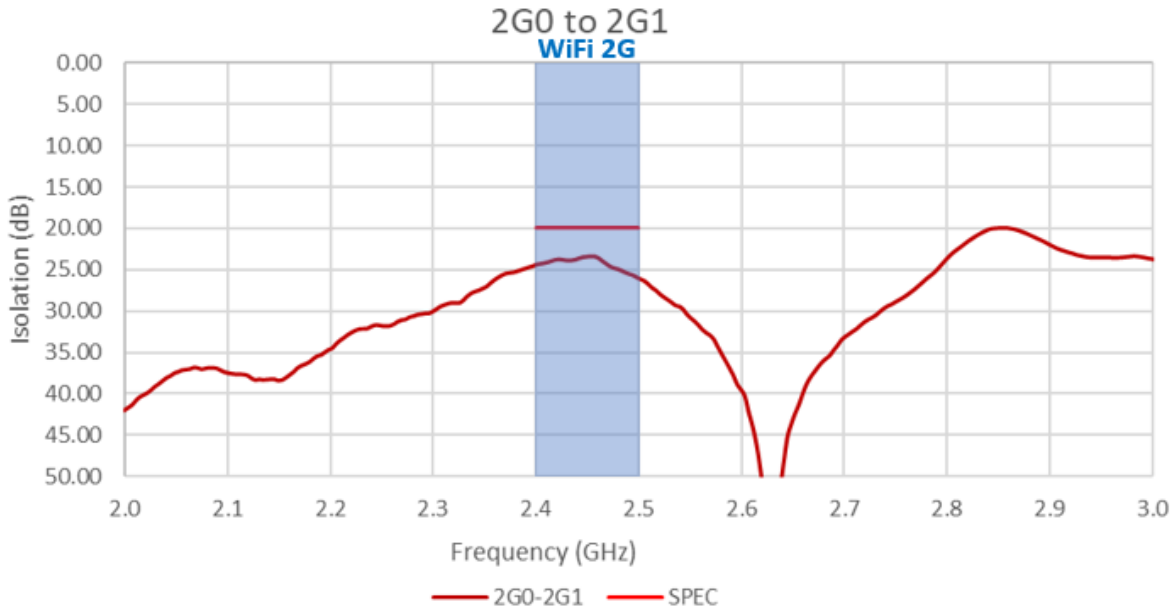
3. Test Result

3.1. VSWR & ISO





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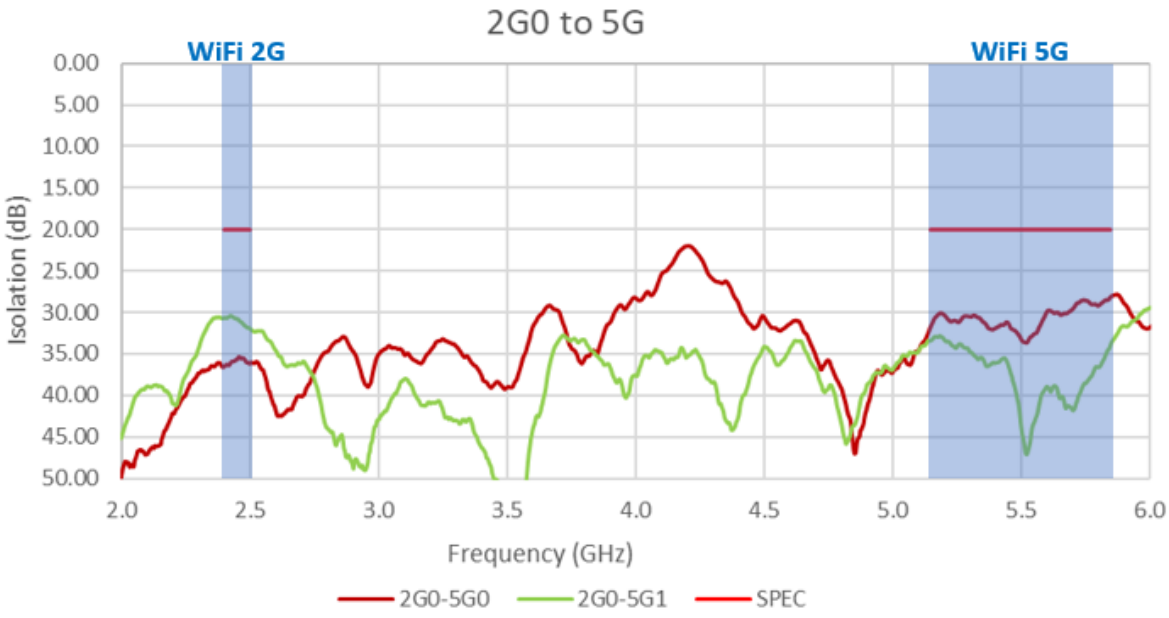

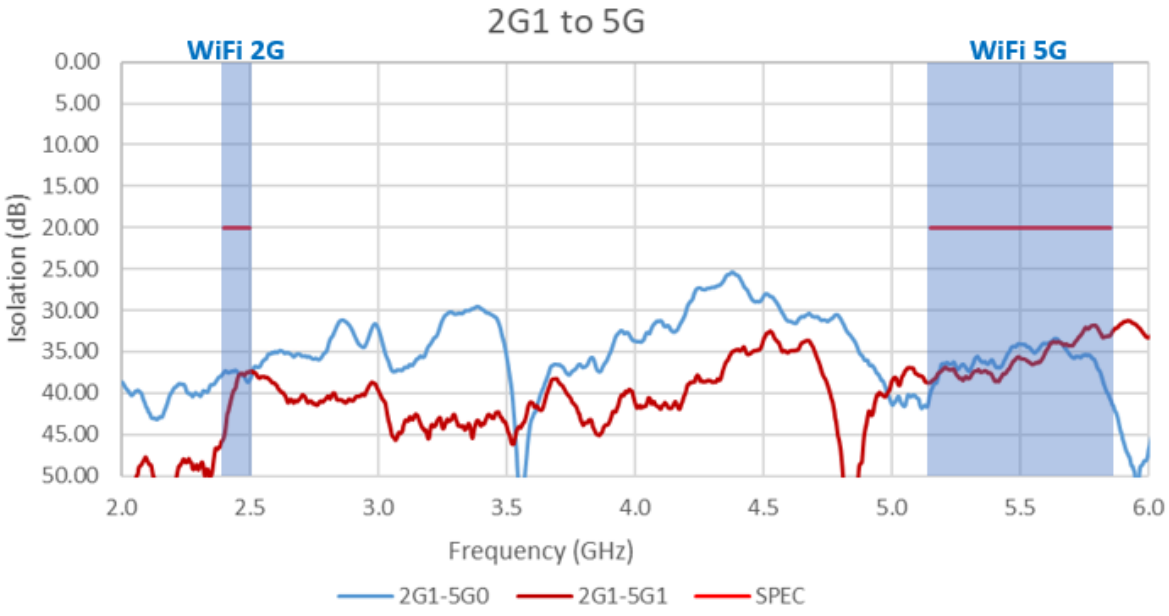

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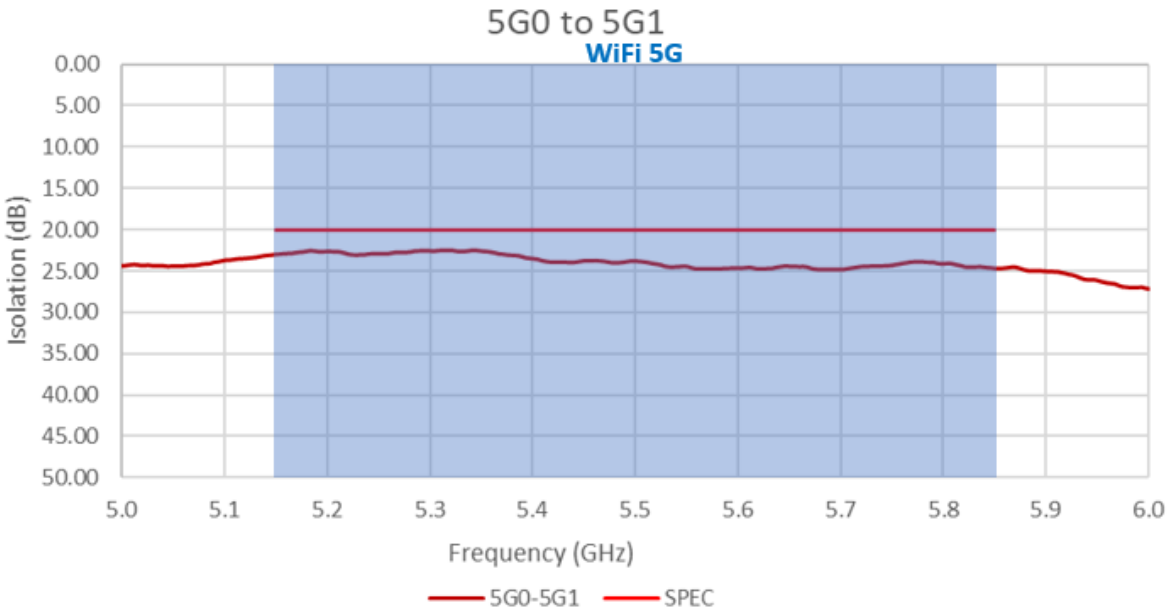

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3.2. Antenna gain

Ant	item	2400-2500 MHz
2G0	Peak Gain	1.7
	Peak Gain @	Theta= 57 ; Phi= 87
2G1	Peak Gain	2.9
	Peak Gain @	Theta= -78 ; Phi= 99

Ant	item	Band1 (5150-5250MHz)	Band2 (5250-5350MHz)	Band3 (5470-5725MHz)	Band4 (5725-5850MHz)
5G0	Peak Gain	2.5	2.9	4.0	3.6
	Peak Gain @	Theta= 72 ; Phi= 81	Theta= 66 ; Phi= 138	Theta= 63 ; Phi= 141	Theta= 81 ; Phi= 84
5G1	Peak Gain	3.3	4.0	4.4	4.9
	Peak Gain @	Theta= -60 ; Phi= 111	Theta= -63 ; Phi= 111	Theta= -57 ; Phi= 93	Theta= -57 ; Phi= 99

Above Peak Gain= on board antenna peak gain-path loss+
Chamber's receiving RX peak gain.

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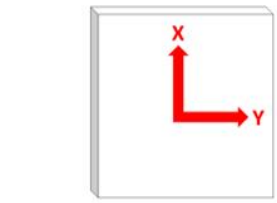
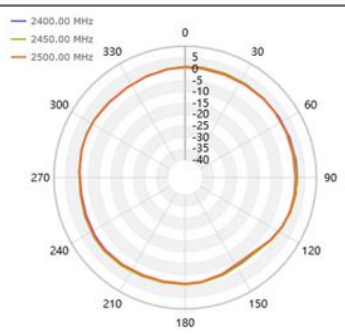
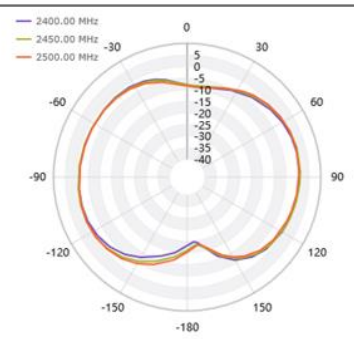
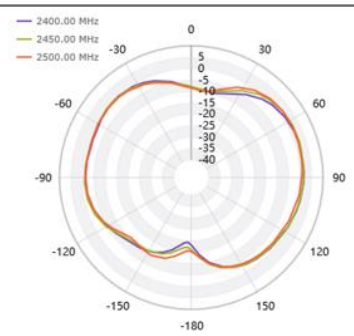
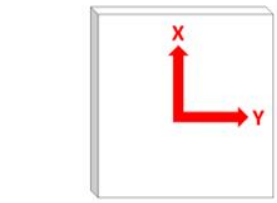
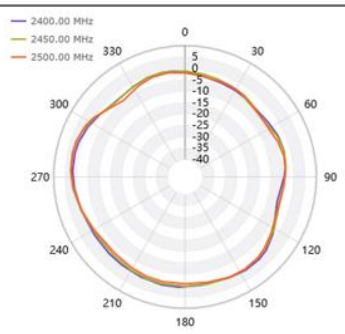
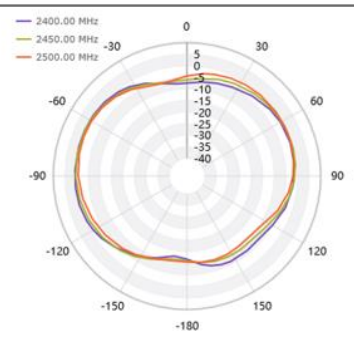
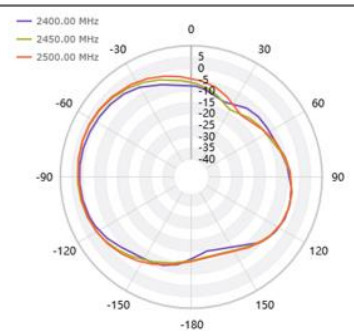
3.3. Radiation Pattern

2G0		
		
		

2G1		
		
		

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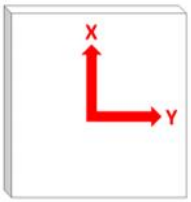
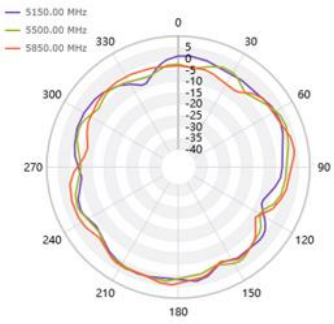
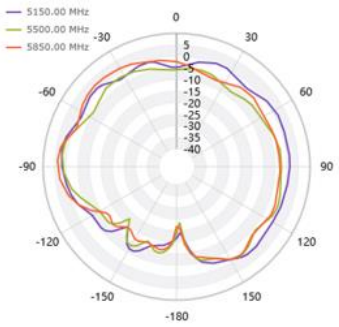
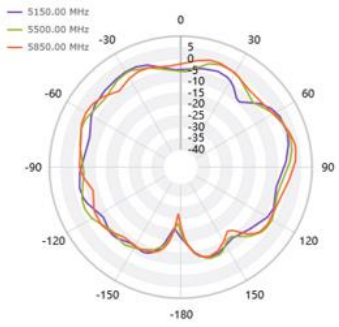
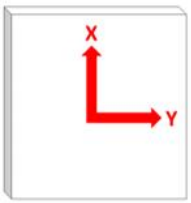
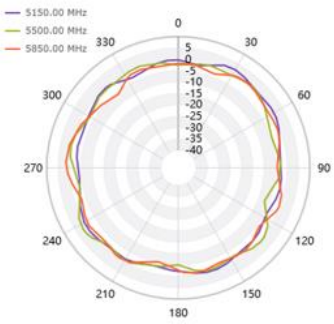
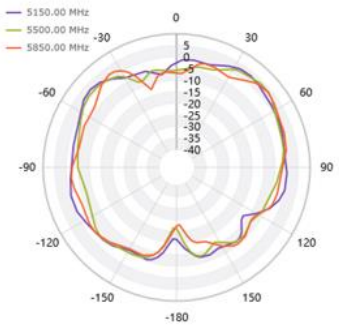
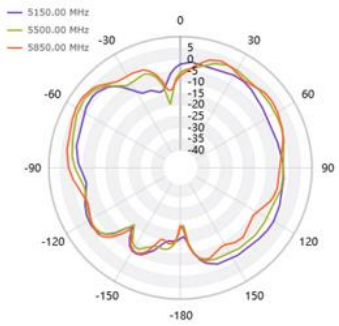
5G0		
		
		

5G1		
		
		

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