

Antenna Datasheet

Product OC: Y4SCV0MA0CA

Version: 1.0

Date: 2025-07-24

Status: Preliminary

Product Name: Wi-Fi FPC Antenna

Key Features:

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

Dimensions: 25 mm × 13 mm

Efficiency: Up to 58.4%

RoHS and REACH Compliant

Contents

Contents	1
1 Specification	2
1.1. Electrical.....	2
1.2. Mechanical & Environmental	3
1.3. Antenna Assembly	4
1.4. Matching Circuit	5
2 Drawing	6
3 Detailed Performance	7
3.1. S-Parameter Test	7
3.1.1. VSWR	7
3.2. Radiation Performance Test.....	8
3.2.1. Efficiency.....	8
3.2.2. Peak Gain	9
3.2.3. 3D & 2D Radiation Pattern	10
Contact Us	12
Legal Notices	13
Revision History	15

1 Specification

Test Condition: Assembled in test device

1.1. Electrical

Electrical	
Frequency Range	2400–2500 MHz, 5150–5850 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional

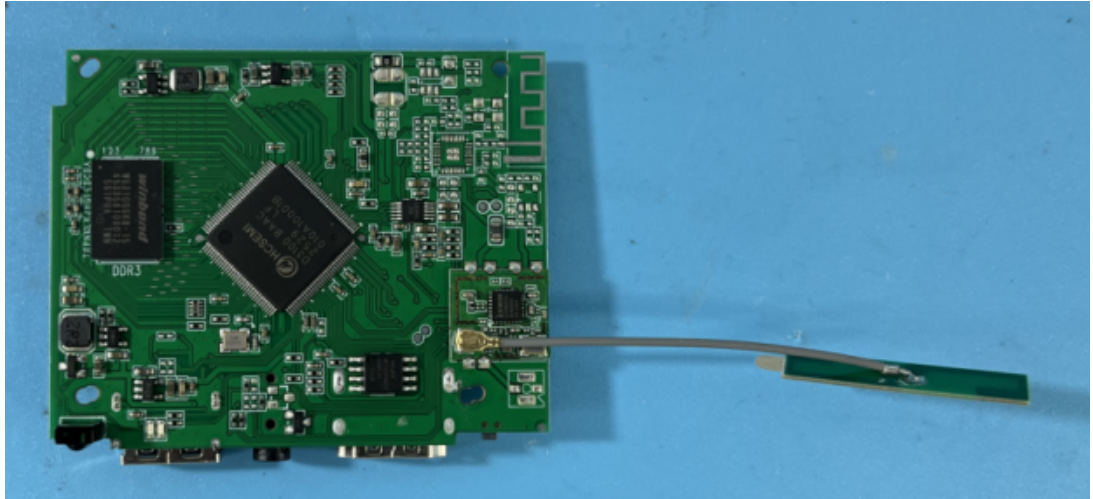
Electrical - Detail												
SPEC	Band	B71	B12 /B13 /B28	B5 /B8 /B26	n74 /n75 /n76	B1 /B2 /B3	B40	Wi-Fi 2G	B38 /B41	B42 /B48 /n77	n79	Wi-Fi 5G
	Freq. (MHz)	600– 700	700– 810	820– 960	1420– 1520	1700– 2170	2300– 2400	2400– 2500	2500– 2690	3300– 4200	4400– 5000	5150– 5850
Max. VSWR		-	-	-	-	-	-	2.0	-	-	-	1.5
Max. Return Loss (dB)		-	-	-	-	-	-	-9.4	-	-	-	-13.8
AVG Eff. (%)		-	-	-	-	-	-	54.0	-	-	-	53.4
AVG AVG Gain (dB)		-	-	-	-	-	-	-2.7	-	-	-	-2.7
Max. Peak Gain (dBi)		-	-	-	-	-	-	2.6	-	-	-	3.8
VSWR						≤ 2.0						
Return Loss						≤ -9.4 dB						
Peak Gain						≤ 3.8 dBi						

1.2. Mechanical & Environmental

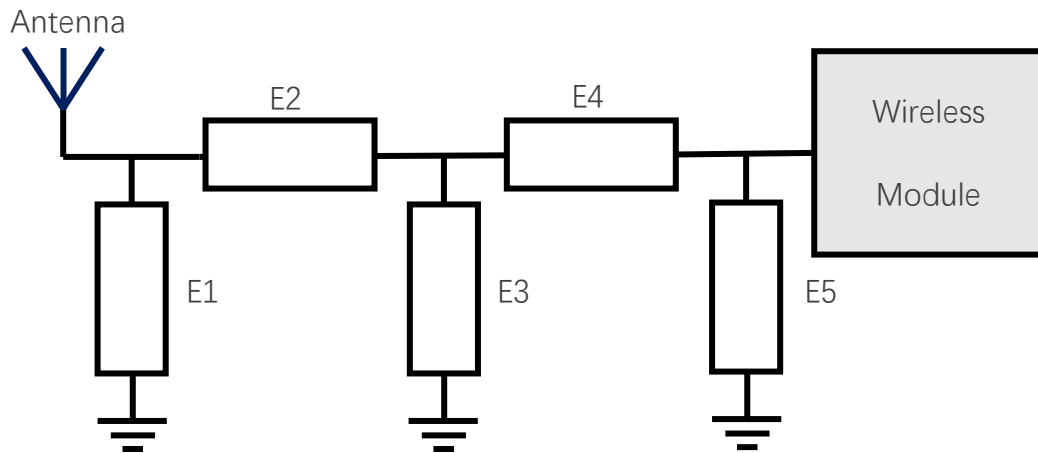
Mechanical	
Antenna Dimensions	25 mm × 3 mm
Material & Color	FPC & Black
Cable & Length & Color	Φ 0.81 mm & 175 mm & Black
Connector Type	ECT RF 2
Mounting Type	Adhesive
Weight	Typ. 0.5 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
RoHS & REACH Compliant	Yes

1.3. Antenna Assembly

Y4SCV0MA0CA

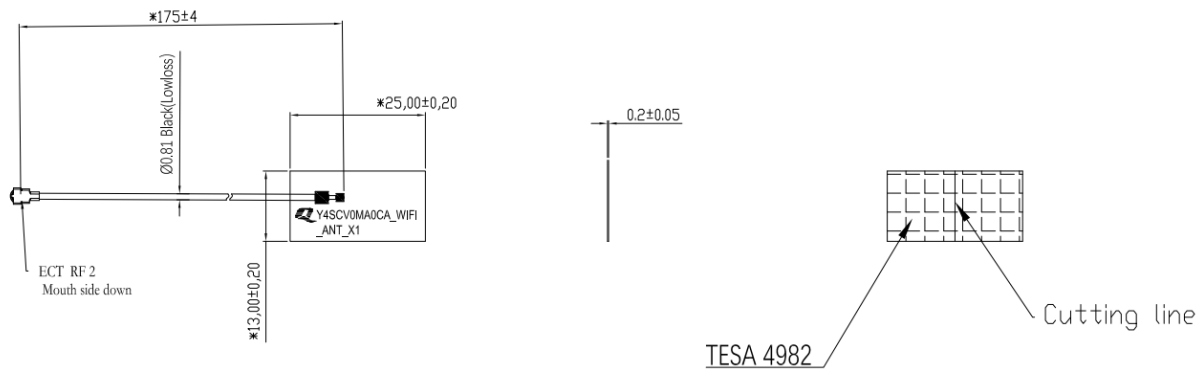


1.4. Matching Circuit



	E1	E1	E3	E4	E5
Default Matching	DNI	0 Ohm	DNI	0 Ohm	DNI
Tolerance	N/A		N/A		N/A

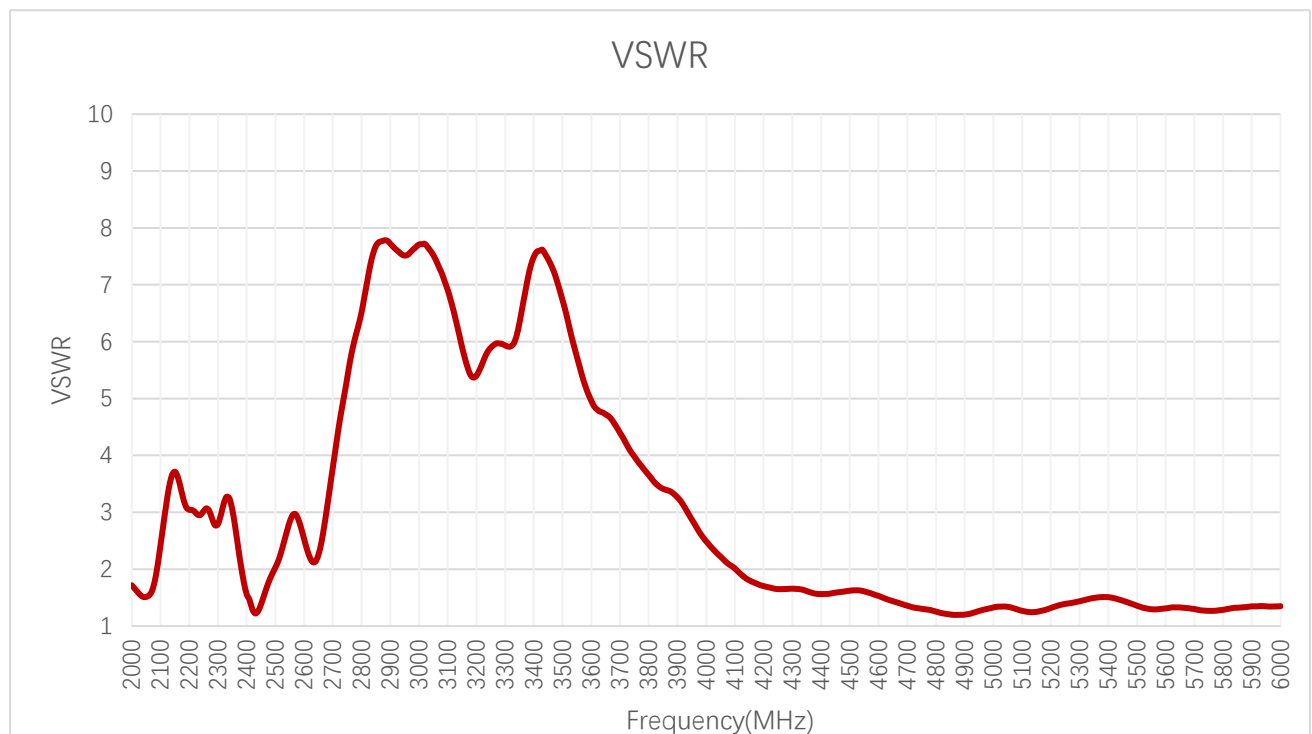
2 Drawing



3 Detailed Performance

3.1. S-Parameter Test

3.1.1. VSWR

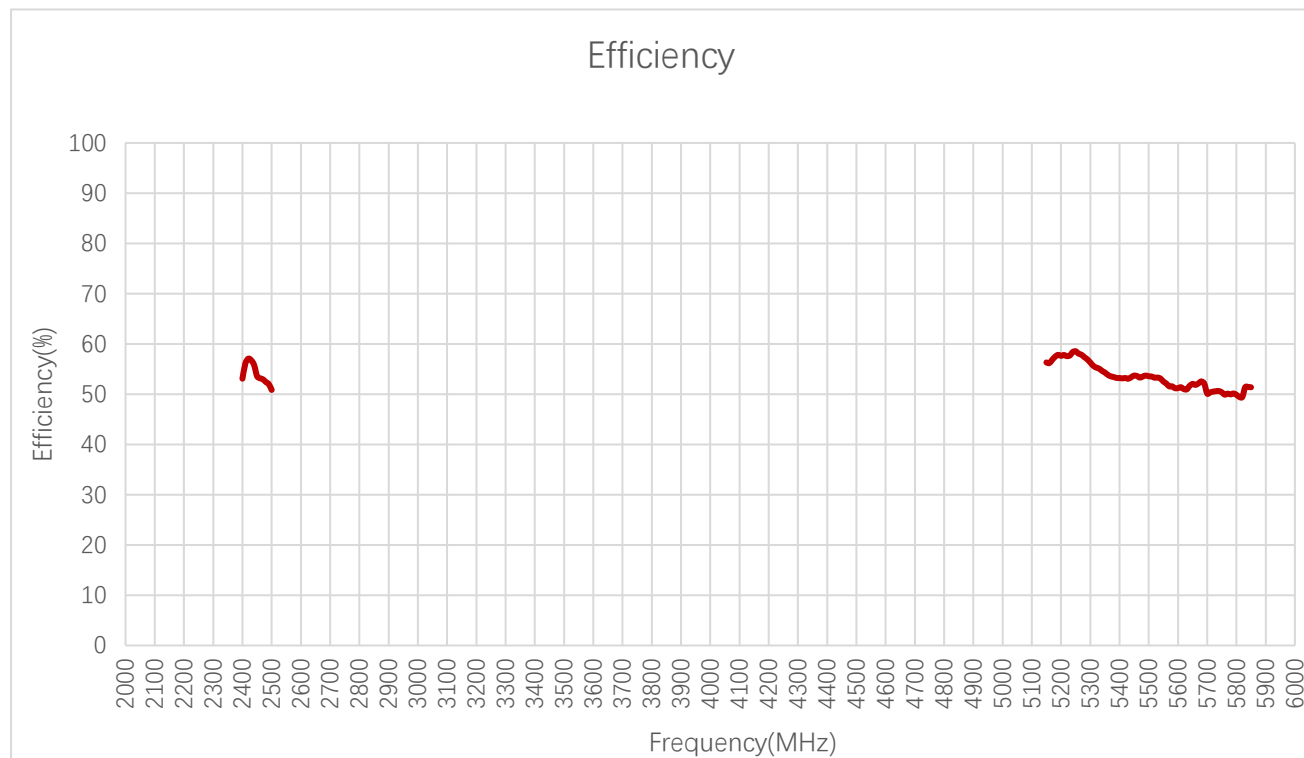


VSWR

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
VSWR	1.6	1.4	2.0	1.2	1.4	1.3	-	-	-

3.2. Radiation Performance Test

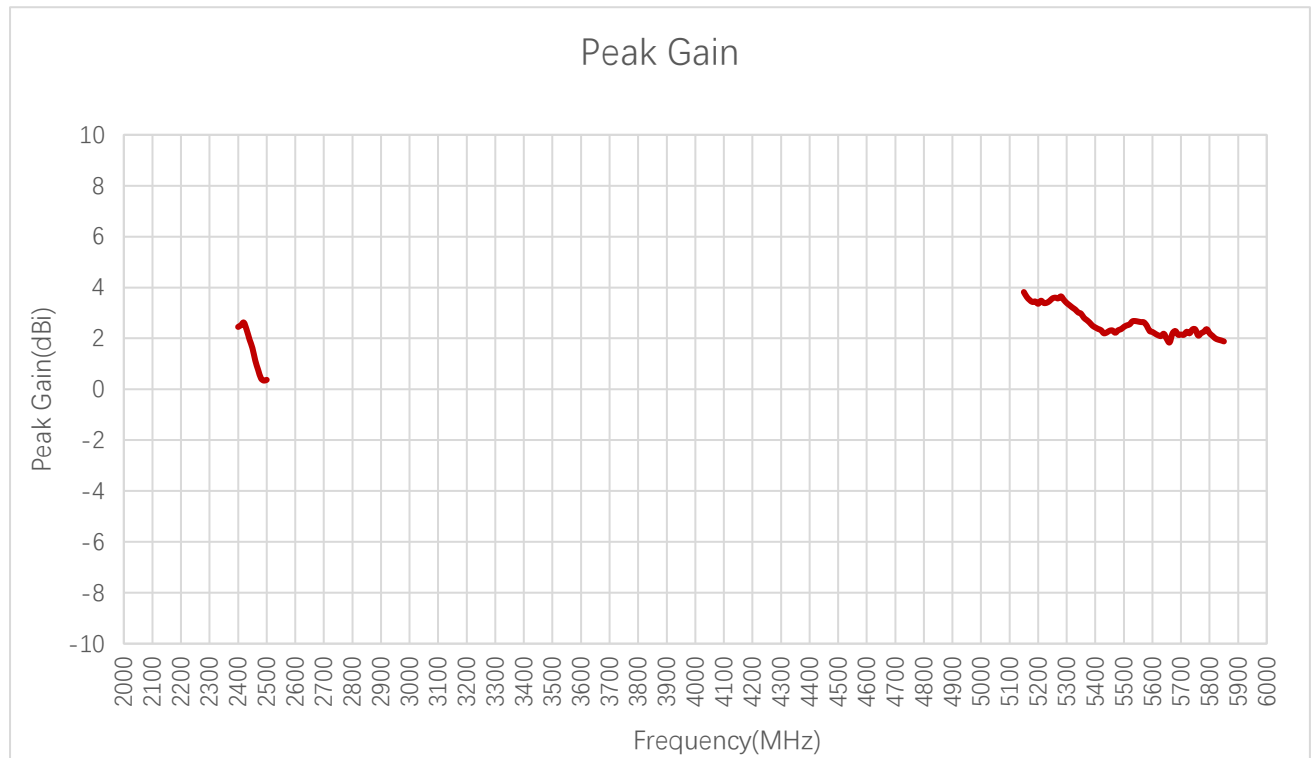
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
VSWR	53.1	53.6	50.9	56.3	53.6	51.4	-	-	-

3.2.2. Peak Gain

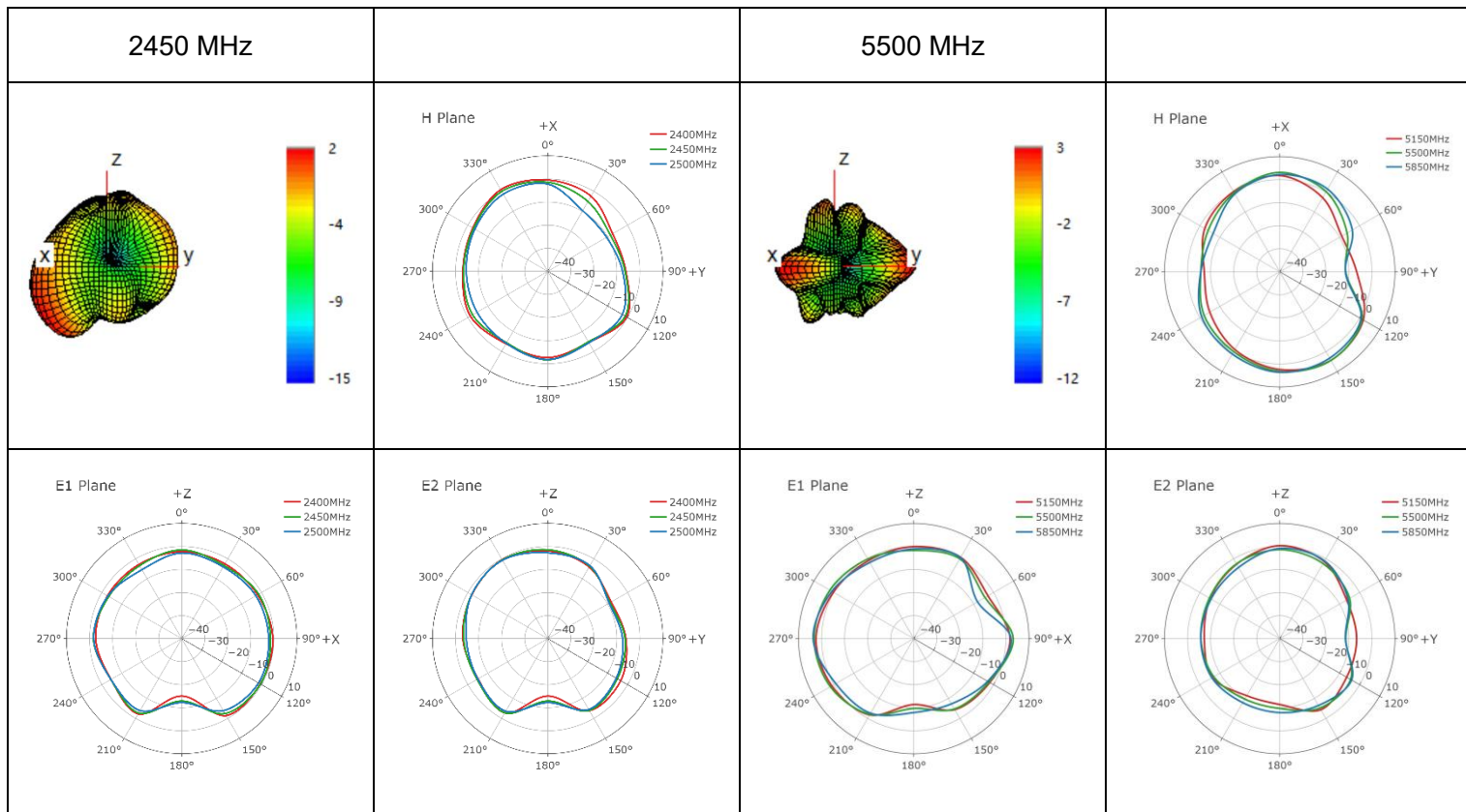


Peak Gain (dBi)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
VSWR	2.5	1.6	0.4	3.8	2.5	1.9	-	-	-

3.2.3. 3D & 2D Radiation Pattern

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



Contact Us

At Quectel, our aim is to provide timely and comprehensive services to our customers. If you require any assistance, please contact our headquarters:

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Revision History

Version	Date	Author	Note
-	2025-07-24	Edwin XIAO/ Steven MO/ Rainey LIAO	Creation of the document
1.0	2025-07-24	Edwin XIAO/ Steven MO/ Rainey LIAO	First official release



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