



Antenna Test Report

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Approval : Chen Guoqiang

Date : 2025 / 05 / 12

1. Device Profile

Device

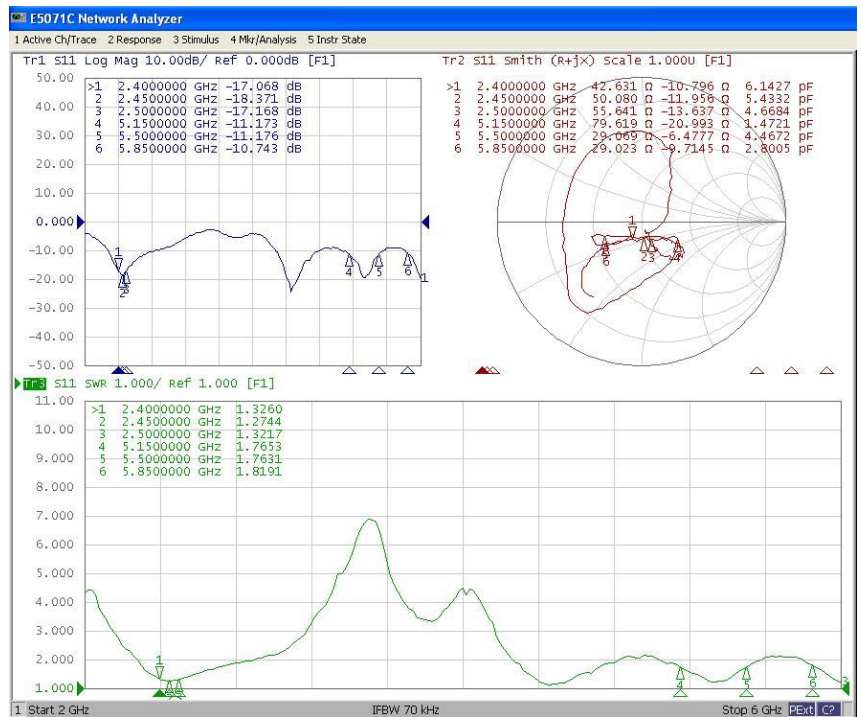


2. *WiFi1 Antenna Test*

***WiFi1
Antenna***

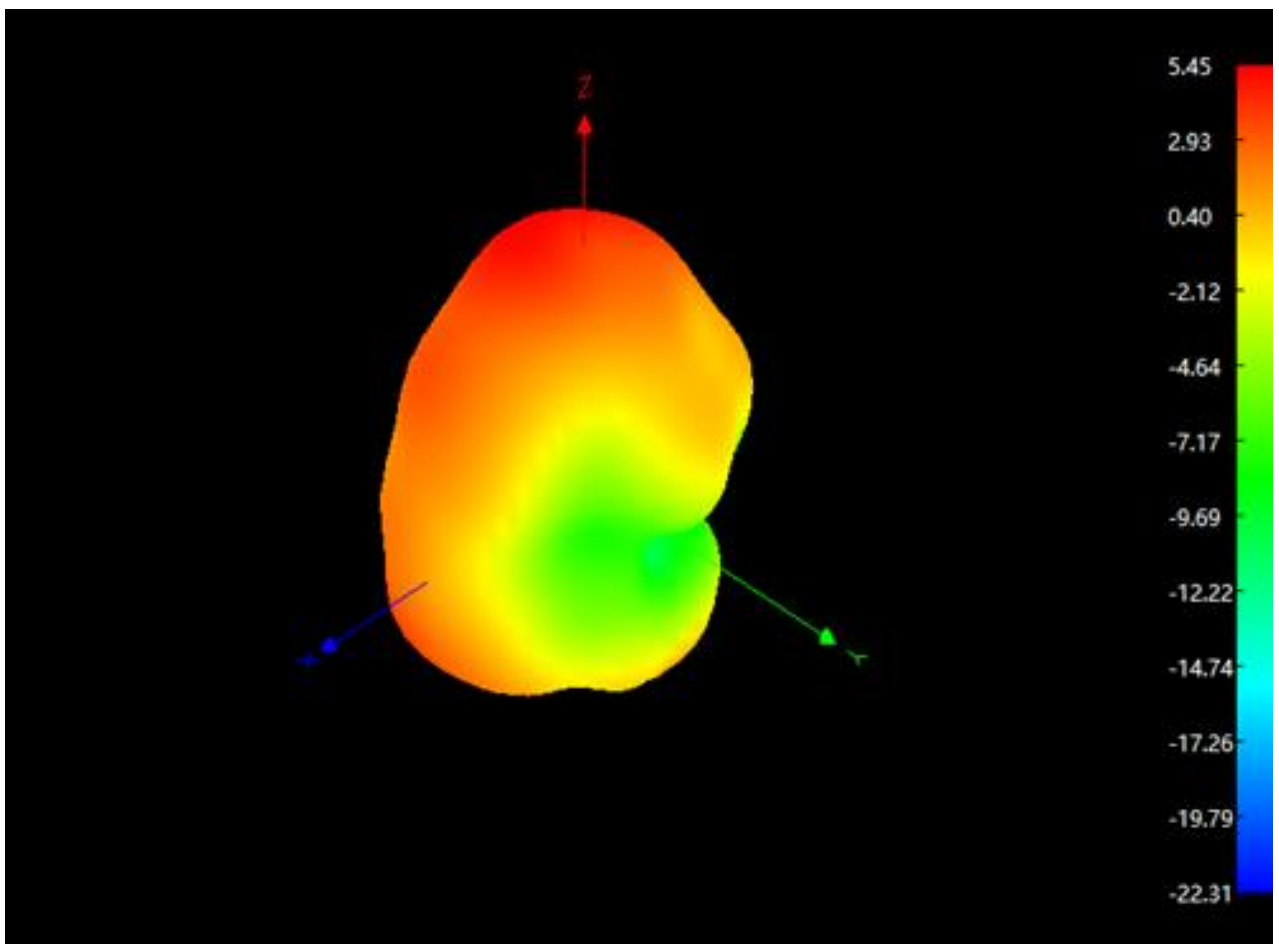


Agilent E5071C S Parameter Test // WiFi1 Antenna

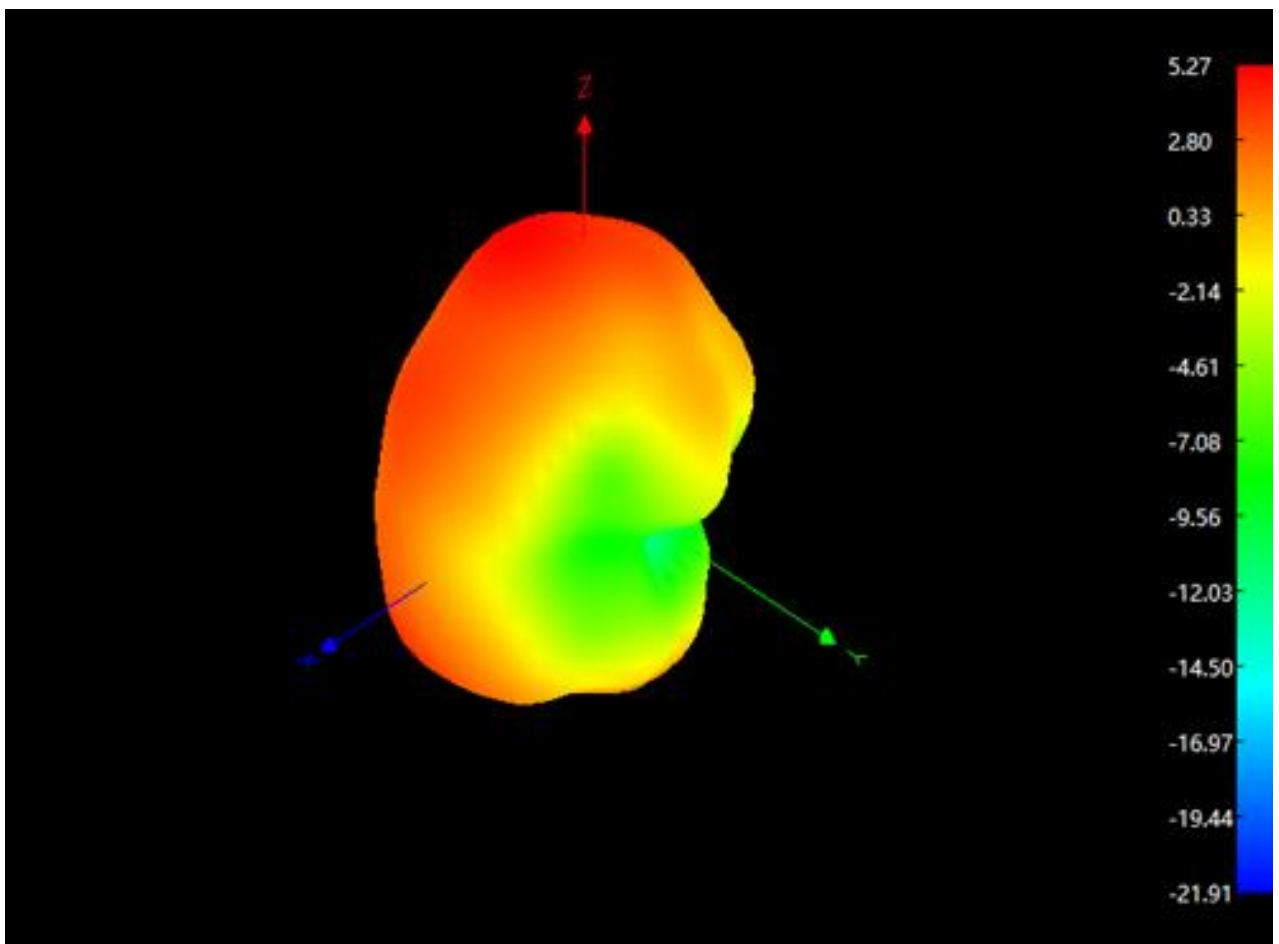


Passive Test For WiFi1 Antenna(2.4G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	66.1	-1.8	5.5
2410	67.0	-1.7	5.5
2420	67.3	-1.7	5.3
2430	68.5	-1.6	5.3
2440	69.1	-1.6	5.2
2450	70.7	-1.5	5.3
2460	68.2	-1.7	5.2
2470	70.3	-1.5	5.5
2480	68.4	-1.7	5.4
2490	68.7	-1.6	5.5
2500	64.2	-1.9	5.1

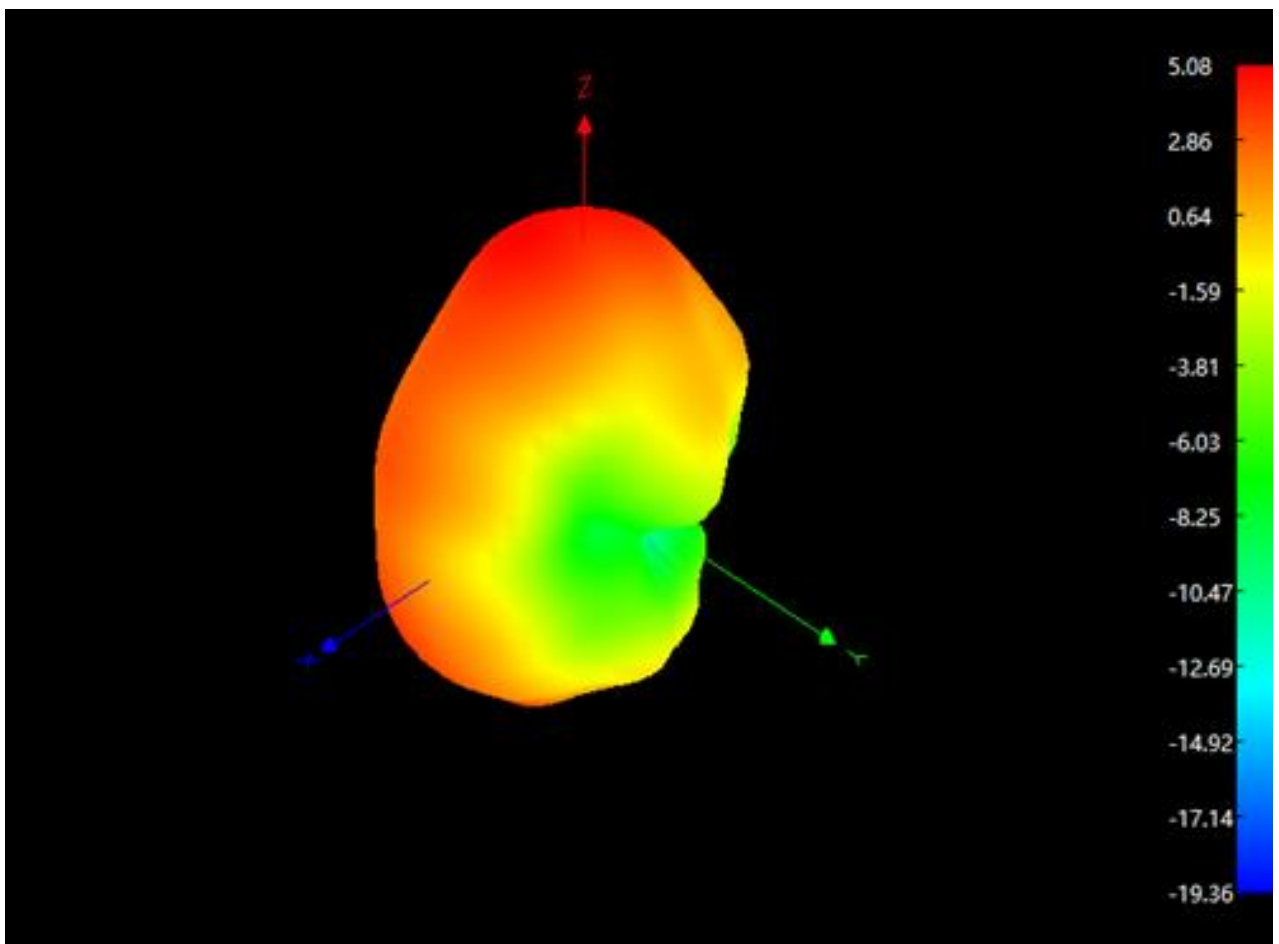
Radiation Pattern For WiFi1 Antenna (2400MHz)



Radiation Pattern For WiFi1 Antenna (2450MHz)

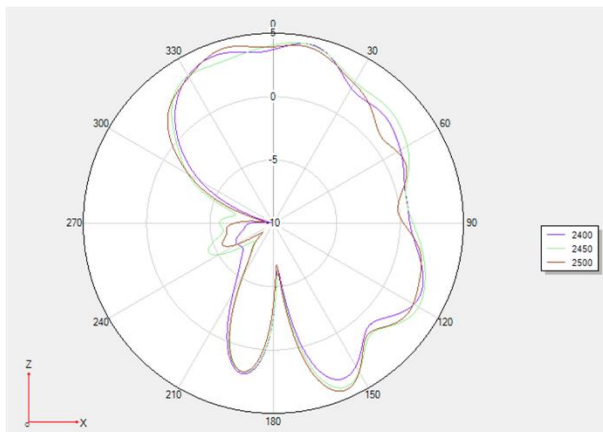


Radiation Pattern For WiFi1 Antenna (2500MHz)

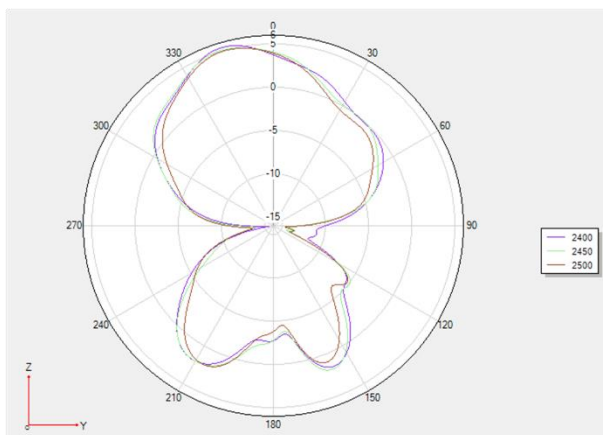


Radiation Pattern For WiFi1 Antenna

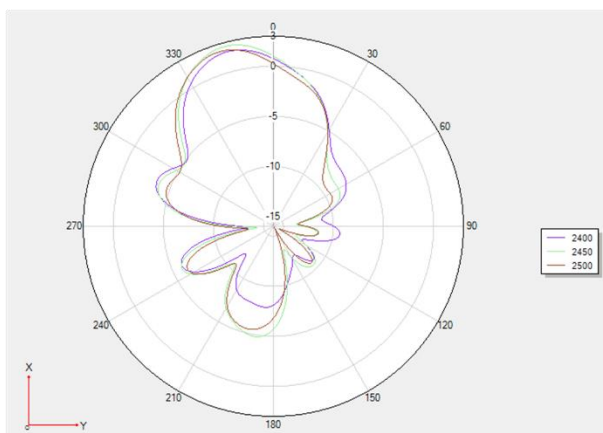
Phi 0°



Phi 90°

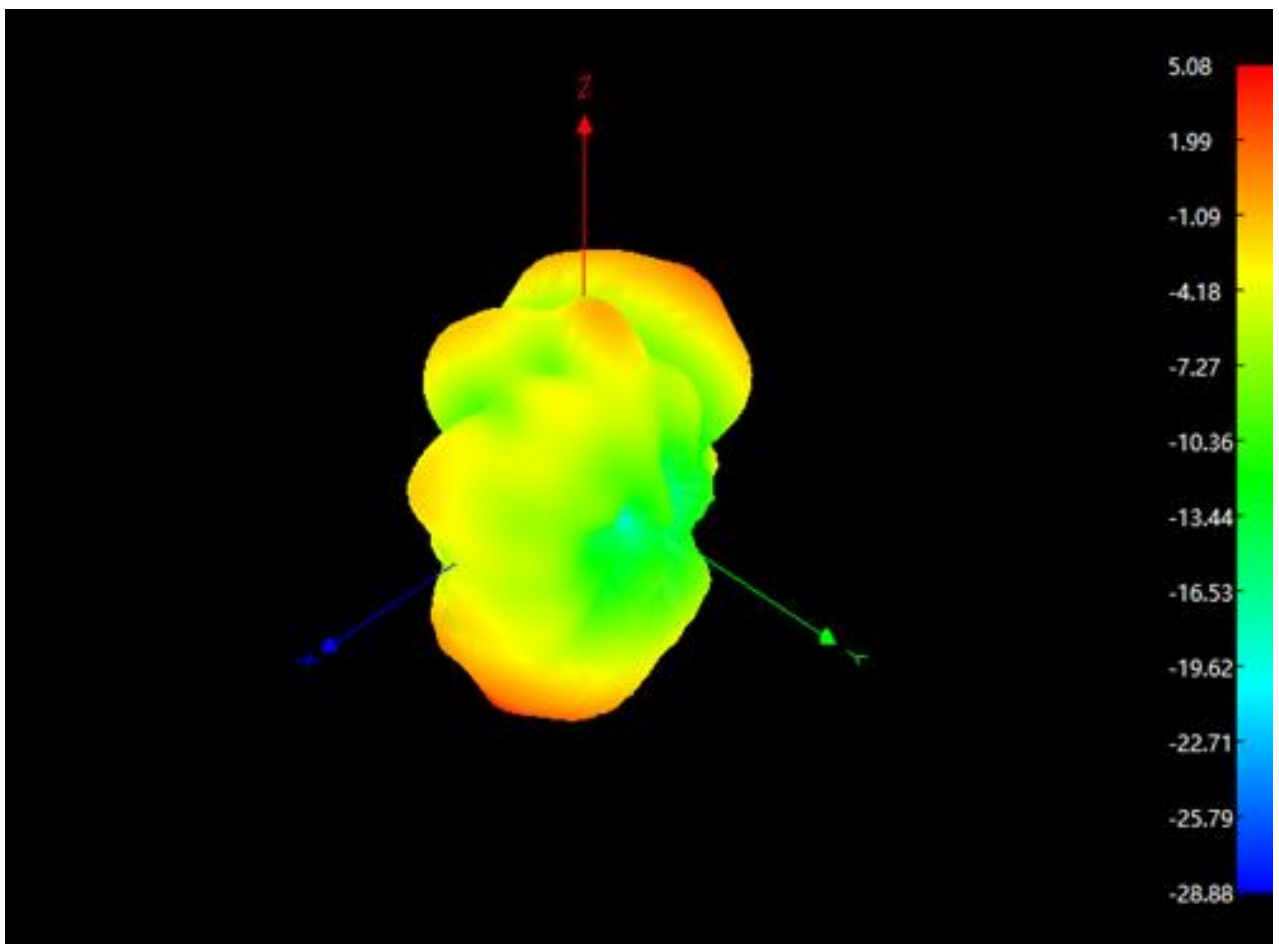


Theta 90°

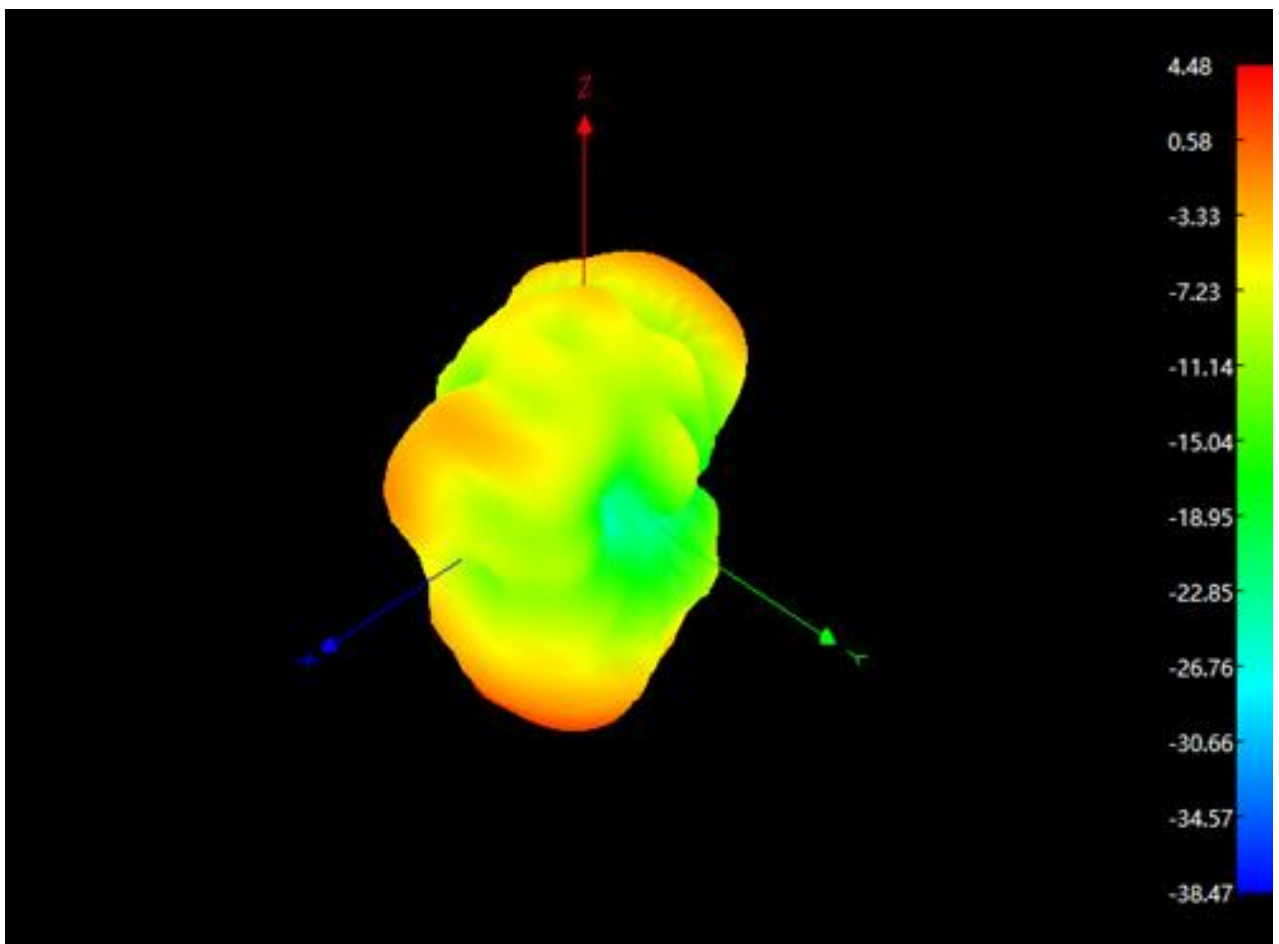


Passive Test For WiFi1 Antenna(5.8G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	64.1	-1.9	5.1
5200	66.1	-1.8	5.2
5250	64.1	-1.9	5.0
5300	64.3	-1.9	4.8
5350	63.2	-2.0	4.7
5400	69.5	-1.6	5.3
5450	66.7	-1.8	5.0
5500	59.8	-2.2	4.5
5550	69.2	-1.6	5.3
5600	67.3	-1.7	5.0
5650	58.1	-2.4	4.4
5700	62.1	-2.1	4.6
5750	66.5	-1.8	4.8
5800	57.5	-2.4	4.4
5850	58.9	-2.3	4.6

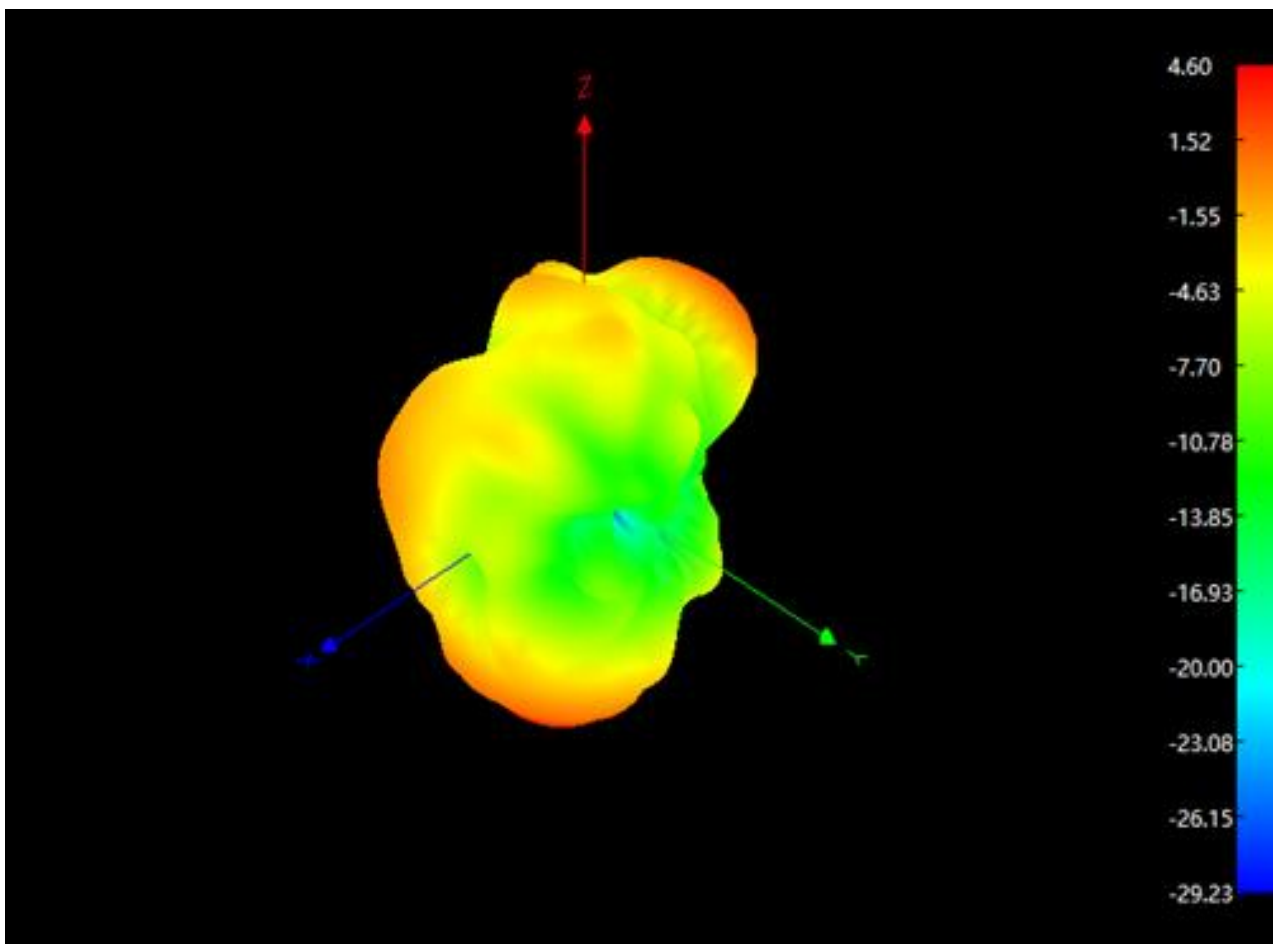
Radiation Pattern For WiFi1 Antenna (5150MHz)



Radiation Pattern For WiFi1 Antenna (5500MHz)

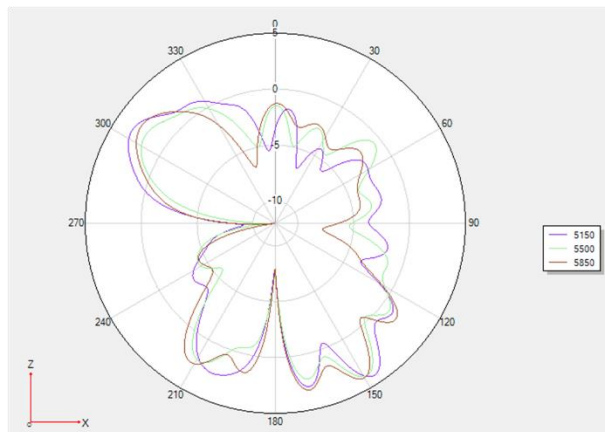


Radiation Pattern For WiFi1 Antenna (5850MHz)

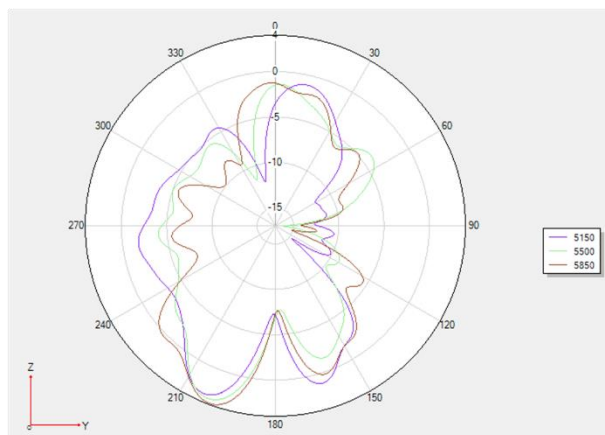


Radiation Pattern For WiFi1 Antenna

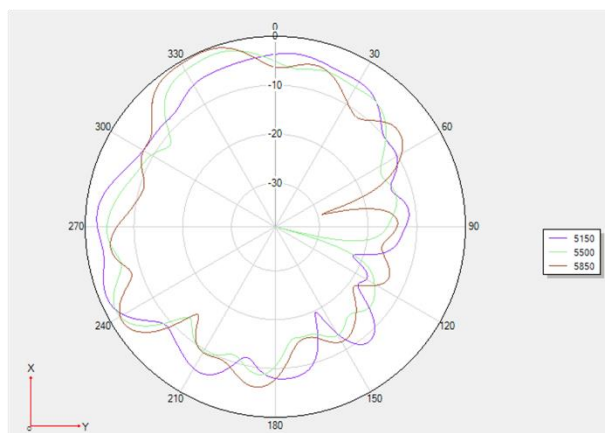
Phi 0°



Phi 90°



Theta 90°

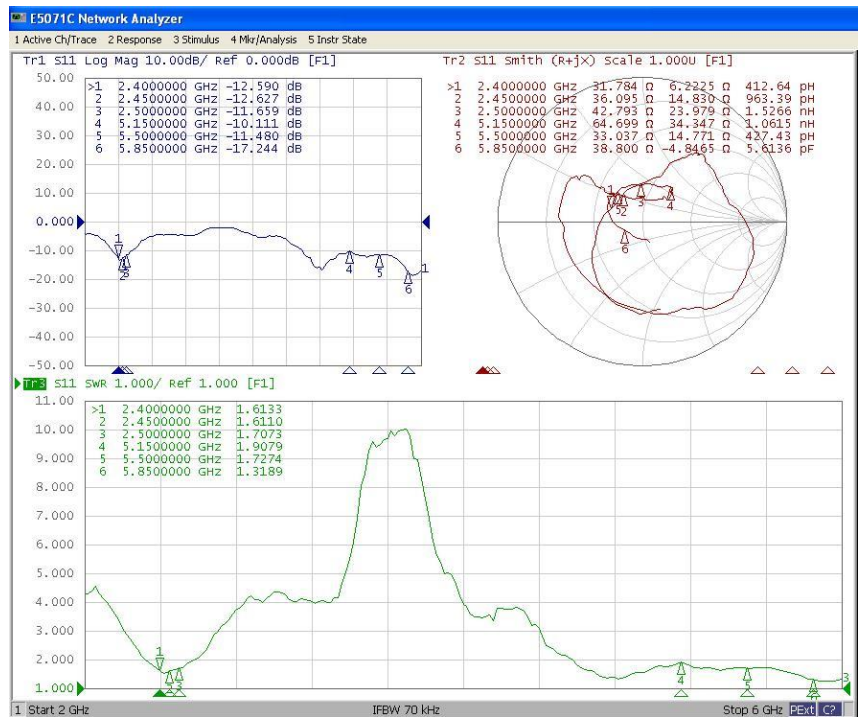


3. *WiFi2 Antenna Test*

***WiFi2
Antenna***

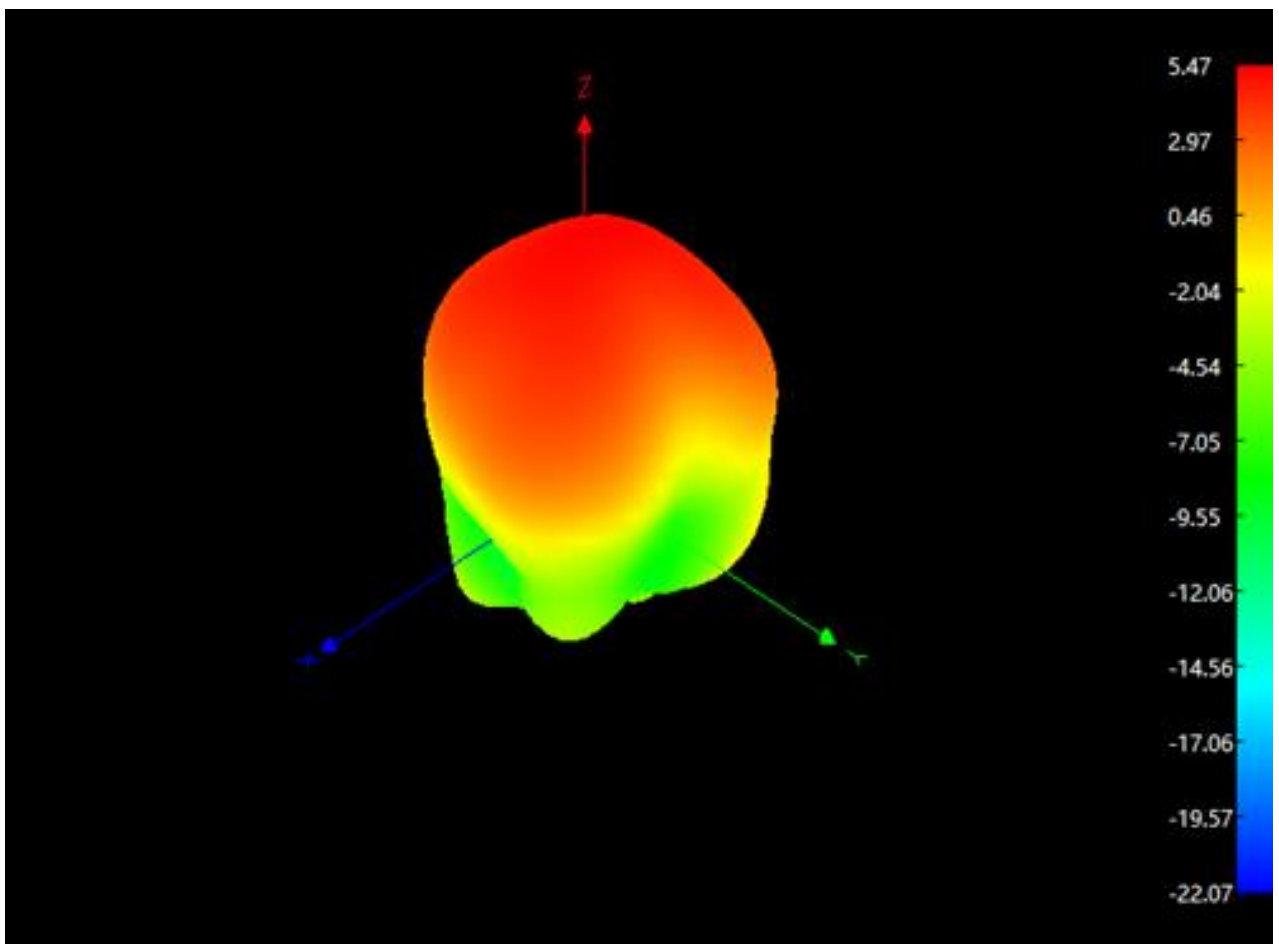


Agilent E5071C S Parameter Test // WiFi2 Antenna

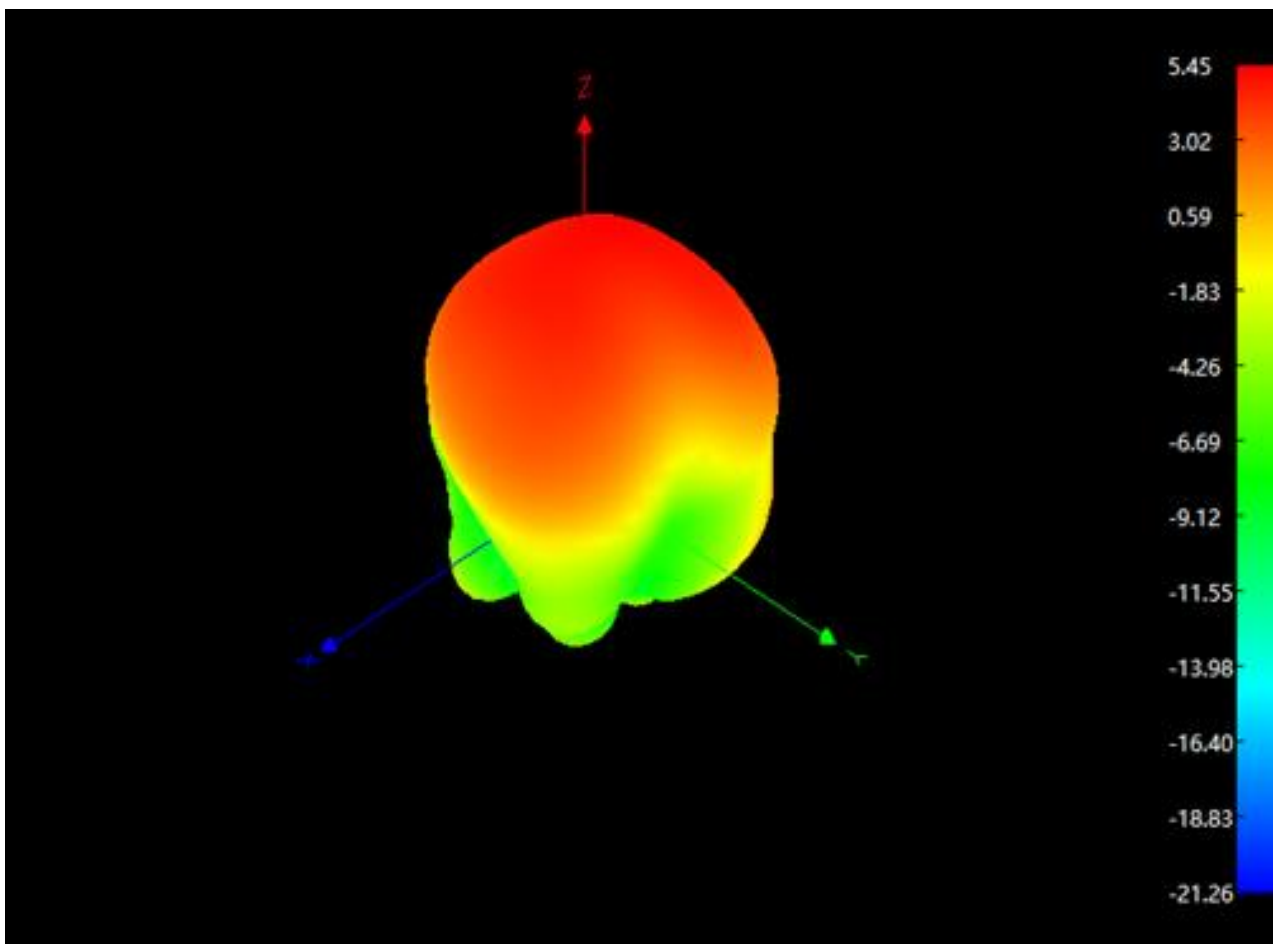


Passive Test For WiFi2 Antenna(2.4G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	64.0	-1.9	5.5
2410	64.4	-1.9	5.5
2420	65.7	-1.8	5.6
2430	65.6	-1.8	5.6
2440	64.4	-1.9	5.5
2450	65.6	-1.8	5.5
2460	64.2	-1.9	5.3
2470	63.6	-2.0	5.2
2480	62.8	-2.0	5.0
2490	61.5	-2.1	4.9
2500	60.1	-2.2	4.8

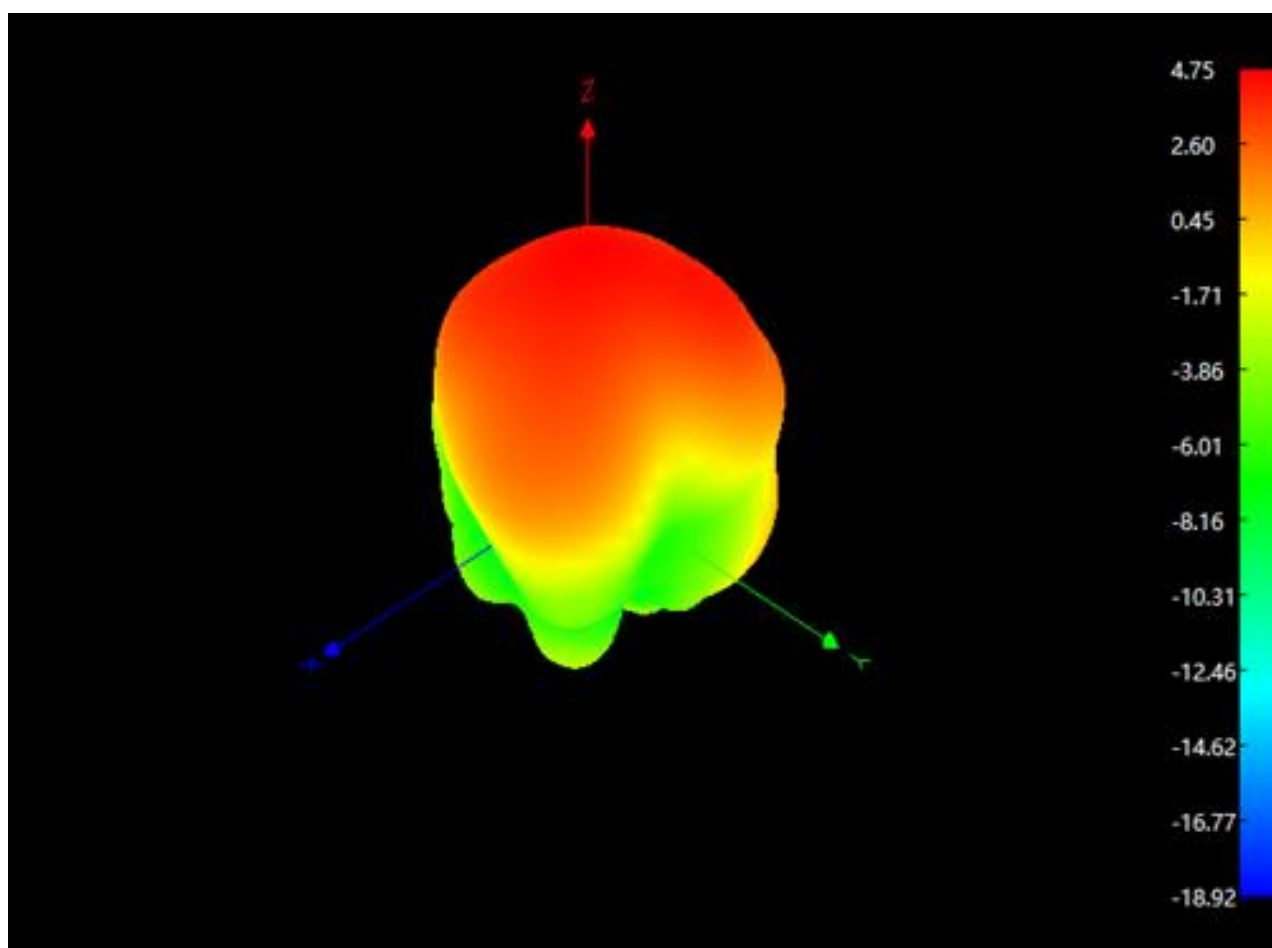
Radiation Pattern For WiFi2 Antenna (2400MHz)



Radiation Pattern For WiFi2 Antenna (2450MHz)

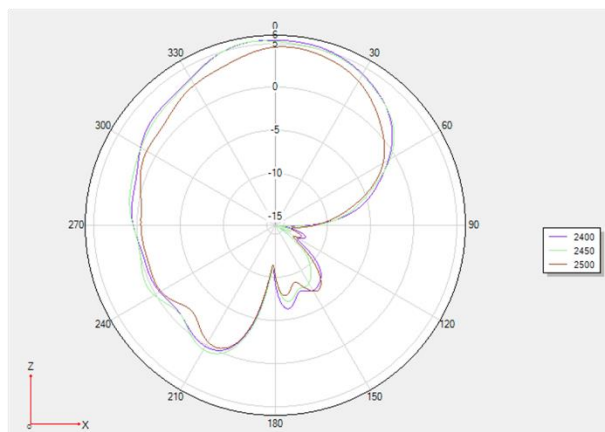


Radiation Pattern For WiFi2 Antenna (2500MHz)

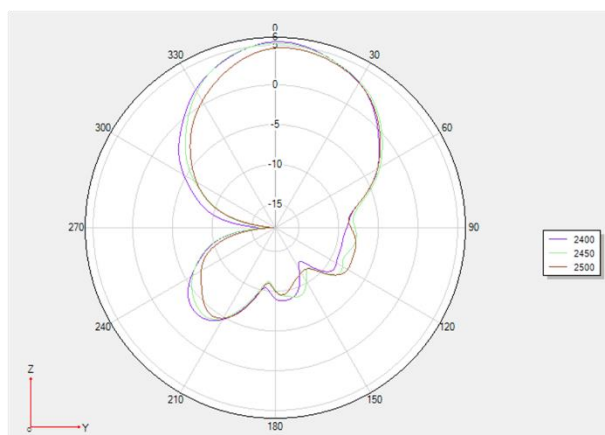


Radiation Pattern For WiFi2 Antenna

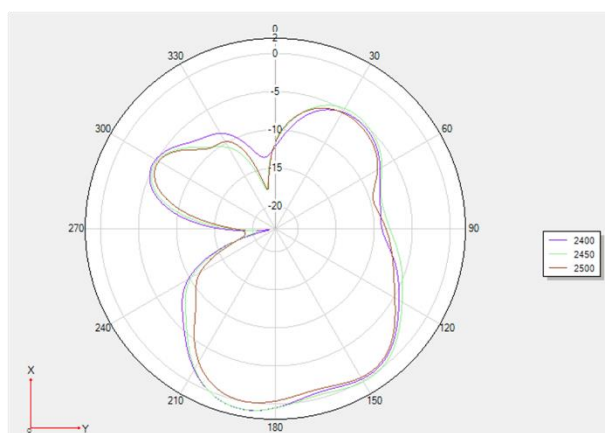
Phi 0°



Phi 90°

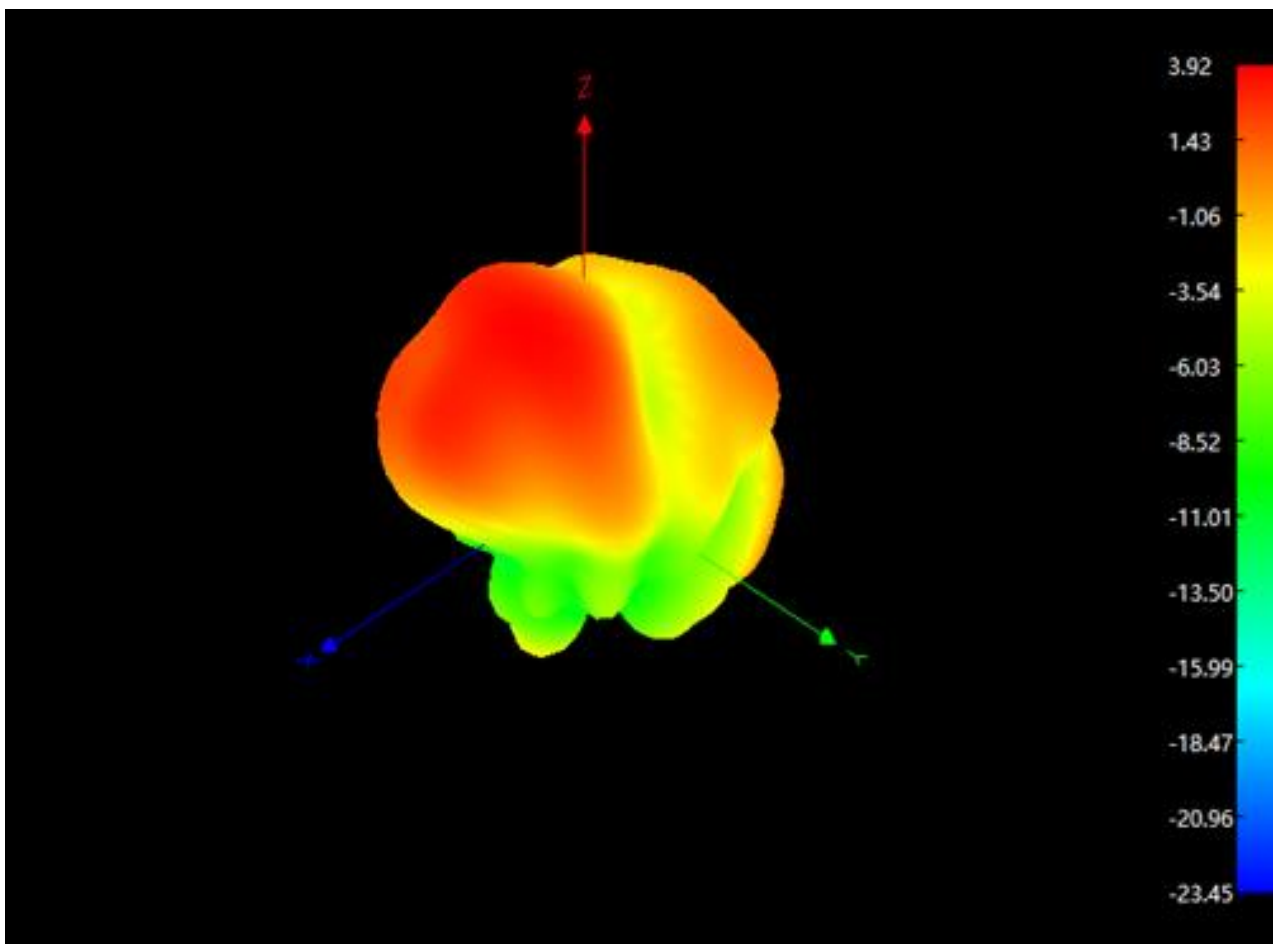


Theta 90°

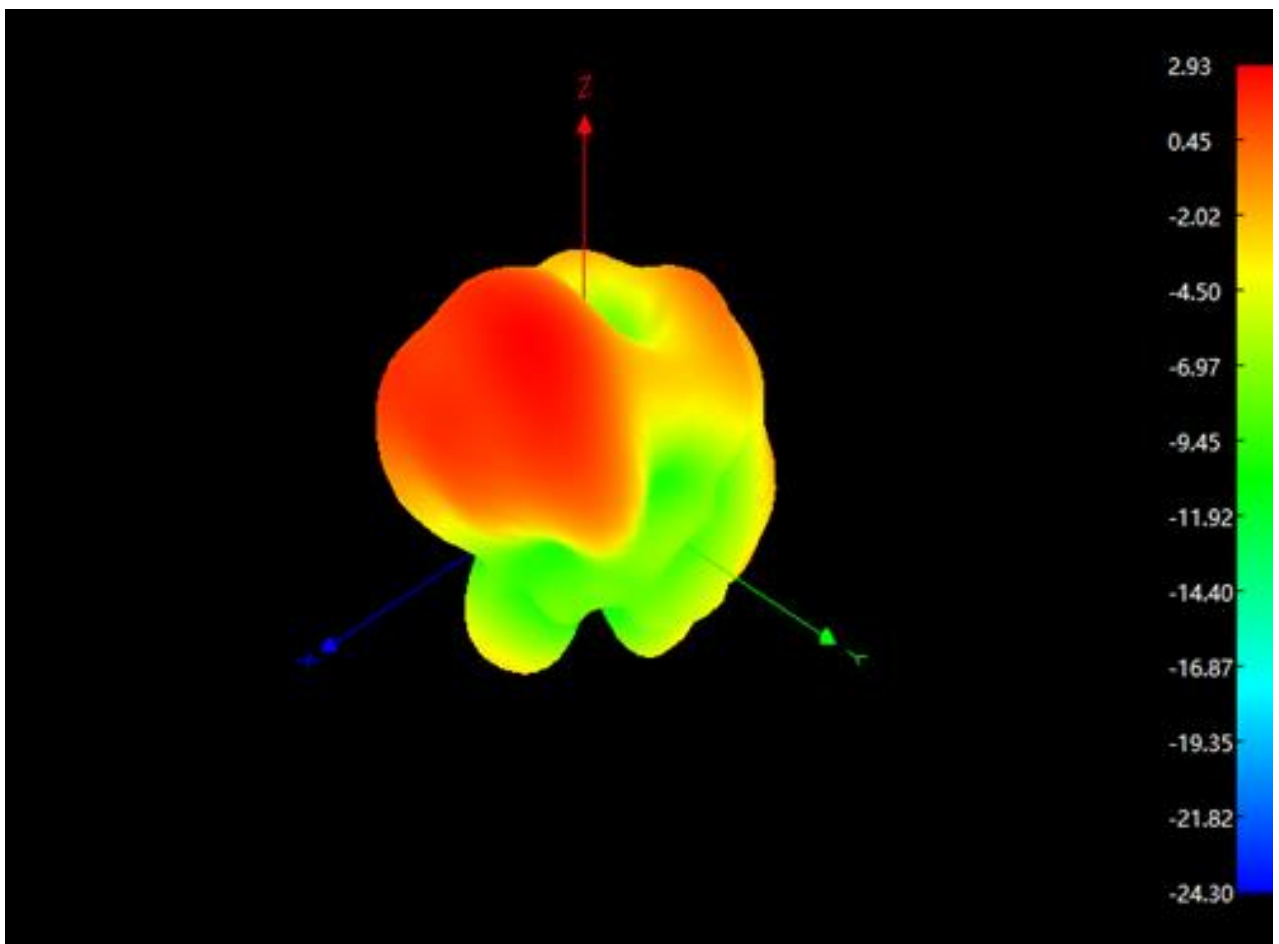


Passive Test For WiFi2 Antenna(5.8G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	64.3	-1.9	3.9
5200	66.5	-1.8	4.2
5250	63.4	-2.0	4.2
5300	61.2	-2.1	3.4
5350	61.7	-2.1	3.1
5400	66.5	-1.8	2.9
5450	64.7	-1.9	2.9
5500	60.3	-2.2	2.9
5550	63.3	-2.0	3.5
5600	61.8	-2.1	3.6
5650	60.0	-2.2	3.3
5700	61.8	-2.1	3.6
5750	67.6	-1.7	4.0
5800	61.0	-2.2	3.8
5850	61.0	-2.2	3.8

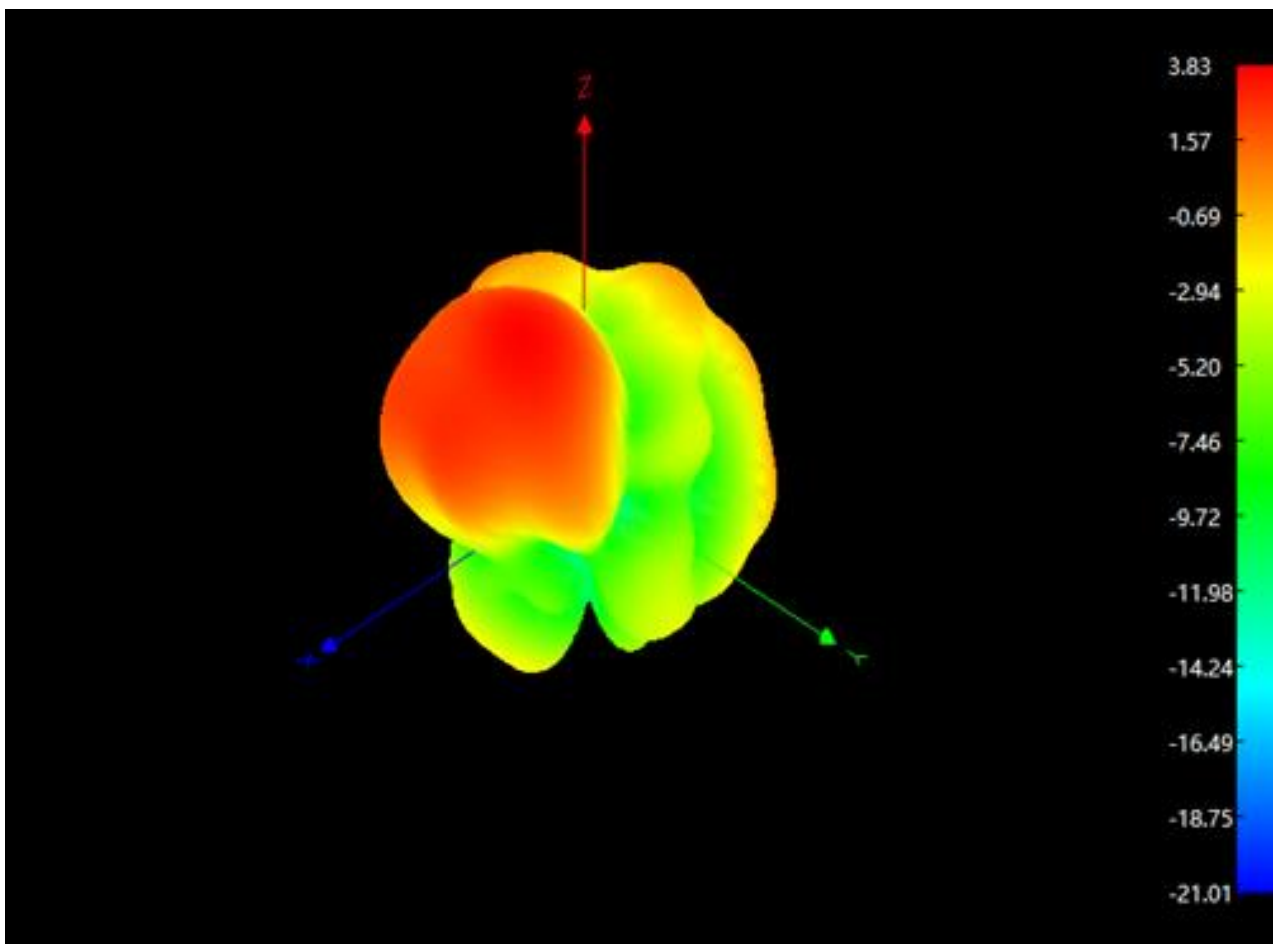
Radiation Pattern For WiFi2 Antenna (5150MHz)



Radiation Pattern For WiFi2 Antenna (5500MHz)

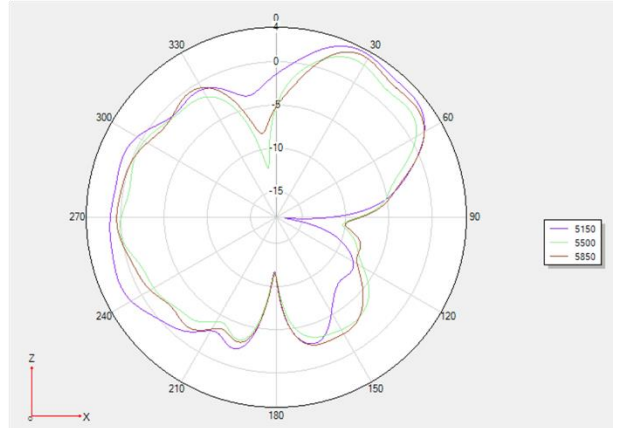


Radiation Pattern For WiFi2 Antenna (5850MHz)

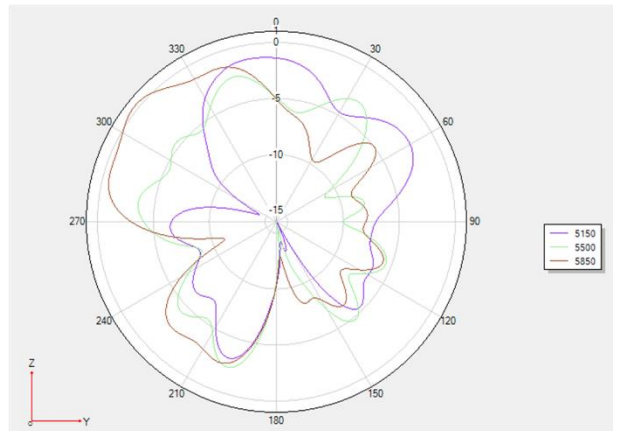


Radiation Pattern For WiFi2 Antenna

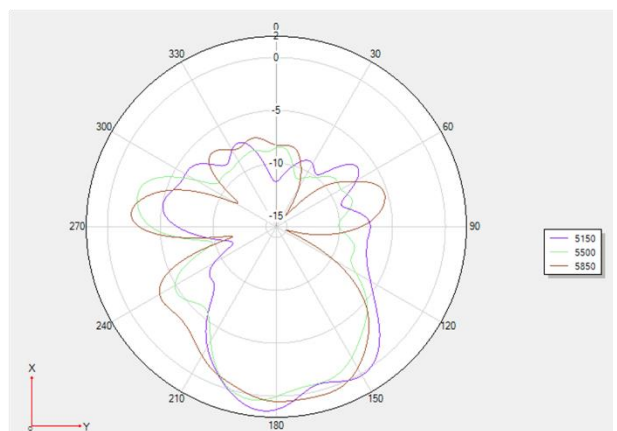
Phi 0°



Phi 90°



Theta 90°



4. Antenna Active Test

Active Test For WiFi Antenna							
Band	Channel	Data Rate	TRP	EIRP	Data Rate	TIS	EIS
WIFI 2.4G 802.11b	1	11Mbps	20.2	26.7	11Mbps	-79.4	-84.9
	6		21.2	27.8		-79.0	-85.0
	11		21.9	30.9		-80.8	-86.3
WIFI 2.4G 802.11g	1	6Mbps	20.3	27.6	54Mbps	-67.3	-75.2
	6		20.4	27.7		-67.3	-75.3
	1		20.7	28.2		-67.5	-75.5
WIFI 5G 802.11a	36	6Mbps	19.3	26.3	54Mbps	-69.9	-76.8
	149		20.0	25.5		-73.1	-81.6
	165		20.1	25.7		-73.2	-81.8

5. Assembly Picture

