

Antenna Datasheet

Product OC: YECT061W1BM
Version: 1.2
Date: 2026-08-03
Status: Released

Product Name: Wi-Fi Terminal Mount Rubber Monopole Antenna
Key Features:
Frequency Band: Wi-Fi: 2400–2500 MHz, 5150–5850 MHz,
5925–7125 MHz;
Dimensions: Φ 9 mm × 54.9 mm
Efficiency: Up to 80 %
RoHS & REACH Compliant
IP65

Overview

YECT061W1BM is a Wi-Fi rubber antenna measuring Φ 9 mm × 54.9 mm. This ultra-wide-band antenna provides broad coverage from 2400–2500 MHz, 5150–5850 MHz, 5925–7125 MHz. The antenna is terminated with SMA Male connectors. This low profile, terminal mount omni–directional antenna, ideal for applications where the antenna is required to be discrete, is easy to install with maximum durability assured thanks to its TPE enclosure.

It allows constant and reliable transmission and reception due to its omni-directional gain across all frequency bands. YECT061W1BM is designed as a monopole antenna, which needs to be mounted on a ground plane to offer high efficiency in all working bands. It is a perfect antenna product for customers that desire highest performance. This high-efficiency, high-gain omni-directional antenna is ideally suited for gateways and routers, IoT Sensors, public safety and security, point of sales terminals, smart home automation, robotics / autonomous.

- **Typical applications include:**

✓ Gateways and Routers
✓ IoT Sensors
✓ Public Safety and Security
✓ Point of Sales Terminals
✓ Smart Home Automation
✓ Robotics / Autonomous

Quectel provides comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs. We have regional R & D centers to offer quick response to meet your requirements. Please contact our sales & FAEs if you have any requests.

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1 Specification

Test Condition: On 130 mm × 130 mm EVB

1.1. Electrical

Electrical	
Frequency Range	2400–2500 MHz, 5150–5850 MHz, 5925–7125 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional

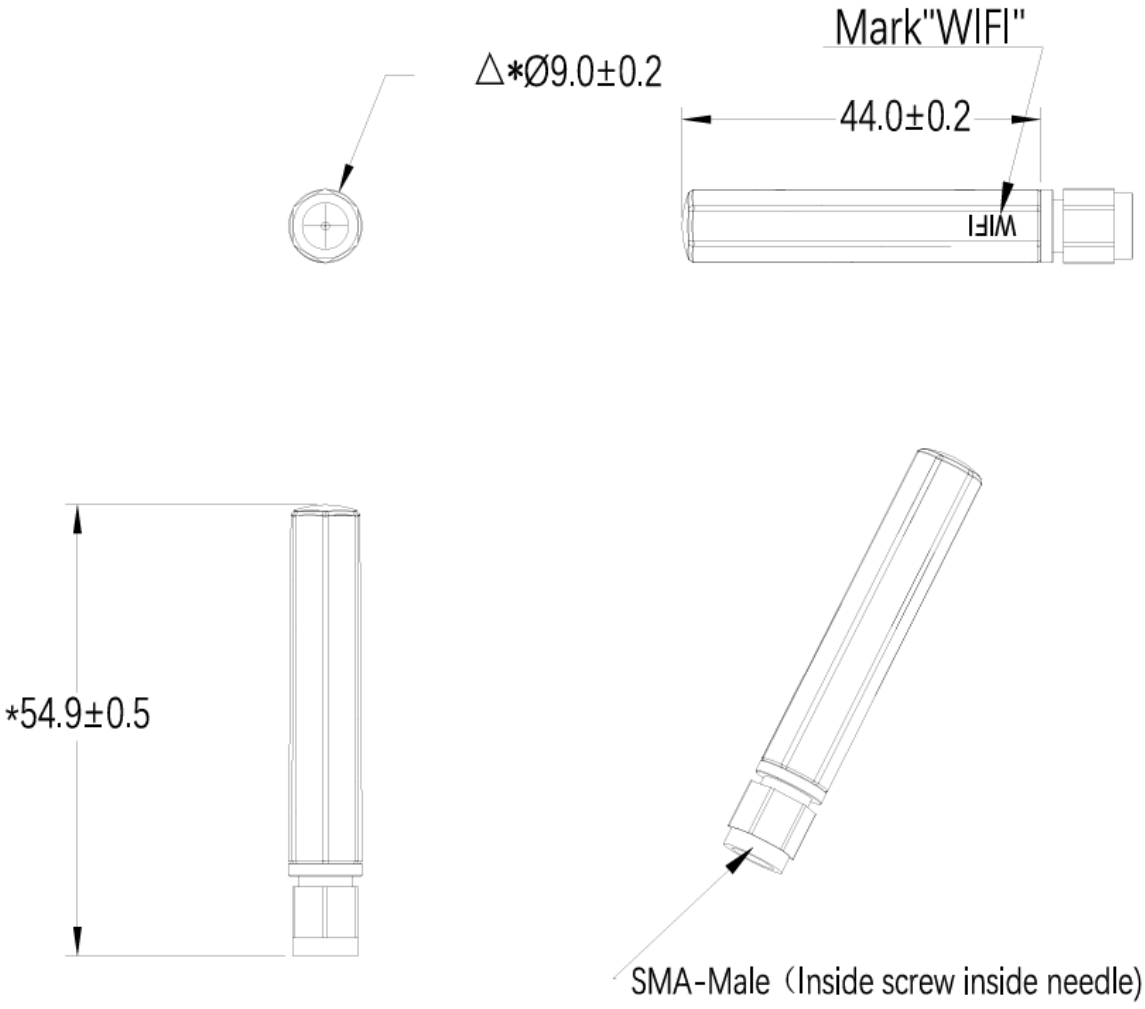
1.1.1. Wi-Fi

Band / Specification	Band	Wi-Fi 2G	Wi-Fi 5G	Wi-Fi 6G
	Freq. (MHz)	**2400–2500**	**5150–5850**	**5925–7125**
Max. VSWR		3.3	3.0	1.9
Max. Return Loss (dB)		-5.5	-6.0	-10.2
AVG Eff. (%)		57.9	67.7	72.4
AVG AVG Gain (dB)		-2.4	-1.7	-1.4
Max. Peak Gain (dBi)		3.1 (2480)	3.6 (5840)	3.5 (6695)
VSWR		≤ 3.3		
Return Loss		≤ -5.5 dB		
Peak Gain		≤ 3.6 dBi		

1.2. Mechanical & Environmental

Mechanical	
Antenna Dimensions	Φ 9 mm × 54.9 mm
Casing Material & Color	TPE & Black
Connector Type	SMA-Male
Mounting Type	Terminal
Weight	Typ. 5.1 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
Ingress Protection (IP) Rating	IP65
RoHS & REACH Compliant	Yes

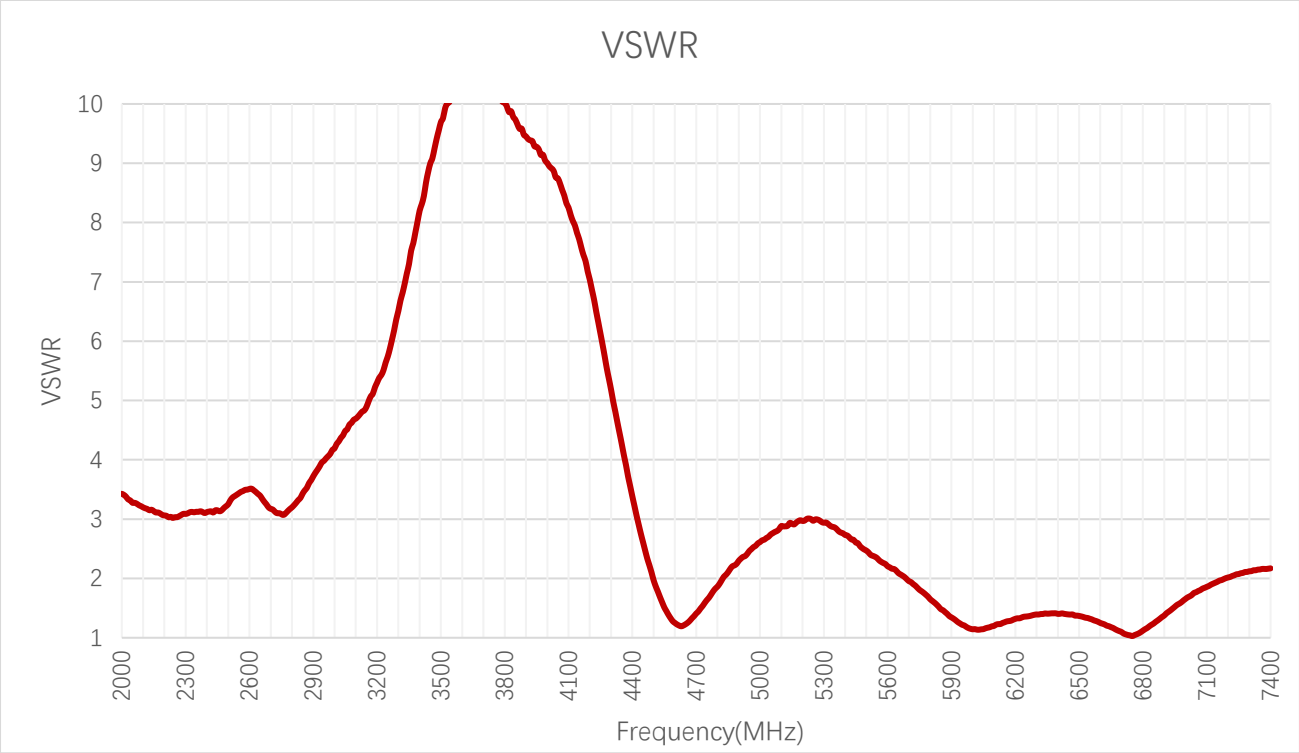
2 Drawing


△*Ø9.0±0.2
Mark"WIFI"
44.0±0.2
WIFI
*54.9±0.5
SMA-Male（Inside screw inside needle)

3 Detailed Performance

3.1. S-Parameter Test

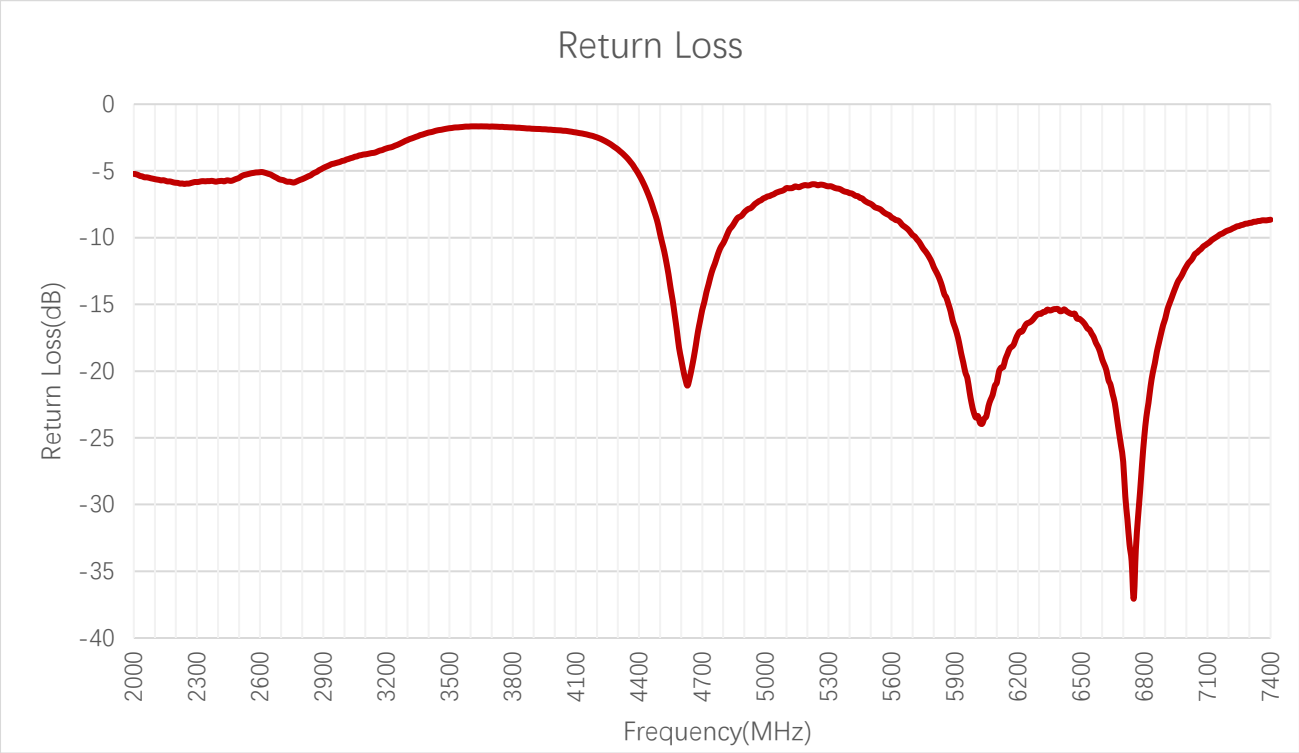
3.1.1. VSWR



VSWR – Wi-Fi

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
VSWR	3.1	3.1	3.3	2.9	2.5	1.5	1.3	1.4	1.1	1.9

3.1.2. Return Loss

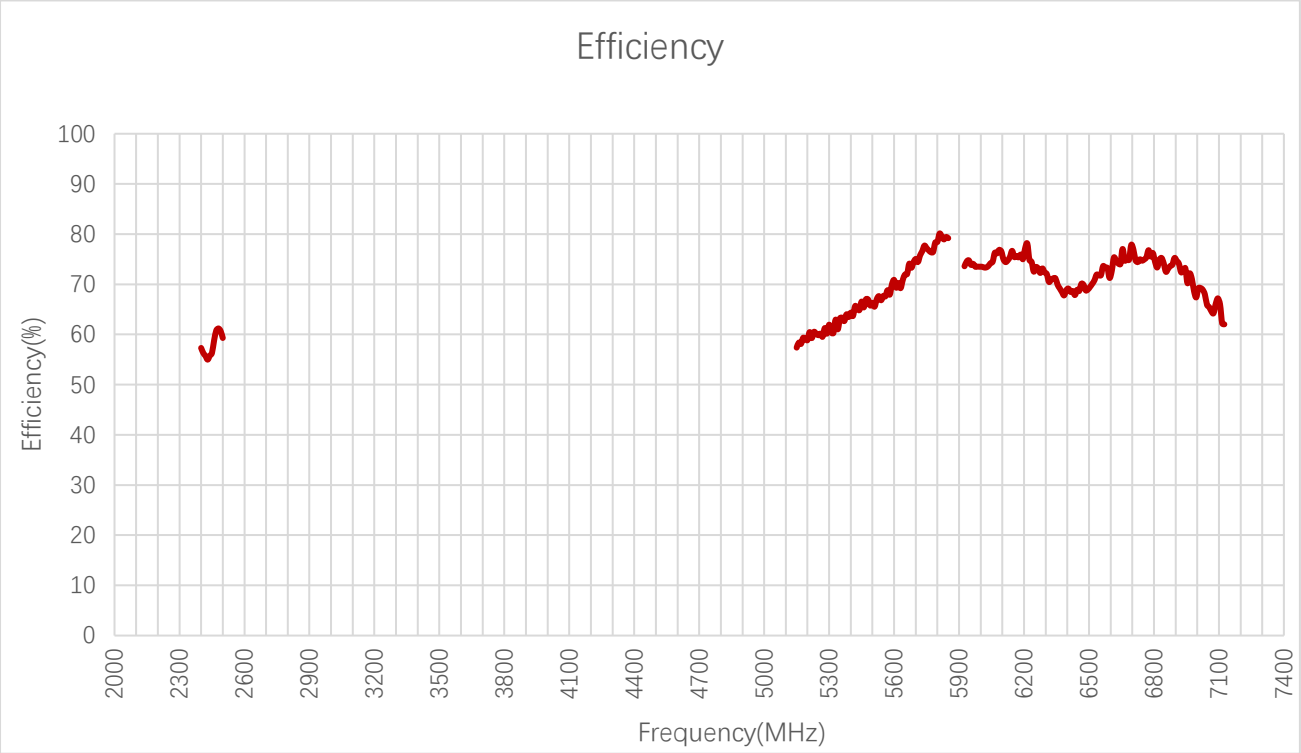


Return Loss (dB) – Wi-Fi

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Return Loss (dB)	-5.8	-5.7	-5.5	-6.2	-7.5	-14.2	-17.8	-15.6	-31.1	-10.2

3.2. Radiation Performance Test

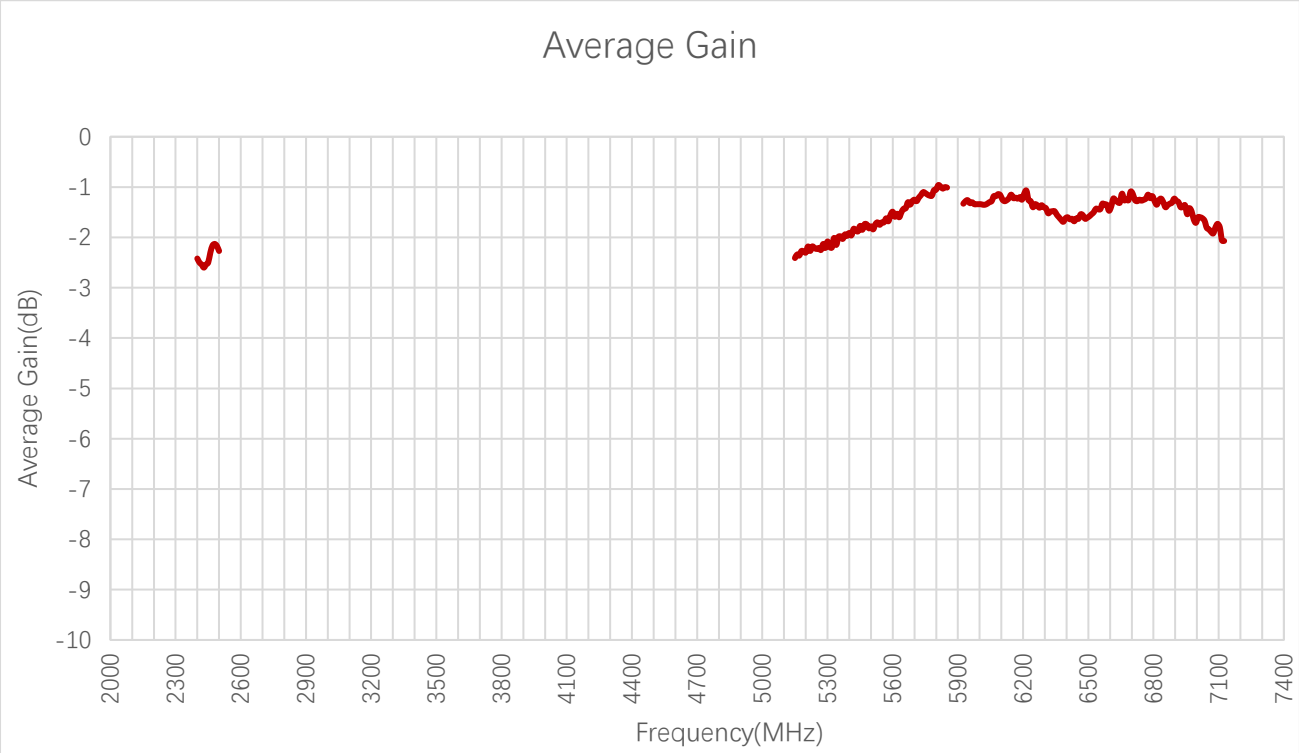
3.2.1. Efficiency



Efficiency (%) – Wi-Fi

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Efficiency (%)	57.3	56.3	59.3	57.4	66.3	79.2	73.6	70.9	74.4	62.0

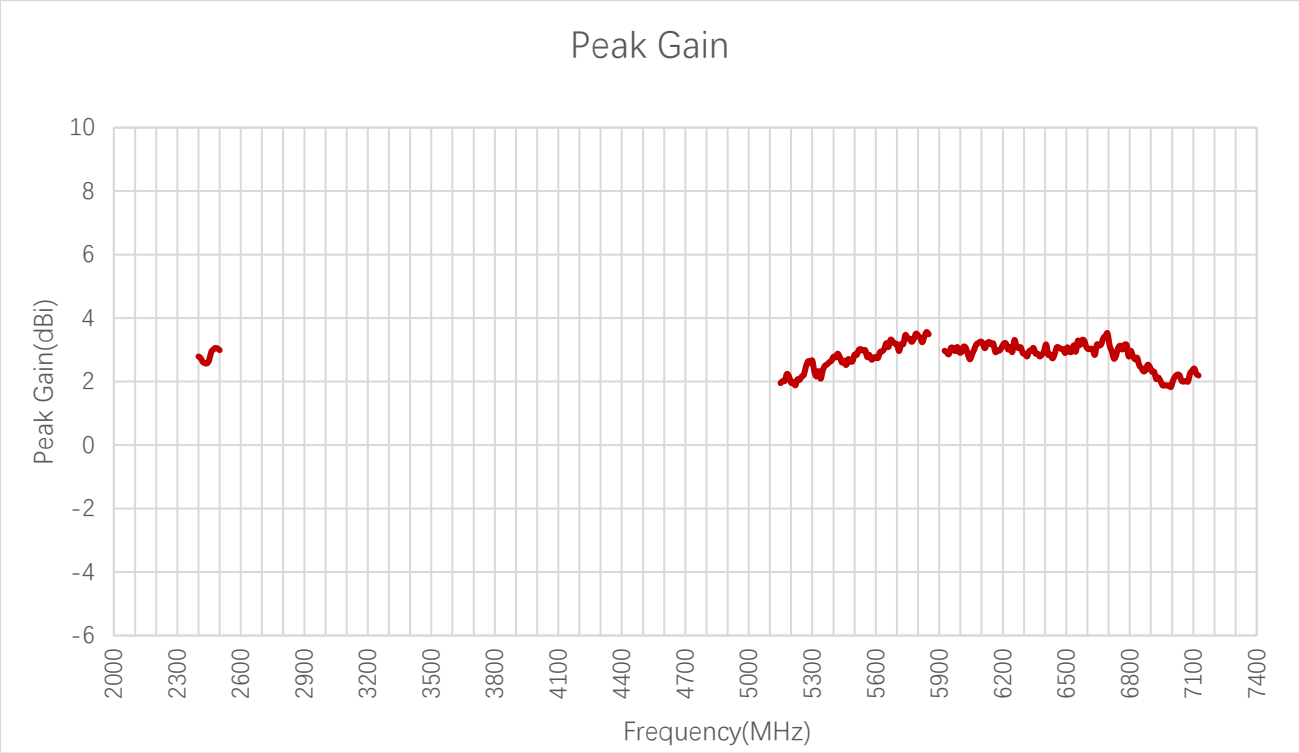
3.2.2. Average Gain



Average Gain (dB) – Wi-Fi

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Average Gain (dB)	-2.4	-2.5	-2.3	-2.4	-1.8	-1.0	-1.3	-1.5	-1.3	-2.1

3.2.3. Peak Gain

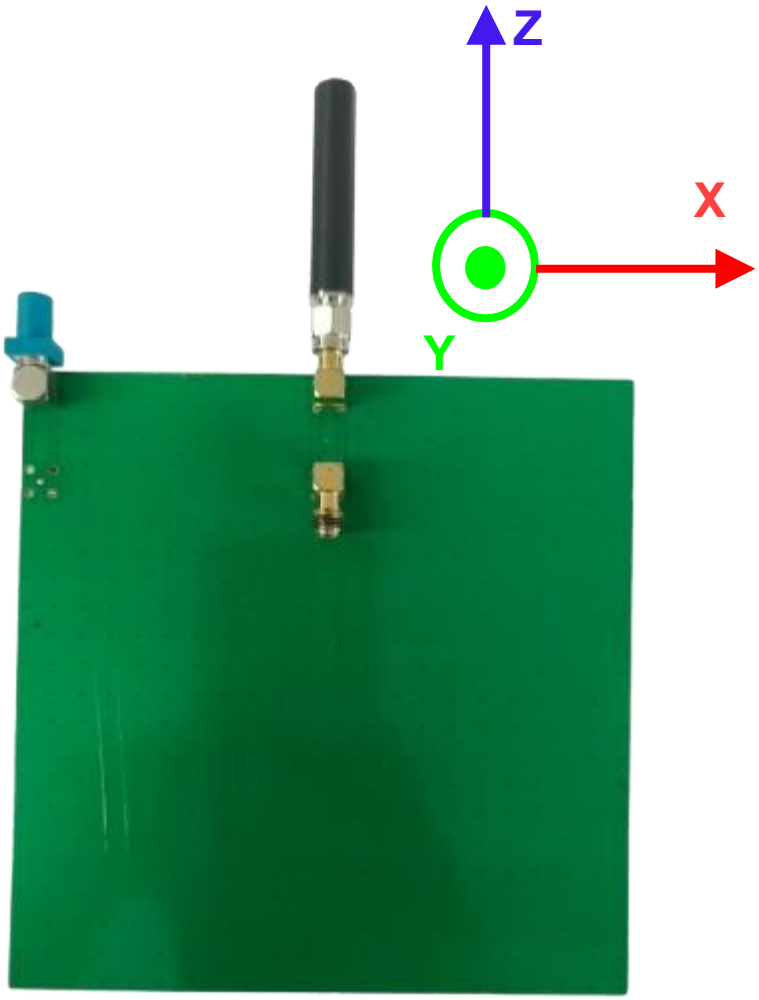


Peak Gain (dBi) – Wi-Fi

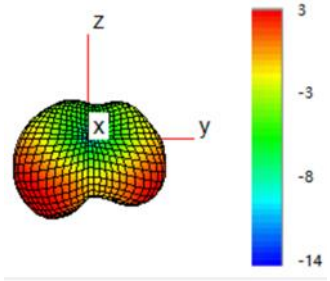
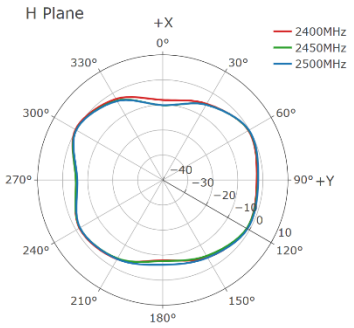
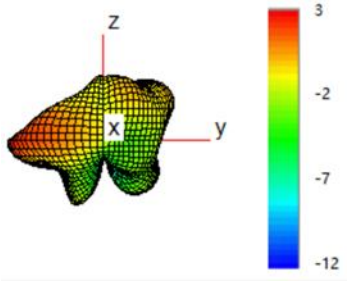
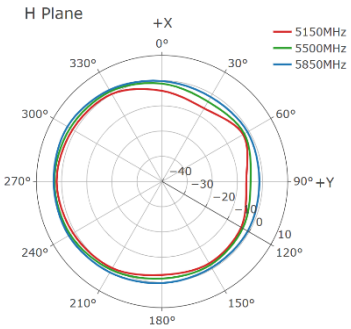
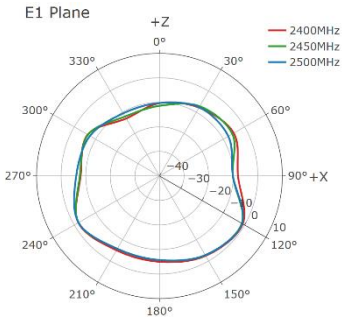
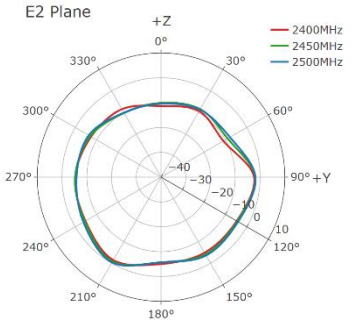
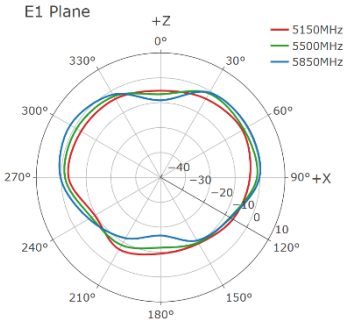
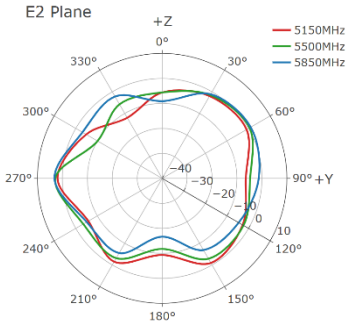
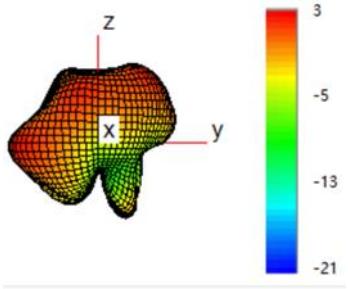
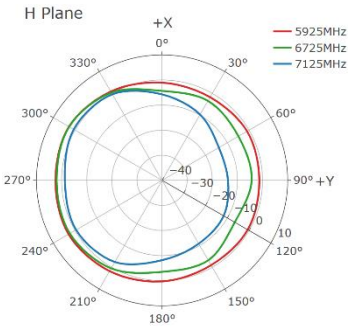
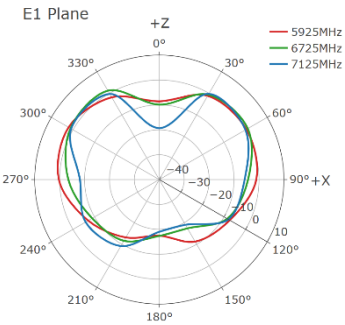
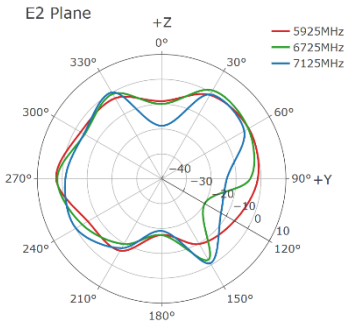
Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Peak Gain (dBi)	2.8	2.7	3.0	2.0	2.9	3.5	3.0	3.0	2.7	2.2

3.2.4. 3D & 2D Radiation Pattern

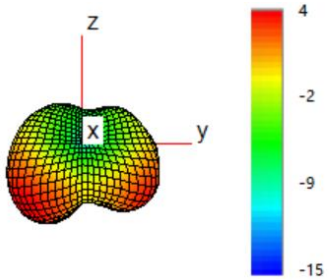
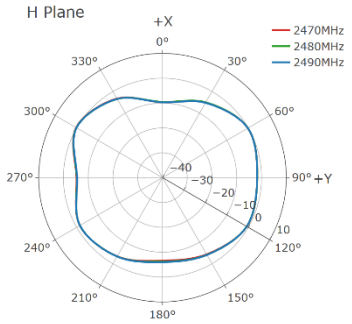
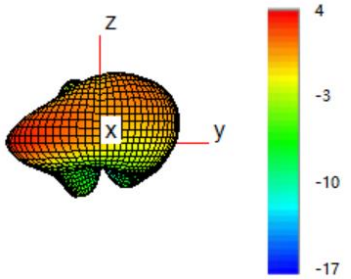
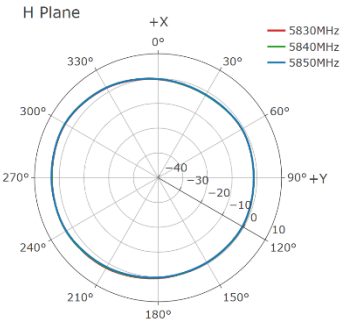
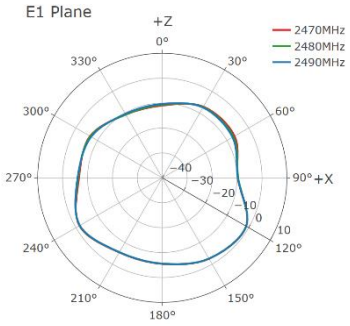
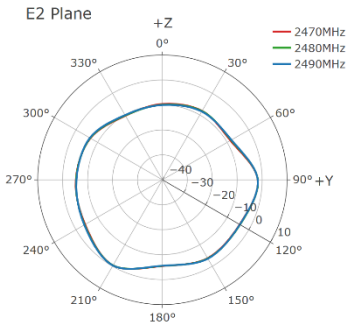
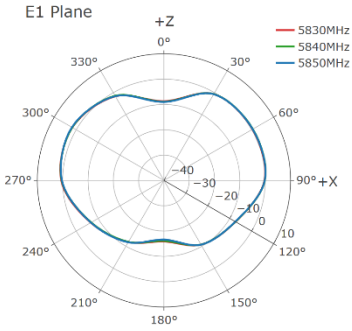
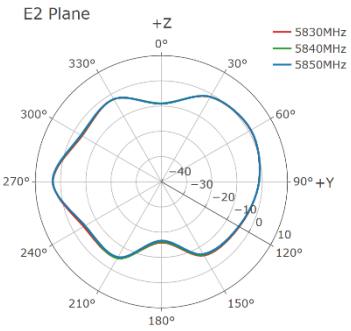
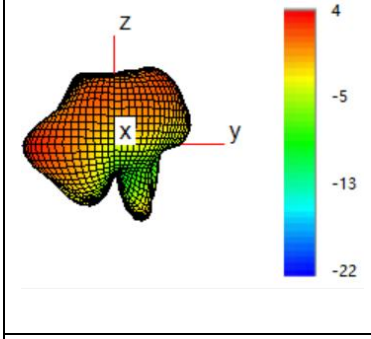
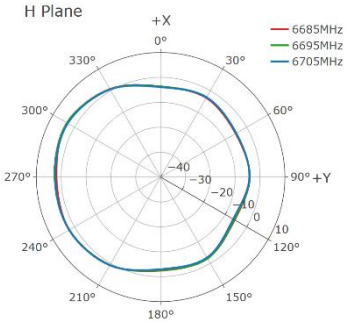
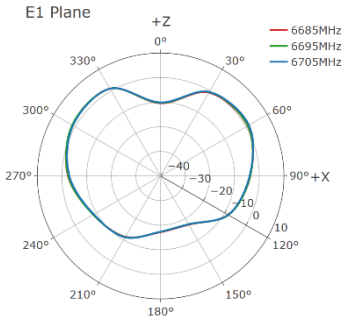
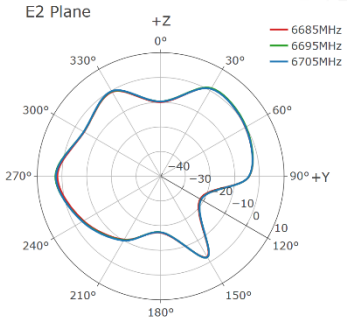
- Test Condition: On 130 mm × 130 mm EVB
- Test Chamber: HF–G–1



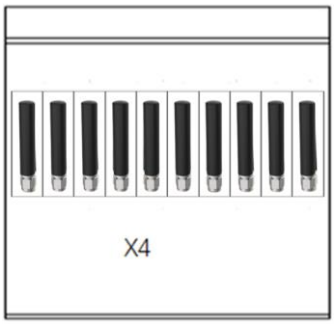
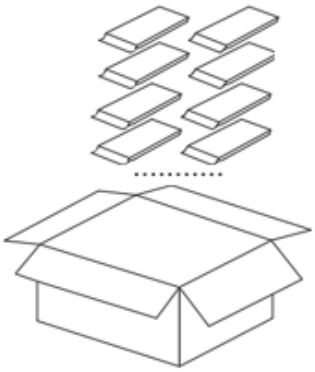
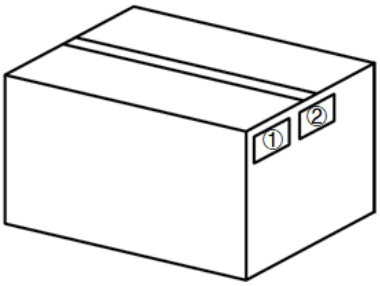
- **Wi-Fi**

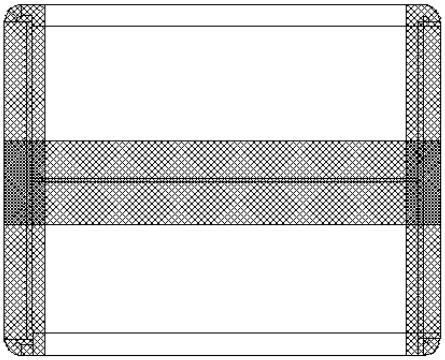
2450 MHz		5500 MHz	
			
			
6725 MHz			
			
			

- **Max Peak Gain**

2480 MHz		5840 MHz	
			
			
6695 MHz			
			
			

4 Packaging

Step	Packaging Picture / 2D Picture	Description
1		10 antenna products in a one-piece bag. (10 Antennas / One-piece Bag)
2		40 antenna products in a PE bag. (40 Antennas / PE Bag)
3		(25 PE Bags / Carton Box) (1000 Antennas / Carton Box) Estimated quantity Products that cannot fill the entire carton box are packed in a suitable size carton box. Carton Size: L × W × H = 405 × 293 × 185 mm
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:
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Revision History

Version	Date	Author	Note
-	2025-08-21	Kane Liu/ Steven Mo Riva Ren/ Rainey Liao	Creation of the document
1.0	2025-08-21	Kane Liu/ Steven Mo Riva Ren/ Rainey Liao	First official release
1.1	2026-01-12	Steven Mo	Updated the waterproof rating to IP65 (Chapter 1.2).
1.2	2026-08-03	Steven Mo	Updated the drawing (Chapter 2).



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