

Antenna Datasheet

Product OC: Y0SQA0CA0BA

Version: 1.0

Date: 2026-03-30

Product Name: WIFI Antenna

Key Features:

Frequency Range: 2400–2500 MHz, 5150–7125 MHz

Dimensions: 50.0 mm × 20.0 mm × 0.12 mm

Efficiency: Up to 38.4 %

RoHS & REACH Compliant

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1 Specification

Test Condition: Assembled in test device

1.1. Electrical

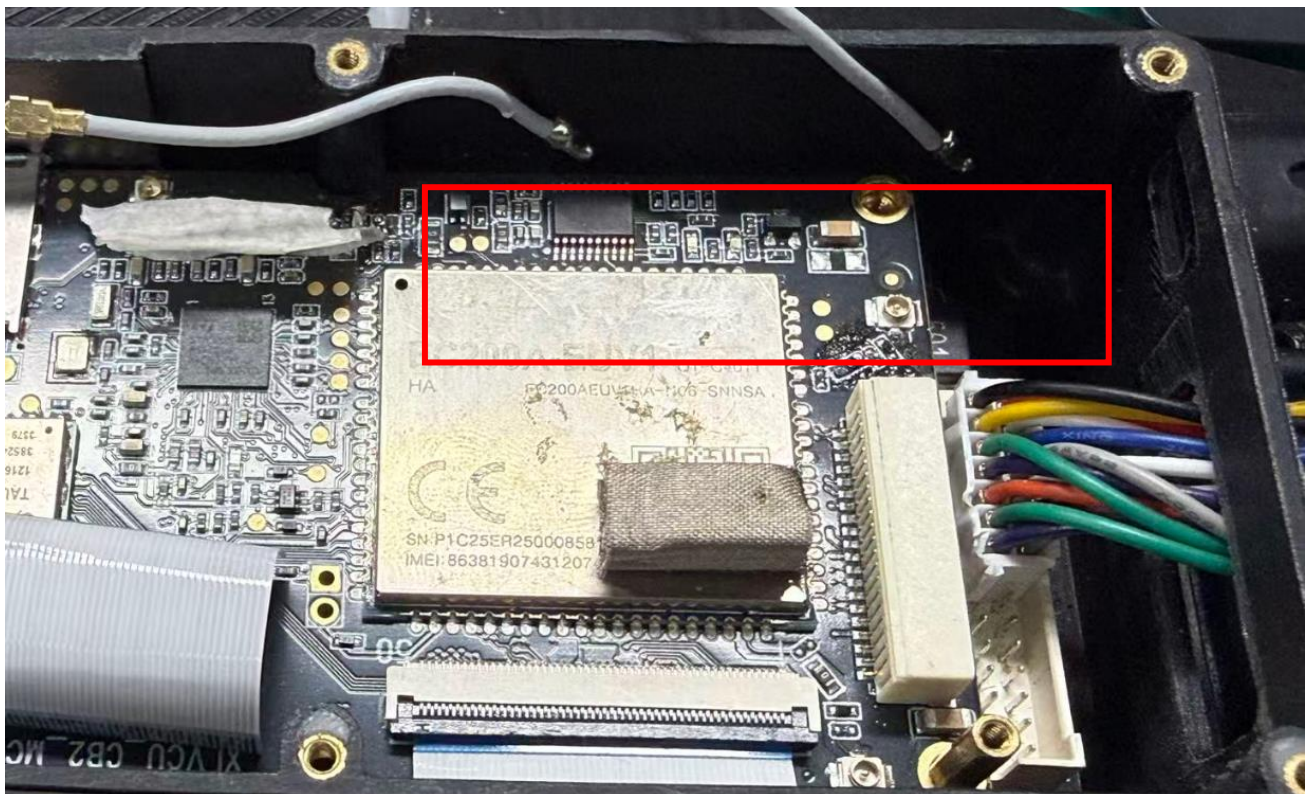
Electrical	
Frequency Range	2400–2500 MHz, 5150–7125 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional
VSWR	≤ 3.0
Peak Gain	3.7 dBi

1.2. Mechanical & Environmental

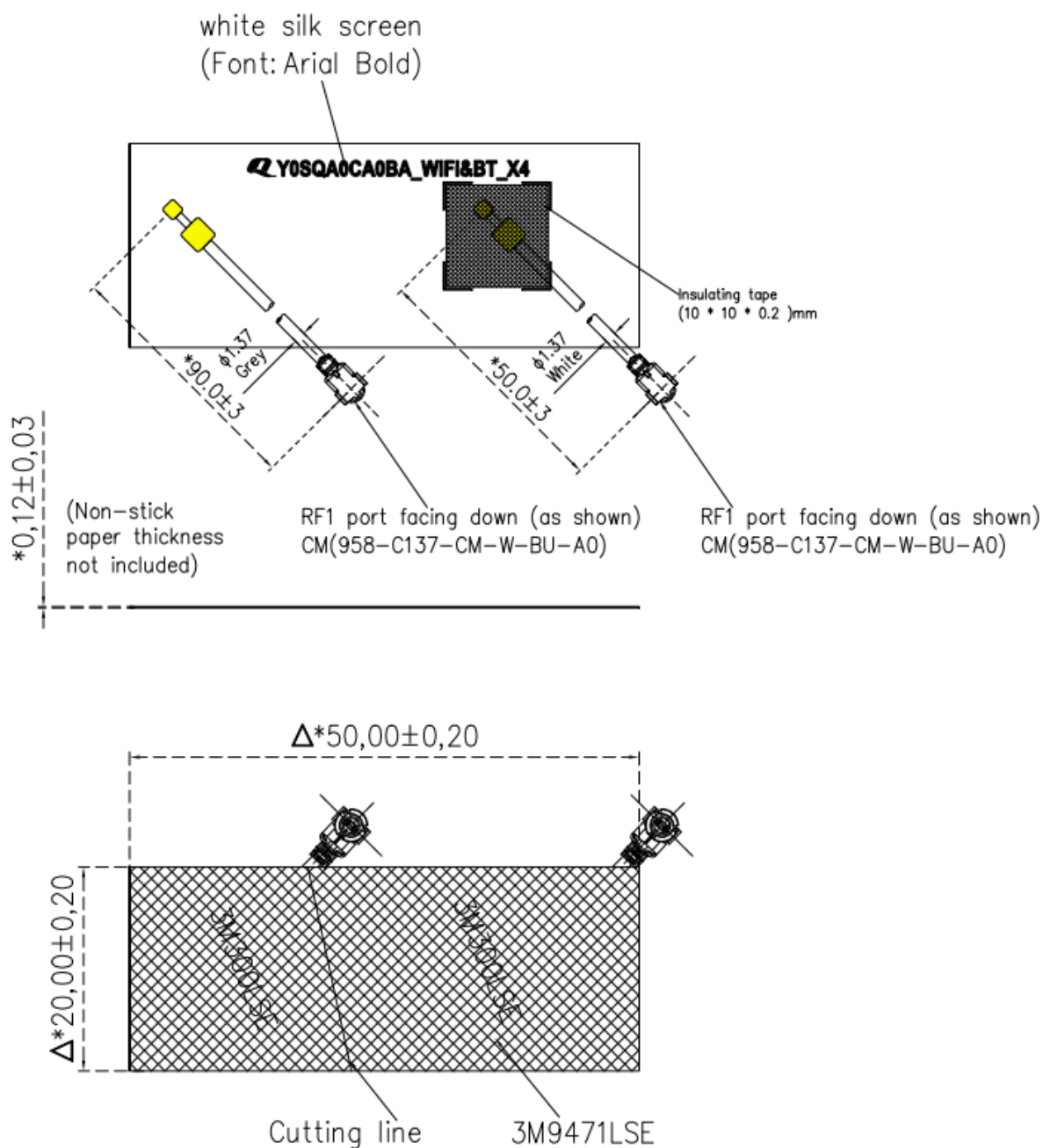
Mechanical		
Antenna Dimensions		50.0 mm × 20.0 mm × 0.12 mm
Material & Color		FPC & Black
Cable Type & Color & Length	WIFI	Φ 1.37 & Grey & 90.0 mm
	BT	Φ 1.37 & White & 50.0 mm
Connector Type	WIFI	RF1
	BT	RF1
Mounting Type		Adhesive
Weight		Typ. 1.1 g

Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
RoHS REACH Compliant	Yes (The lead content in copper alloy connectors can exceed 0.1% but must be below the ROHS exemption limit of 4%)

1.3. Antenna Assembly



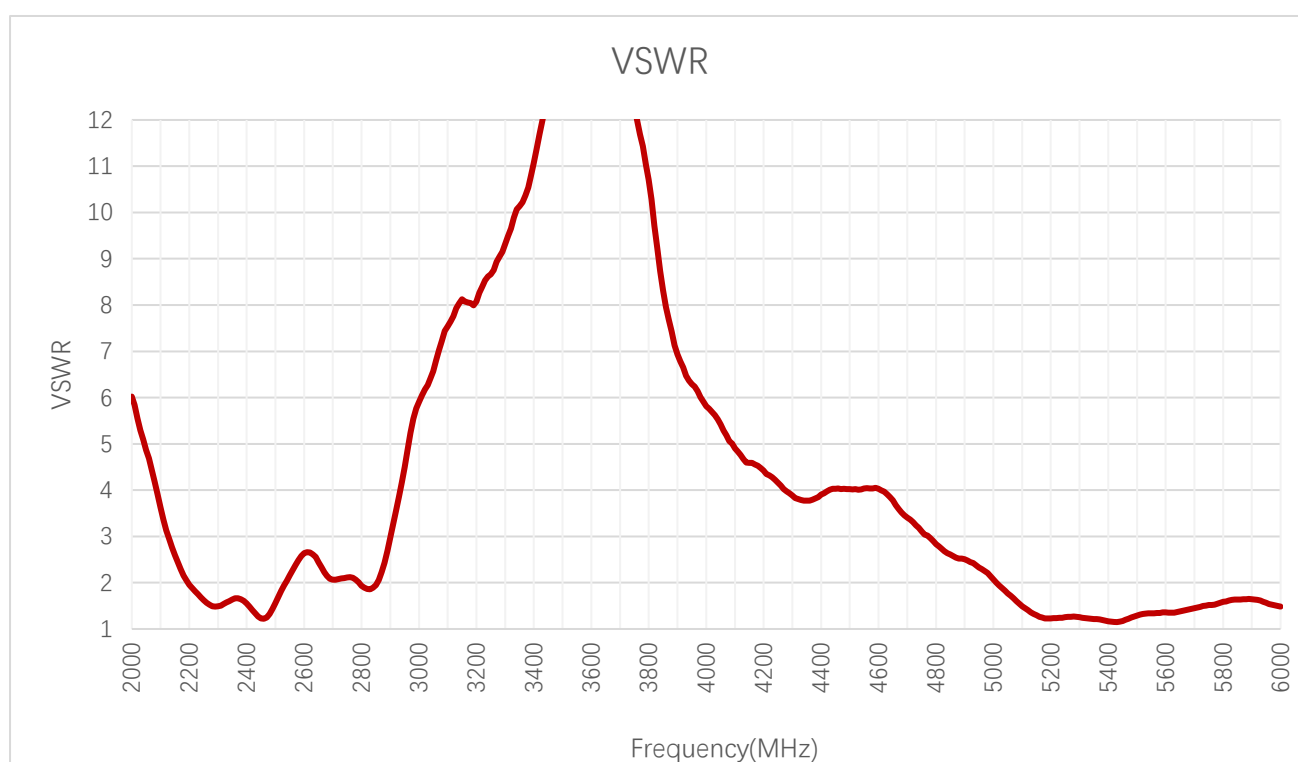
2 Drawing



3 Detailed Performance

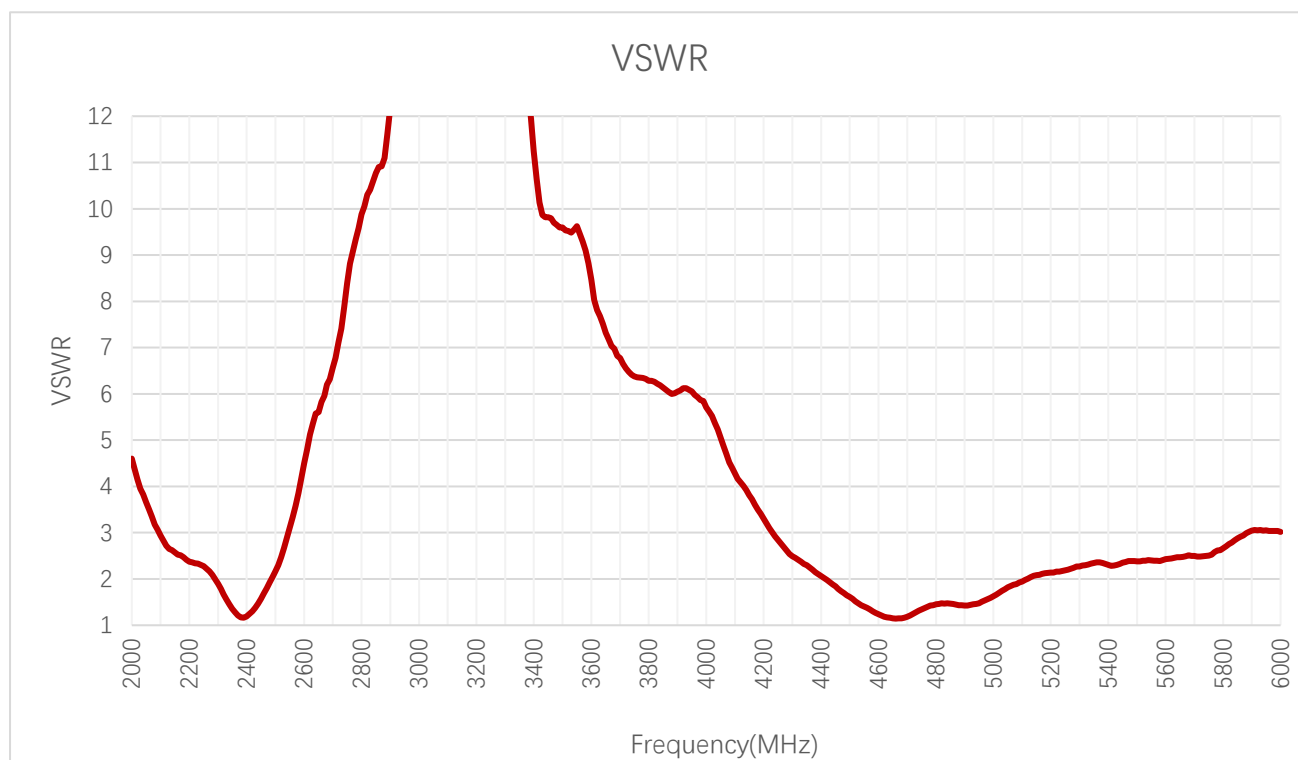
3.1. S-Parameter Test

3.1.1. VSWR



VSWR – WIFI

Frequency (MHz)	2400	2450	2500	5150	5500	5850			
VSWR	1.6	1.2	1.6	1.3	1.3	1.6			

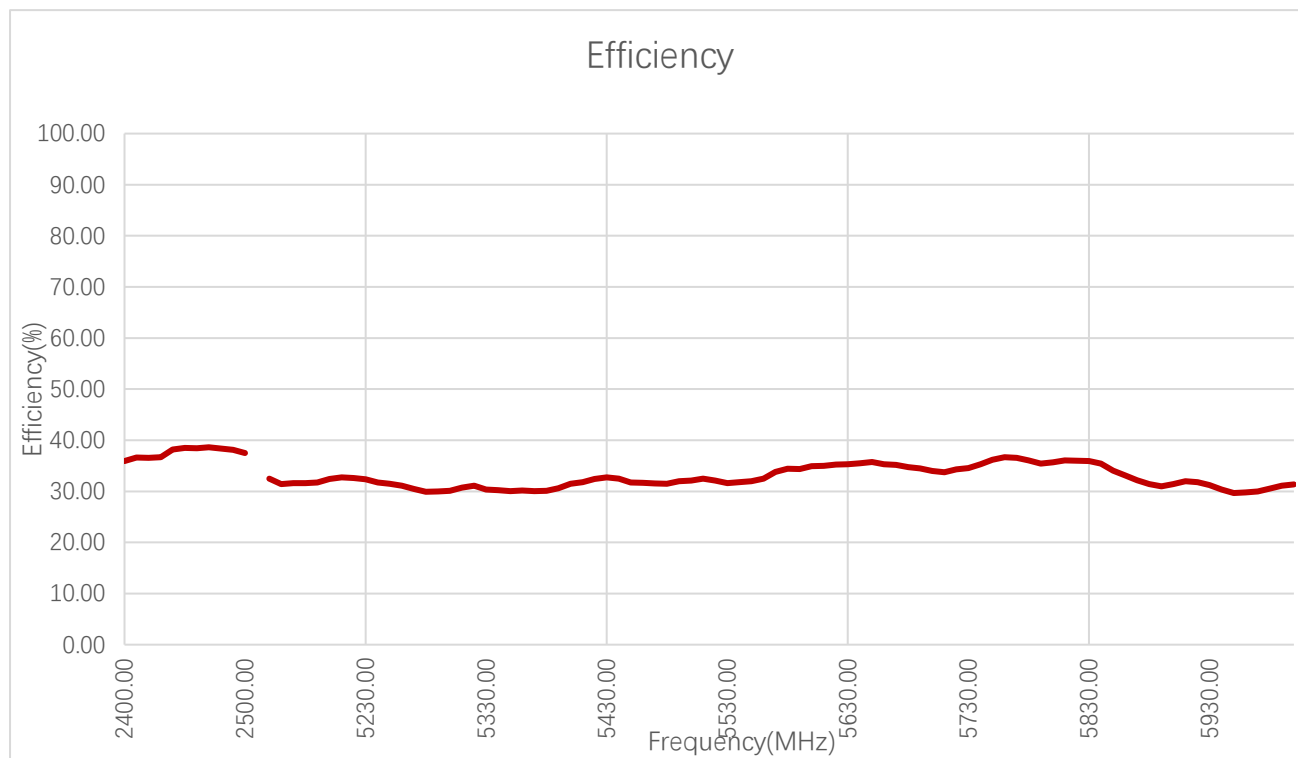


VSWR – BT

Frequency (MHz)	2400	2450	2500	5150	5500	5850			
VSWR	1.2	1.6	2.2	2.1	2.4	2.9			

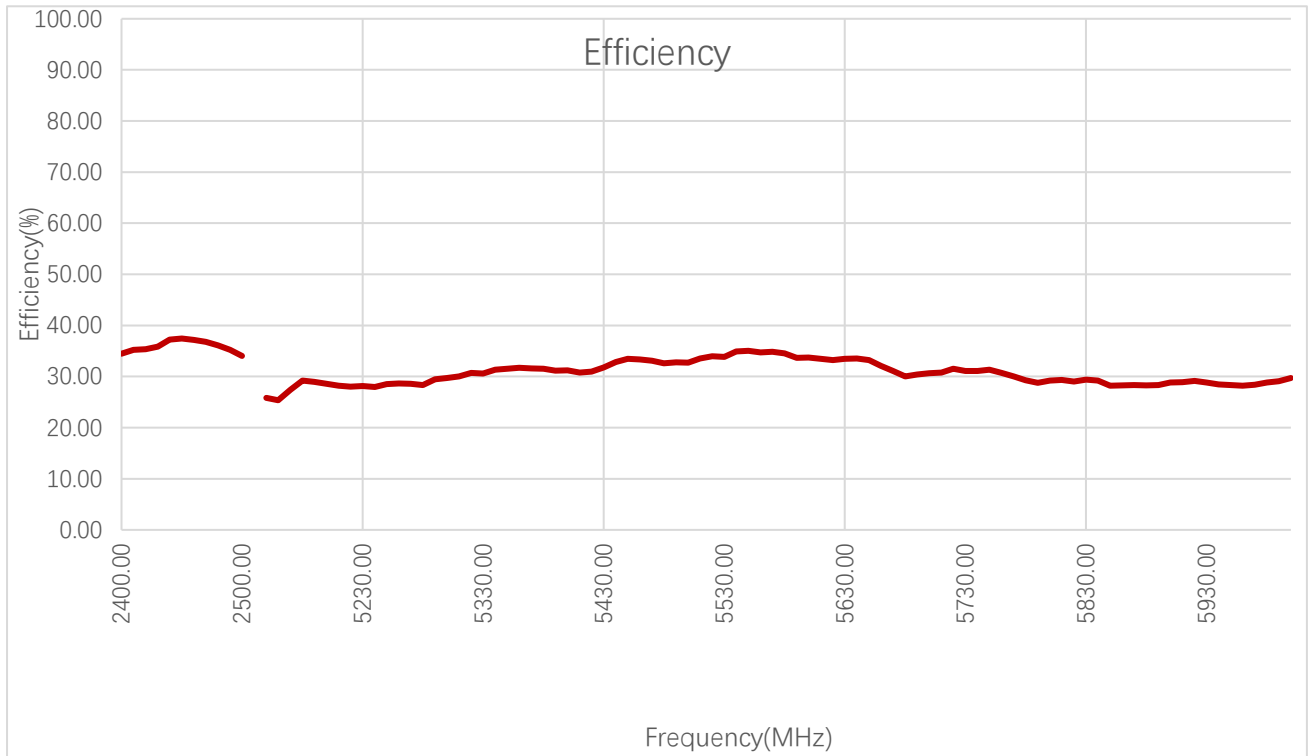
3.2. Radiation Performance Test

3.2.1. Efficiency



Efficiency (%) – WIFI

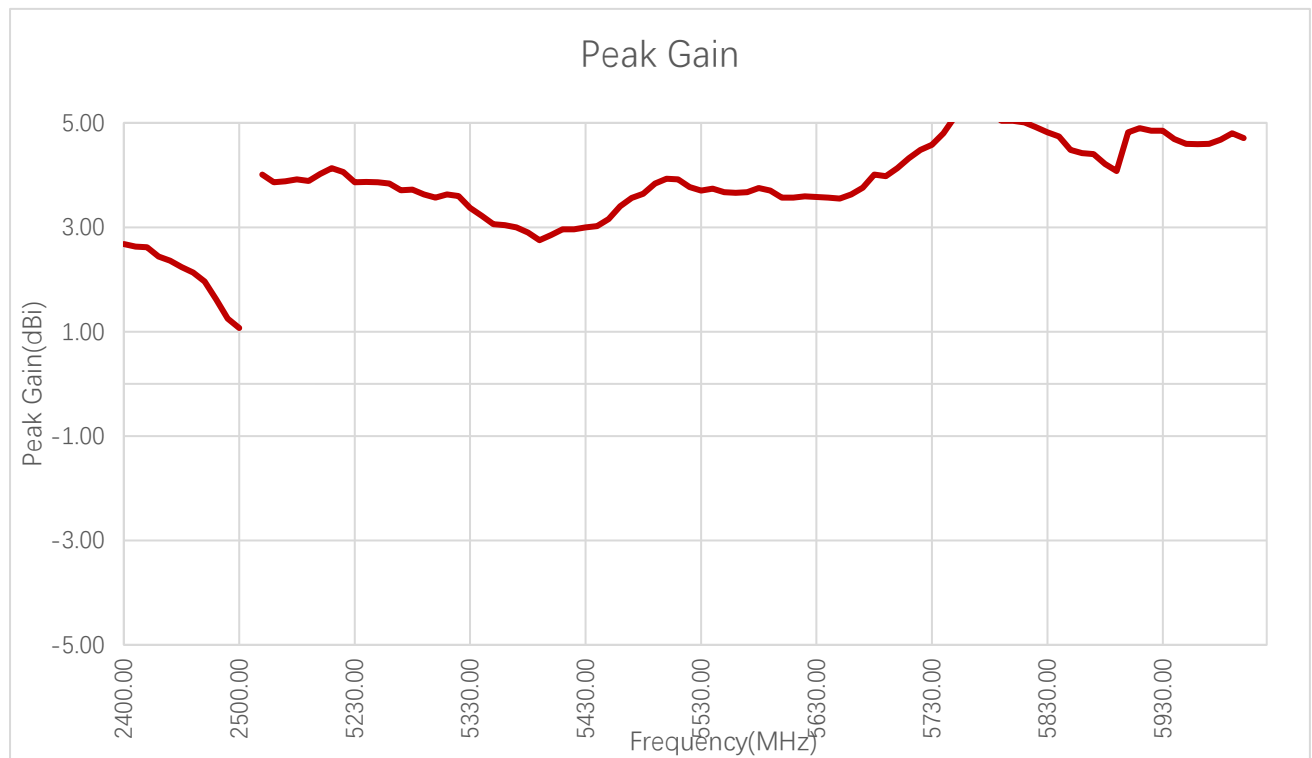
Frequency (MHz)	2400	2450	2500	5150	5500	5850			
Efficiency (%)	36.0	38.5	37.5	32.5	32.1	34.0			



Efficiency (%) – BT

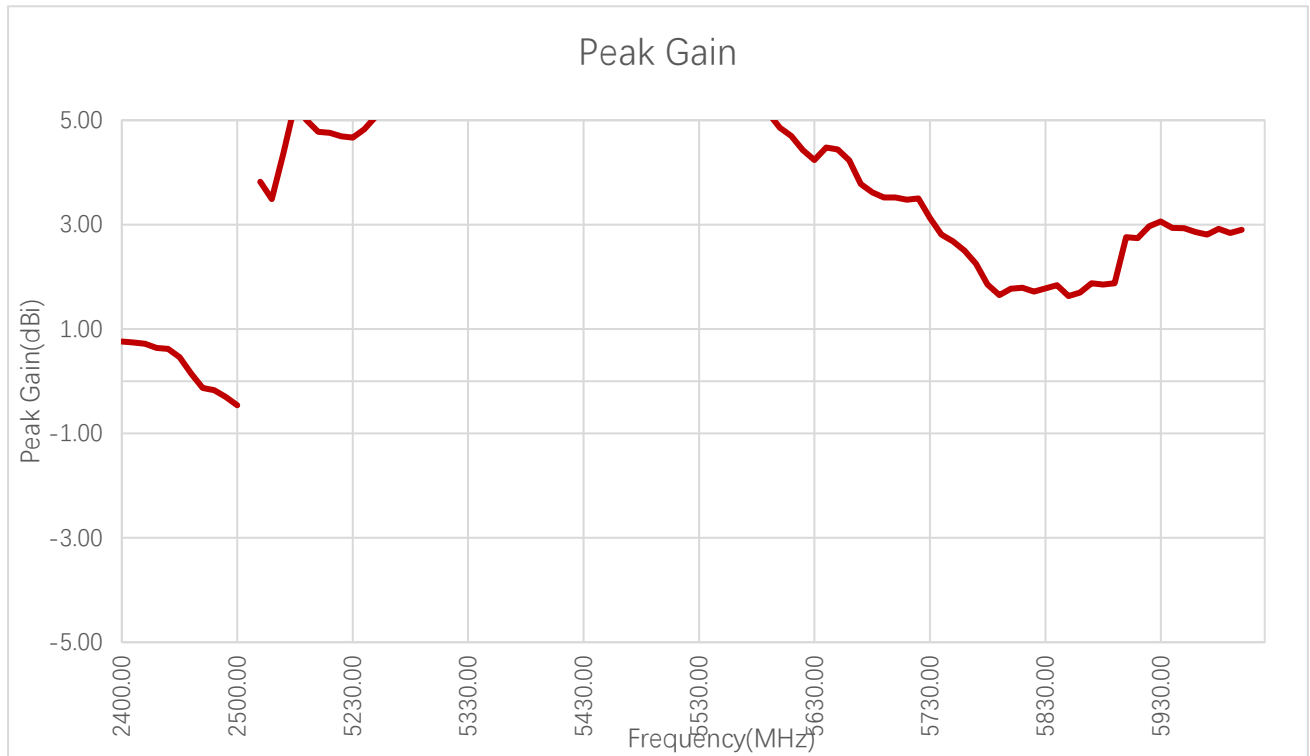
Frequency (MHz)	2400	2450	2500	5150	5500	5850			
Efficiency (%)	34.5	37.4	34.0	25.8	32.7	28.2			

3.2.2. Peak Gain



Peak Gain (dBi) – WIFI

Frequency (MHz)	2400	2450	2500	5150	5500	5850			
Peak Gain (dBi)	2.7	2.2	1.1	4.0	3.9	4.5			

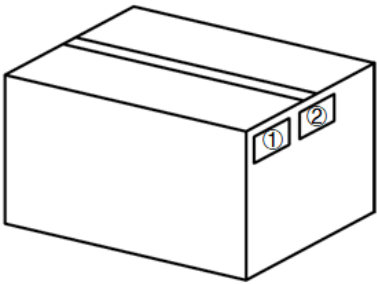
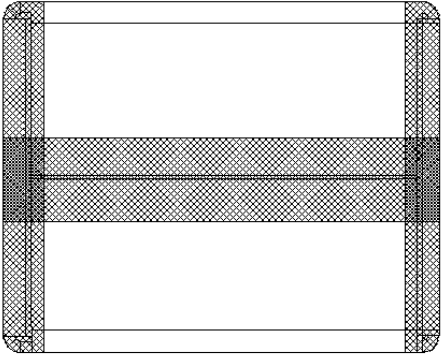


Peak Gain (dBi) – BT

Frequency (MHz)	2400	2450	2500	5150	5500	5850			
Peak Gain (dBi)	0.8	0.5	-0.5	3.8	6.0	1.6			

4 Packaging

Step	Packaging Picture / 2D Picture	Description
1		25 products are wrapped with EPE foam; 25 pieces per bundle
2		Each large PE bag contains 2 bundles, totaling 50 products. 2 bundles/PE bag
3		(60 PE Bags / Carton Box) (3000 Antennas / Carton Box) Estimated quantity Products that cannot fill the entire carton box are packed in a suitable size carton box. <u>Carton Size:</u> <u>L × W × H = 405 × 295 × 185 mm</u>

4		Position for Attaching Labels ① Carton Label ② Quality Label
5		Sealing Cartons H-shaped sealing cartons
Note	The initial packaging method described above is for reference only, and the final actual packaging method shall be subject to the actual shipping packaging.	

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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Or our local offices. For more information, please visit:

<https://www.quectel.com/contact/>.

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Or email us at: support@quectel.com.

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Revision History

Version	Date	Author	Note
-	2026-03-30	Krystal Sun/ Shea Li/ Kessie Geng/ Rainey Liao	Creation of the document
1.0	2026-03-30	Krystal Sun/ Shea Li/ Kessie Geng/ Rainey Liao	First official release



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