

Antenna Datasheet

Product OC: Y0RGH0CA2DA

Version: 1.0

Date: 2025-05-07

Product Name: External Wi-Fi Antenna

Key Features:

Frequency Band: 2400–2500 MHz, 5150–5850 MHz

Dimensions: 164.79 mm × 23.79 mm × 21.05 mm

Efficiency: Up to 73 %

RoHS Compliant

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1 Specification

Test Condition: Assembled in test device

1.1. Electrical

Electrical		
Frequency Range	2.4G	2400–2500 MHz
	5G	5150–5850 MHz
Impedance	2.4G	50 Ω
	5G	50 Ω
Polarization	2.4G	Linear
	5G	Linear
Radiation Pattern	2.4G	Omni-directional
	5G	Omni-directional
VSWR	2.4G	≤ 1.6
	5G	≤ 1.5
Peak Gain	2.4G	3.5 dBi
	5G	4.9 dBi

1.2. Mechanical & Environmental

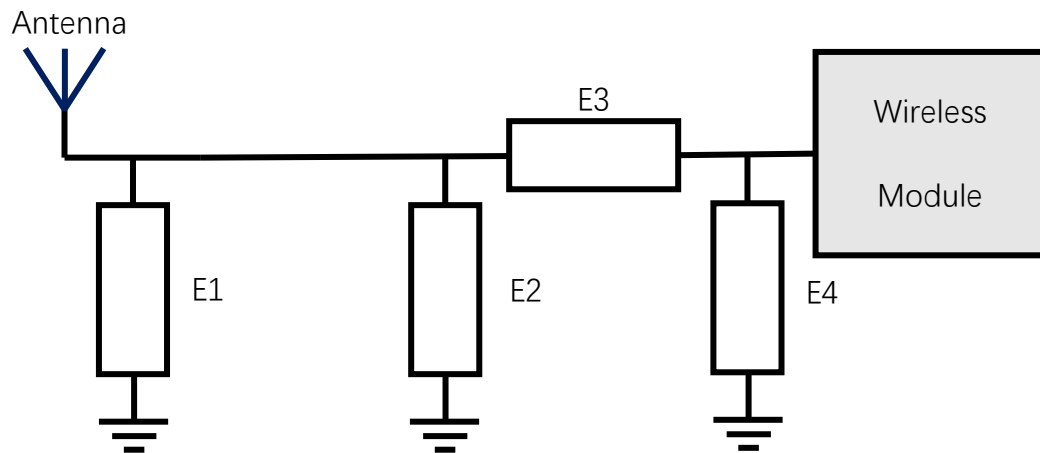
Mechanical	
Antenna Dimensions	164.79 mm × 23.79 mm × 21.05 mm
Material & Color	ABS & Blue-gray

Mounting Type	5.0G	Φ 1.37 & Blue & 290 mm
	2.4G	Φ 1.37 & Red & 150 mm
Connector Type		RF1 & ETC
Mounting Type		Terminal
Weight		Typ. 24.9 g
Environmental		
Operation Temperature		-20 °C to +70 °C
Storage Temperature		-20 °C to +70 °C
RoHS Compliant		Yes

1.3. Antenna Assembly

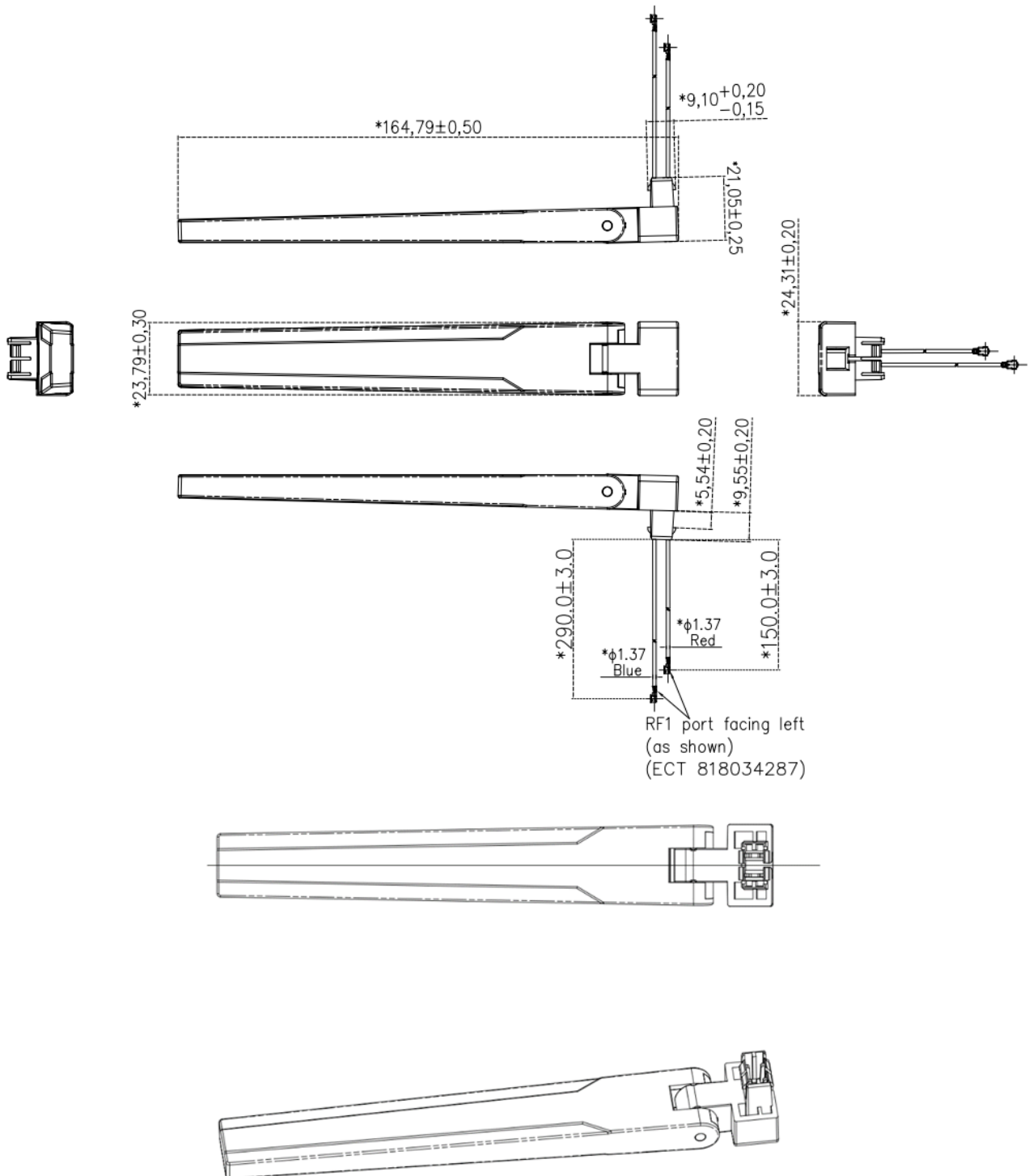


1.4. Matching Circuit



	E1	E1	E3	E4
Default Matching	DNI	DNI	0 Ω	DNI
Tolerance	N/A	N/A	$\pm 5\%$	N/A

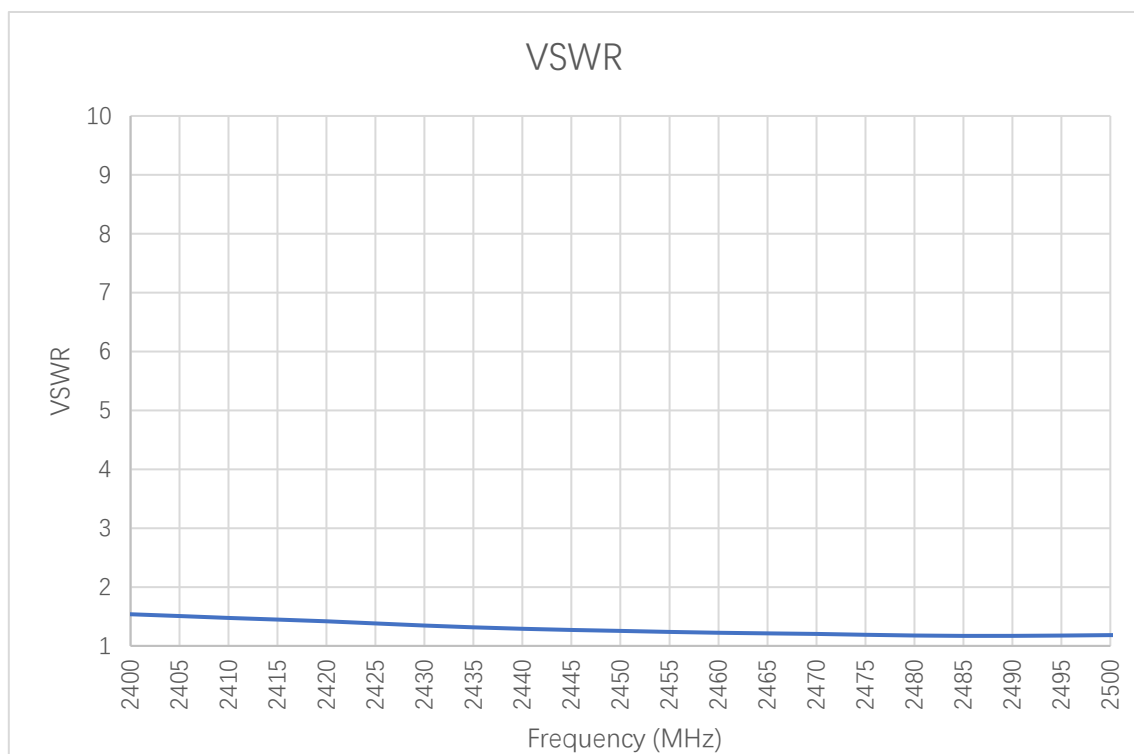
2 Drawing

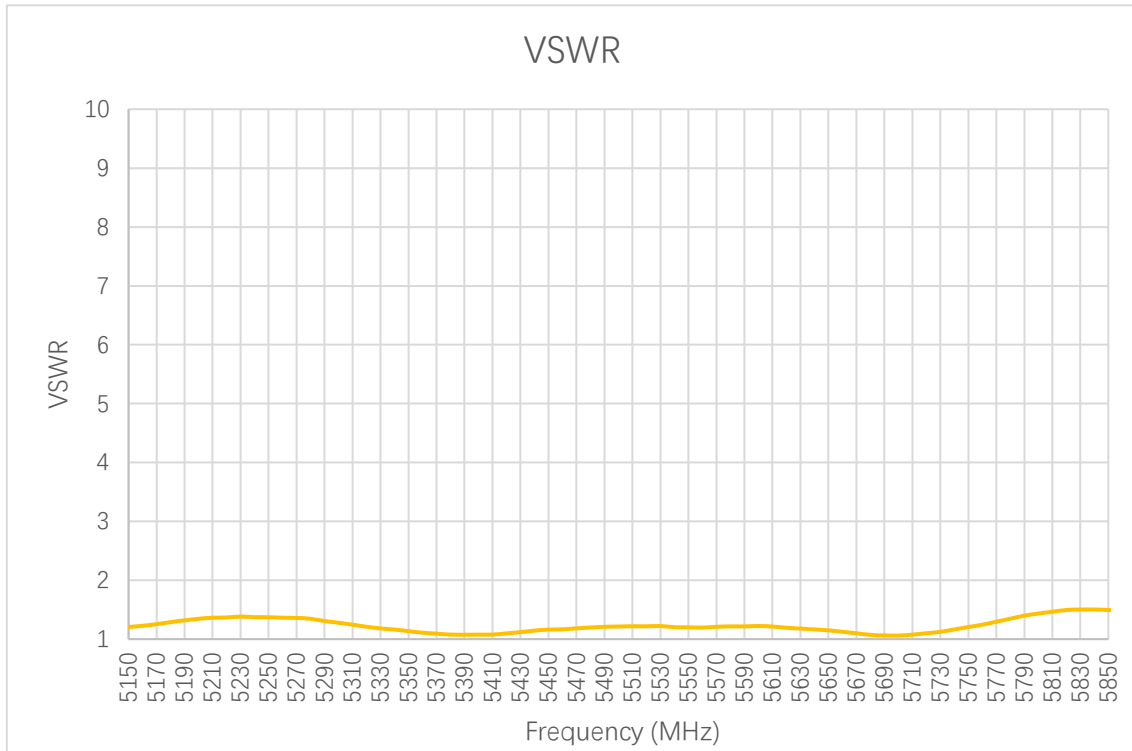


3 Detailed Performance

3.1. S-Parameter Test

3.1.1. VSWR



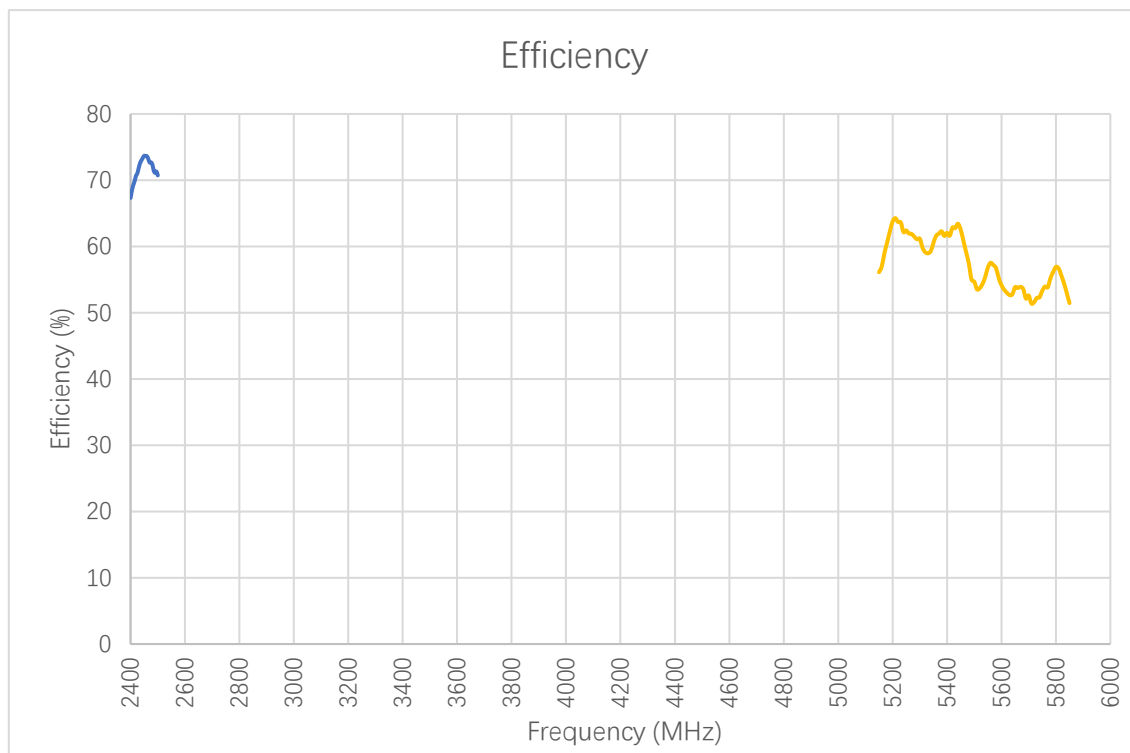


VSWR

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
VSWR	1.5	1.3	1.2	1.2	1.2	1.5	-	-	-	-

3.2. Radiation Performance Test

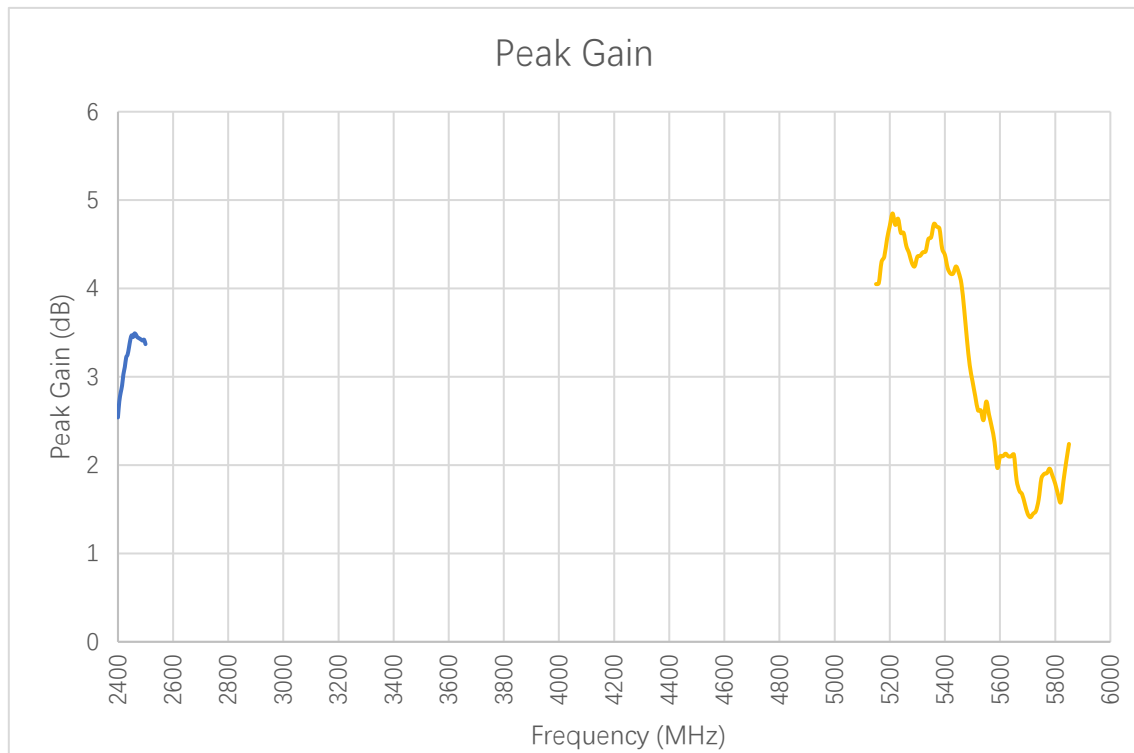
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Efficiency (%)	67.3	73.7	70.8	56.1	54.7	51.5	-	-	-	-

3.2.2. Peak Gain

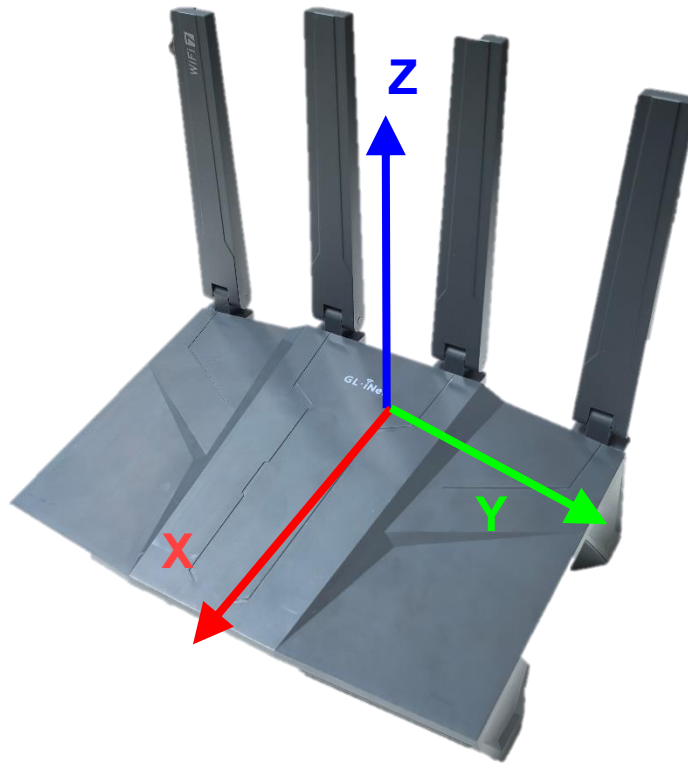


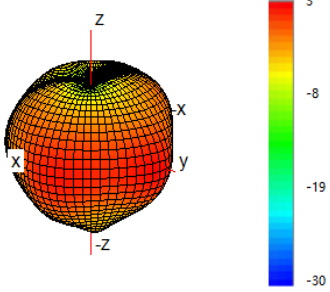
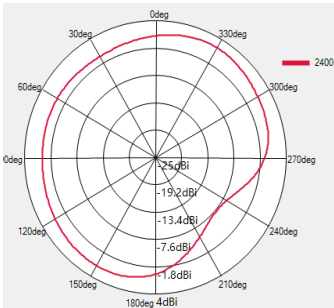
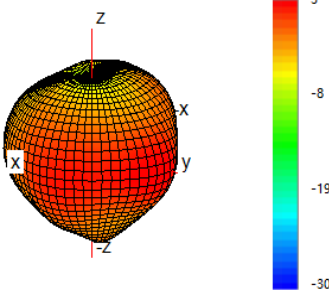
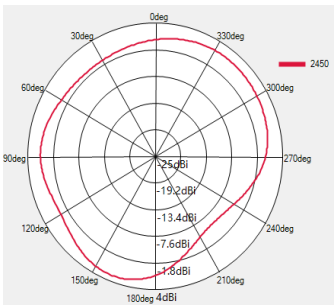
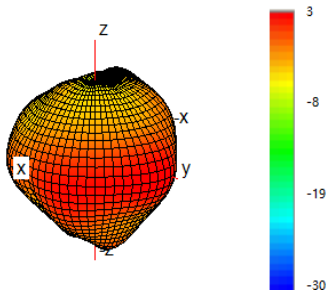
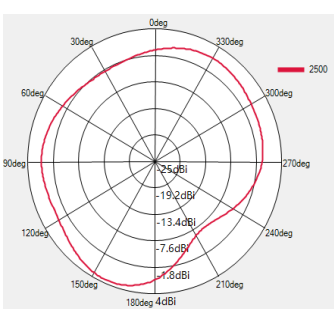
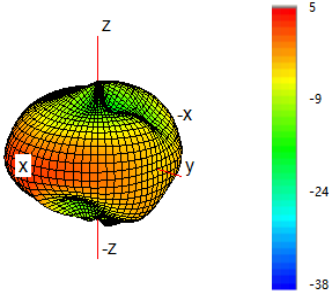
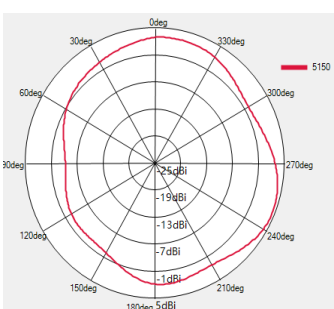
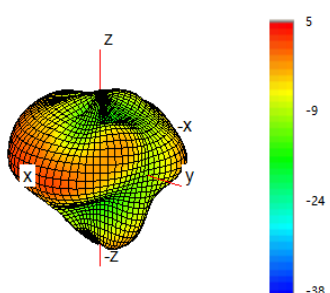
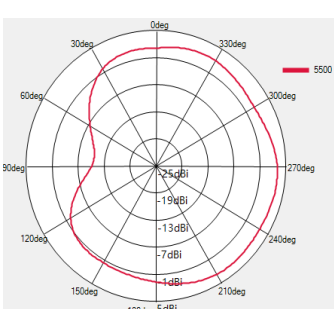
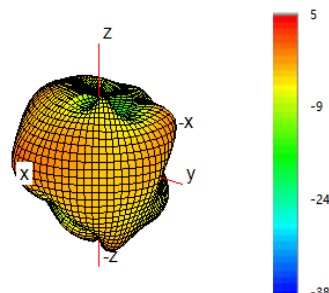
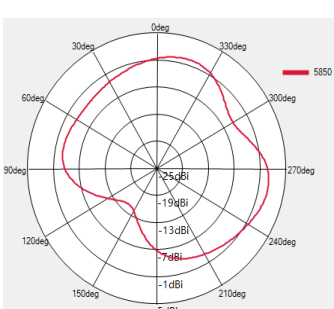
Peak Gain (dBi)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Peak Gain (dBi)	2.5	3.5	3.4	4.1	3.0	2.2	-	-	-	-

3.2.3. 2D Radiation Pattern

- Test Condition: Assembled in test device
- Test Chamber: FS-G-1



2400MHz	2400MHz-H	2450MHz	2450MHz-H
			
2500MHz	2500MHz-H	5150MHz	5150MHz-H
			
5500MHz	5500MHz-H	5850MHz	5850MHz-H
			

Contact Us

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Revision History

Version	Date	Author	Note
-	2025-05-07	Mordecai LIU/ Shea LI/ Aria CHU	Creation of the document
1.0	2025-05-07	Mordecai LIU/ Shea LI/ Aria CHU	First official release



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