Antenna Datasheet

Product OC: YENT065W1BM
Version: 1.0
Date: 2026-02-03
Status: Released

Product Name: LPWA/ISM Terminal Mount Rubber Dipole External Antenna

Key Features:

Frequency Band: 850–950 MHz
Dimensions: 135 mm × 15.6 mm × 13 mm
Efficiency: Up to 62 % (EVB)
RoHS Compliant

Overview

YENT065W1BM is an ISM external antenna measuring 135 mm × 15.6 mm × 13 mm. This ultra-wide-band ISM antenna provides broad coverage from 850–950 MHz. The antenna is terminated with SMA Male connector. 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 PC + ABS enclosure. It is compatible with Quectel's ISM series modules.

The antenna is designed as dipole type to work with various GND plane sizes or in free space for ease of integration with a hinged SMA Male connector to achieve the optimum position. Hinged structure helps to avoid other antennas or objects by rotating to different directions when mounted on terminals. This omni-directional antenna is ideally suited for security alerts, wireless data transmission, automated manufacturing, and many other IoT devices.

- **Typical applications include:**

✓ Security Alerts
✓ Wireless Data-transmission
✓ Automated Manufacturing
✓ Industrial IoT

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.

Contents

1 Specification

Test Condition: Free Space & On 130 mm × 130 mm EVB

1.1. Electrical

Electrical	
Frequency Range	850–950 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional

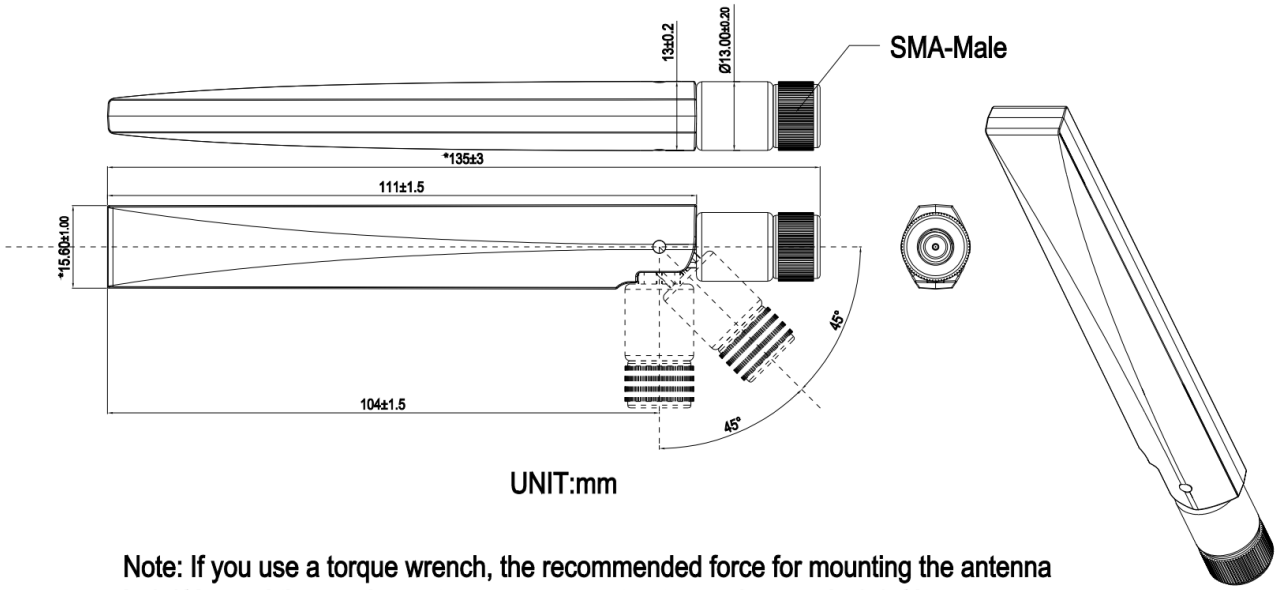
Band / Specification	Band	ISM
	Freq. (MHz)	850–950
Max. VSWR	FS	1.7
	EVB	3.7
Max. Return Loss (dB)	FS	-11.8
	EVB	-4.8
AVG Eff. (%)	FS	41.3
	EVB	52.7
AVG. AVG Gain (dB)	FS	-3.9
	EVB	-2.8
Max. Peak Gain (dBi)	FS	-0.8
	EVB	1.5
VSWR	FS	≤ 1.7
	EVB	≤ 3.7
Return Loss	FS	≤ -11.8 dB
	EVB	≤ -4.8 dB
Peak Gain	FS	≤ -0.8 dBi
	EVB	≤ 1.5 dBi

- **FS: Free Space.**
- **EVB: On 130 mm × 130 mm EVB.**

1.2. Mechanical & Environmental

Mechanical	
Antenna Dimensions	135 mm × 15.6 mm × 13 mm
Material & Color	PC + ABS & Black
Connector Type	SMA Male
Mounting Type	Terminal
Weight	Typ. 16 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
RoHS Compliant	Yes

2 Drawing



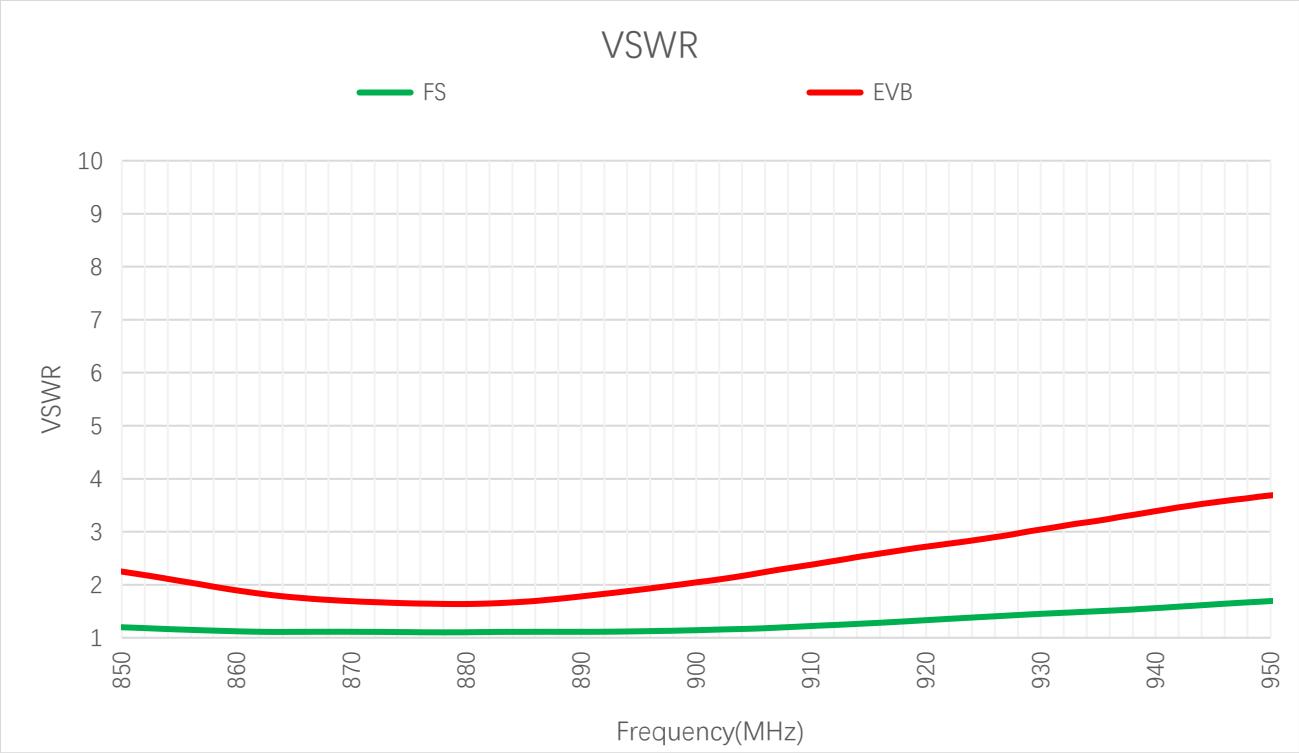
UNIT:mm

Note: If you use a torque wrench, the recommended force for mounting the antenna is 0.9Nm and the maximum torque to prevent antenna damage is 1.17Nm.

3 Detailed Performance

3.1. S-Parameter Test

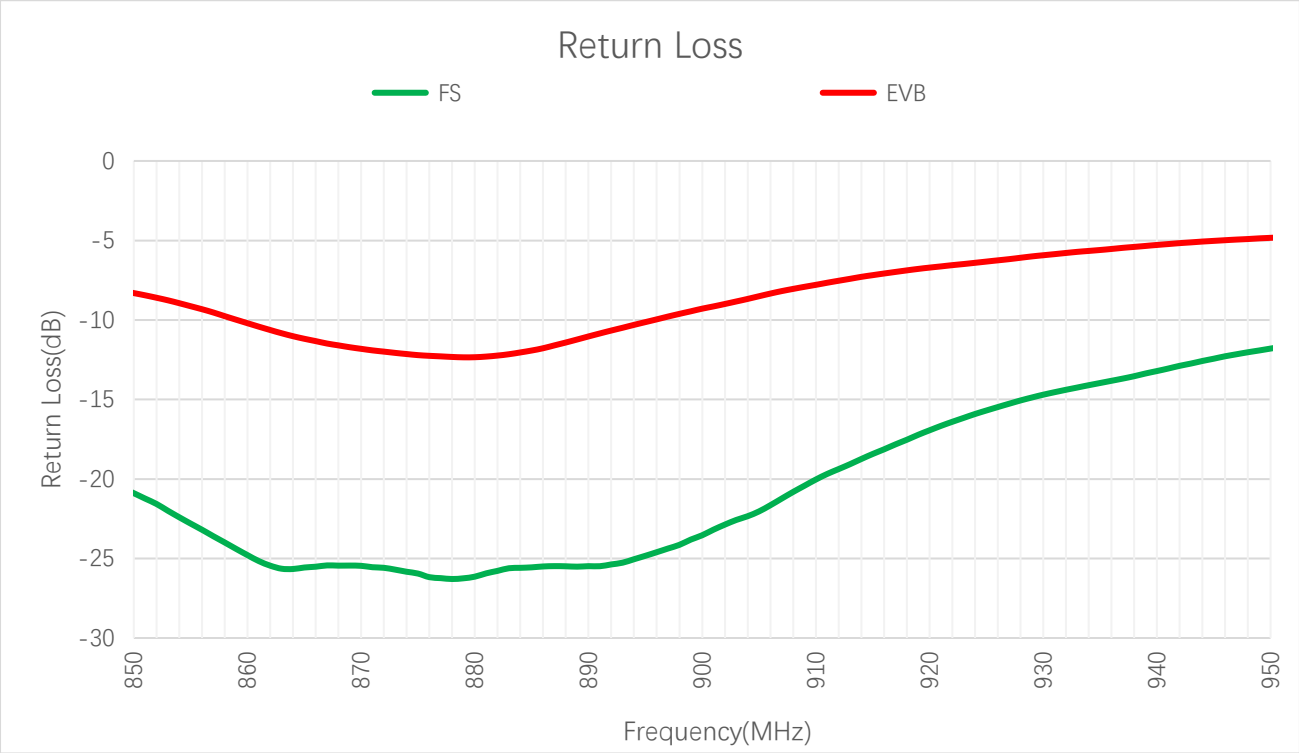
3.1.1. VSWR



VSWR

Frequency (MHz)	850	860	870	880	890	900	910	920	930	950
FS	1.2	1.1	1.1	1.1	1.1	1.1	1.2	1.3	1.5	1.7
EVB	2.2	1.9	1.7	1.6	1.8	2.0	2.4	2.7	3.0	3.7

3.1.2. Return Loss

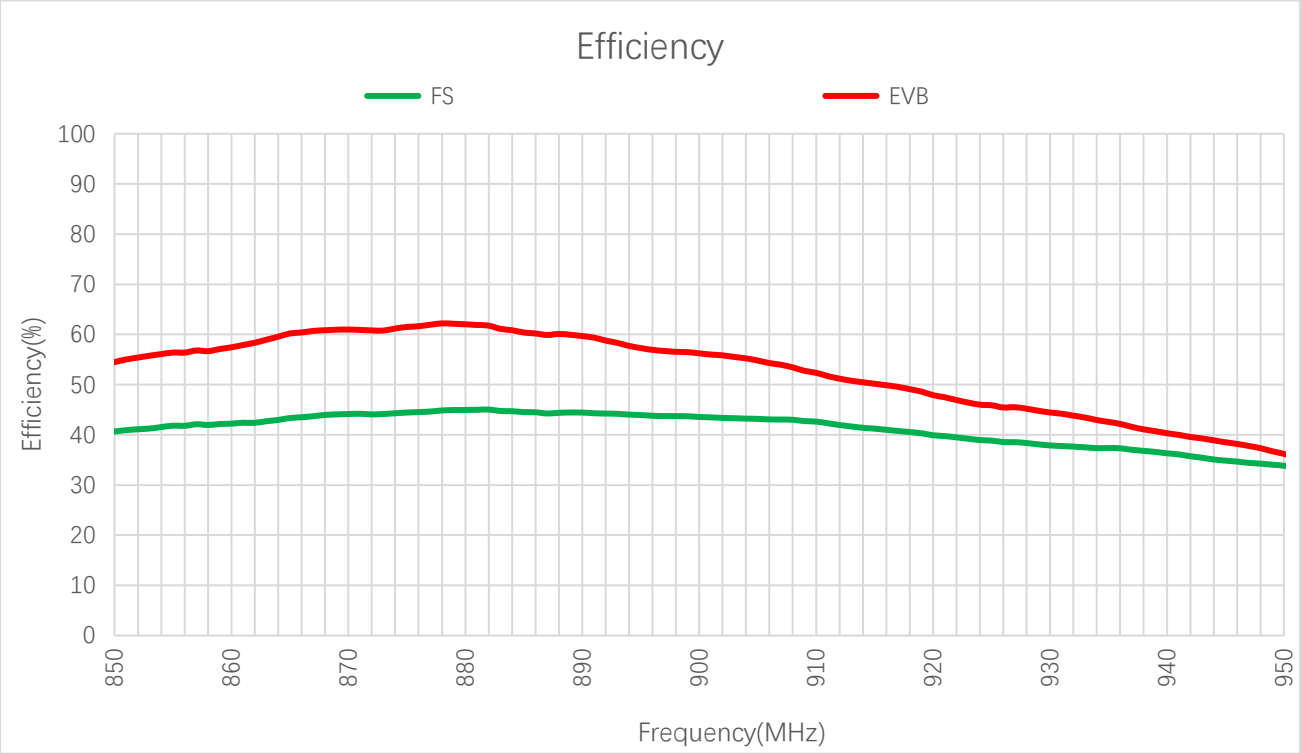


Return Loss (dB)

Frequency (MHz)	850	860	870	880	890	900	910	920	930	950
FS	-20.9	-24.8	-25.5	-26.1	-25.5	-23.5	-20.0	-16.9	-14.7	-11.8
EVB	-8.3	-10.2	-11.8	-12.3	-11.0	-9.3	-7.8	-6.7	-5.9	-4.8

3.2. Radiation Performance Test

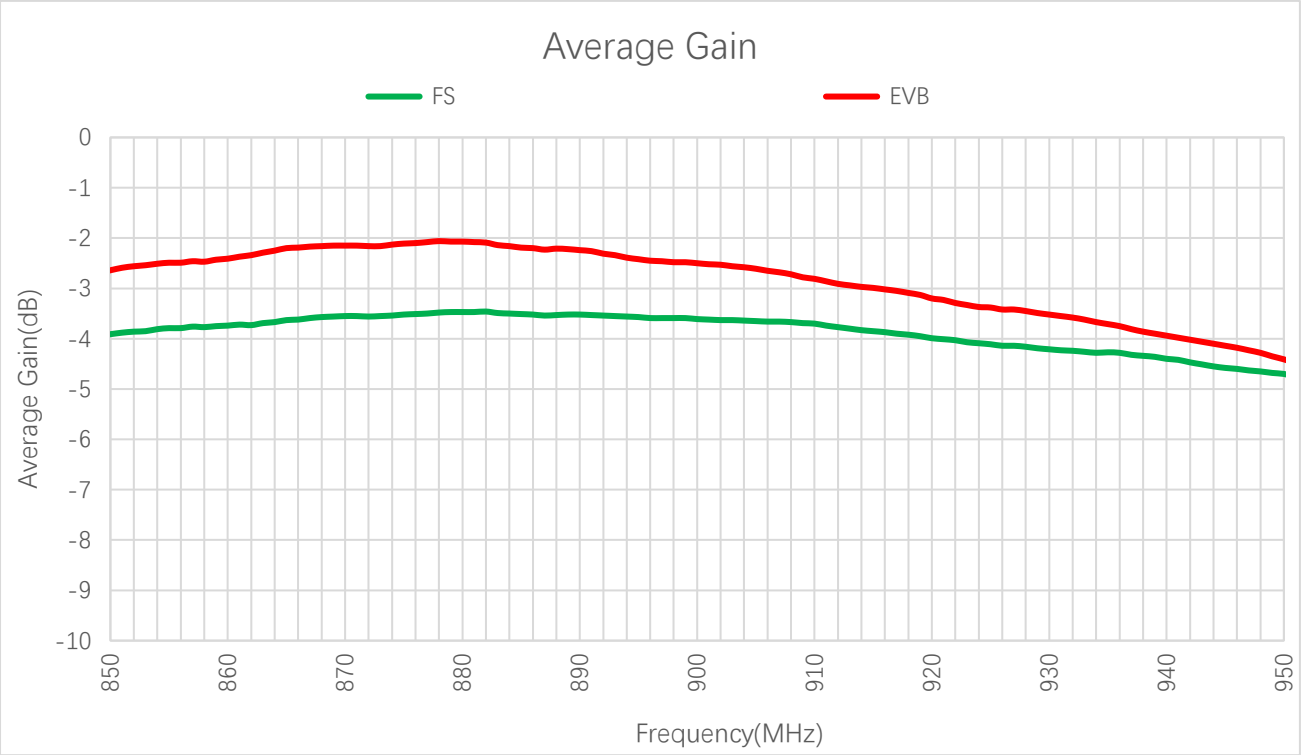
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	850	860	870	880	890	900	910	920	930	950
FS	40.7	42.2	44.2	45.0	44.4	43.6	42.6	39.9	37.9	33.9
EVB	54.5	57.4	61.0	62.0	59.7	56.2	52.4	47.9	44.5	36.2

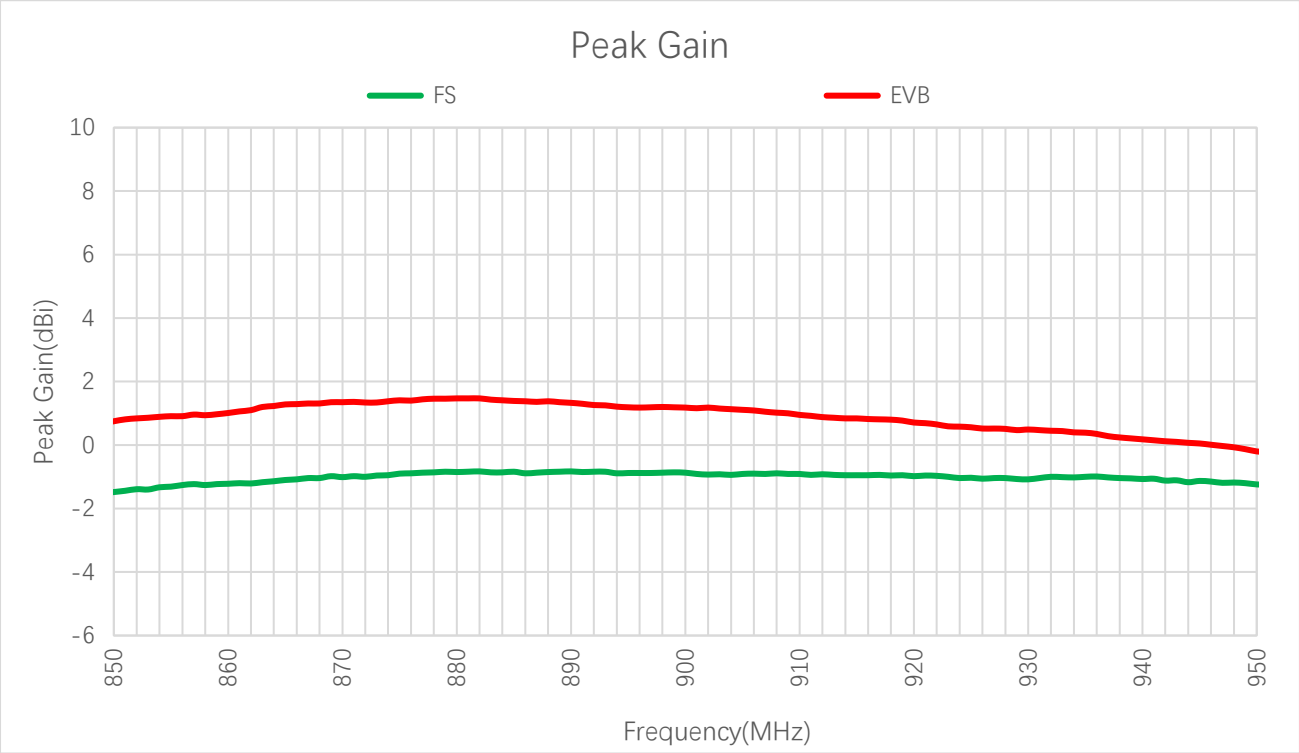
3.2.2. Average Gain



Average Gain (dB)

Frequency (MHz)	850	860	870	880	890	900	910	920	930	950
FS	-3.9	-3.7	-3.6	-3.5	-3.5	-3.6	-3.7	-4.0	-4.2	-4.7
EVB	-2.6	-2.4	-2.2	-2.1	-2.2	-2.5	-2.8	-3.2	-3.5	-4.4

3.2.3. Peak Gain



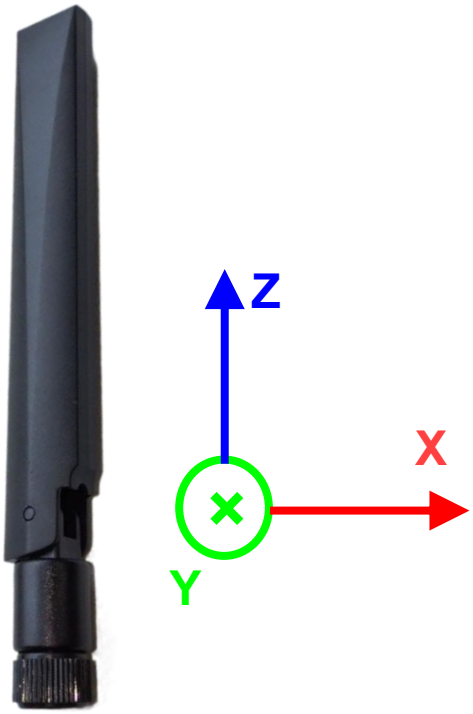
Peak Gain (dBi)

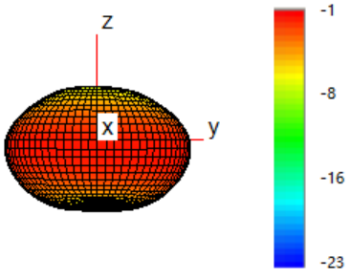
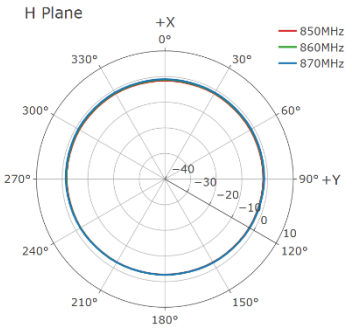
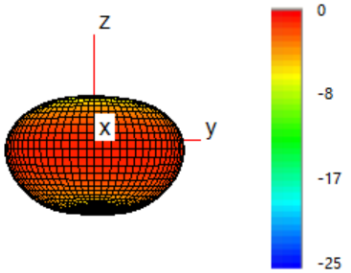
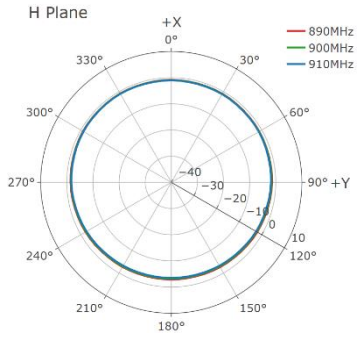
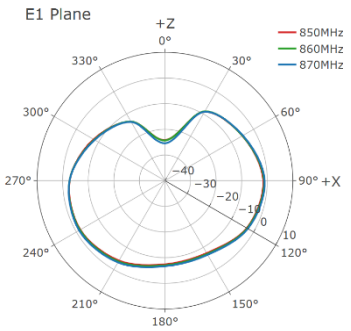
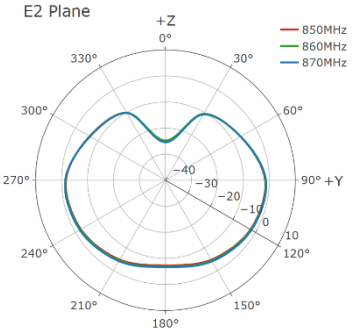
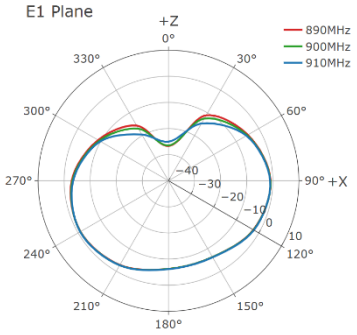
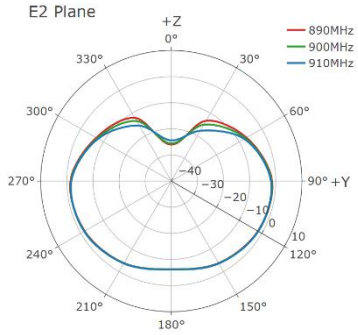
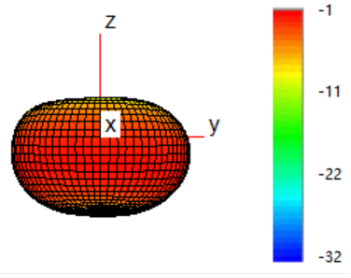
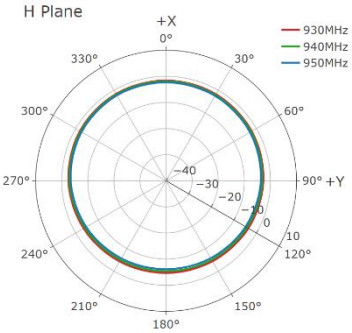
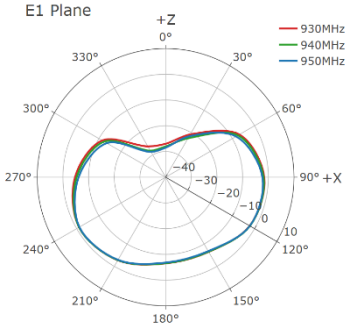
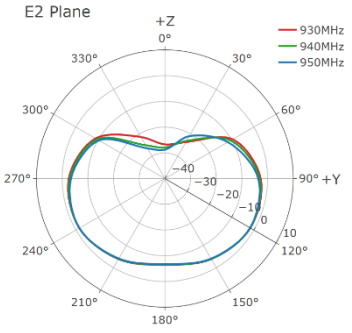
Frequency (MHz)	850	860	870	880	890	900	910	920	930	950
FS	-1.5	-1.2	-1.0	-0.9	-0.8	-0.9	-0.9	-1.0	-1.1	-1.2
EVB	0.8	1.0	1.4	1.5	1.3	1.2	1.0	0.7	0.5	-0.2

3.2.4. 3D & 2D Radiation Pattern

3.2.4.1. Test Condition: Free Space

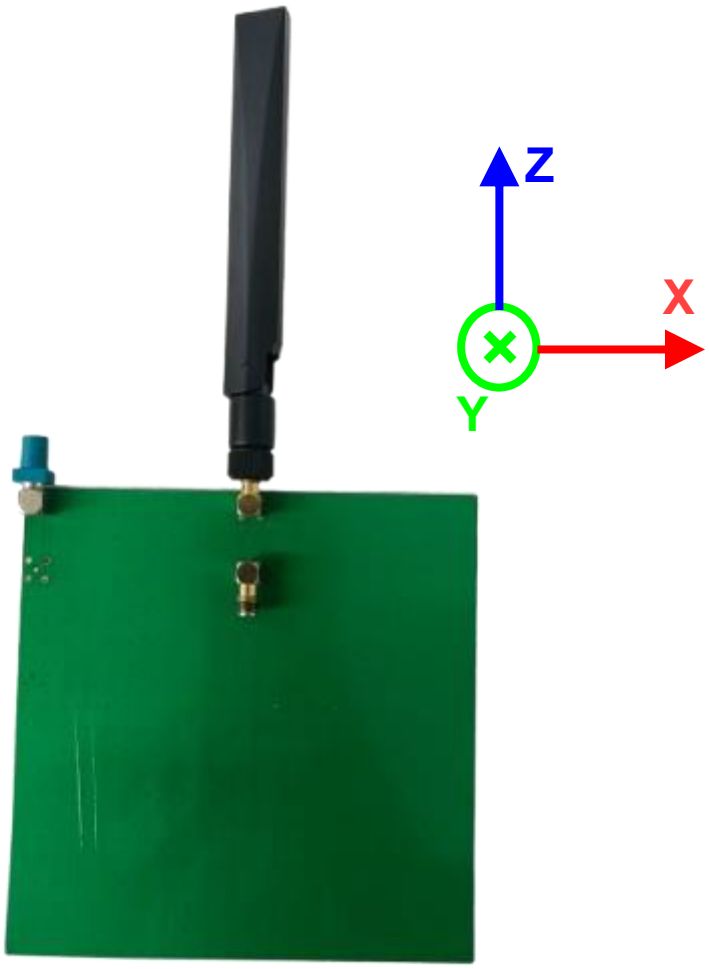
- Test Chamber: HF-G-1

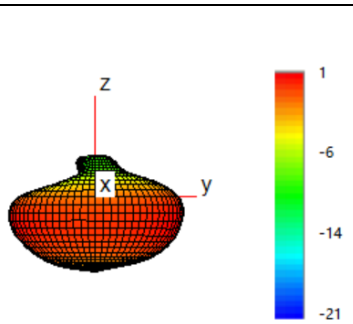
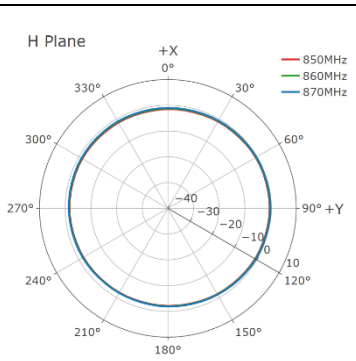
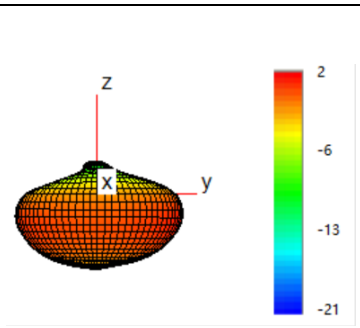
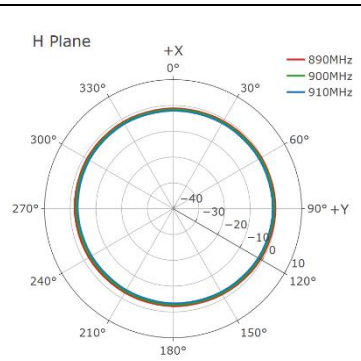
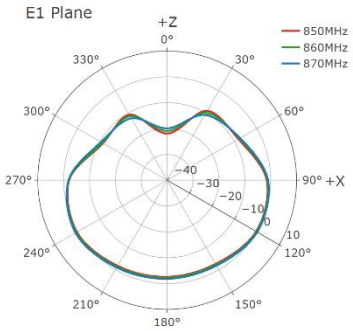
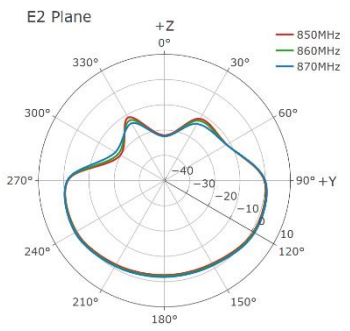
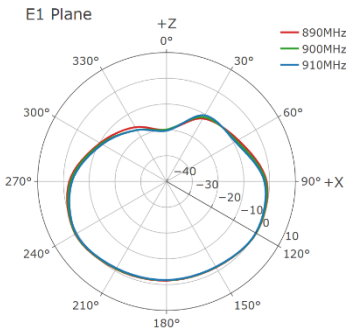
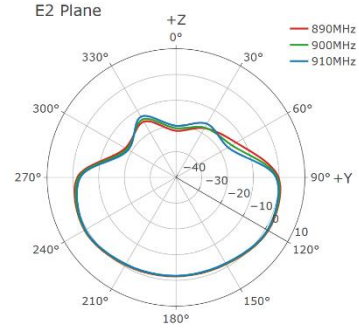
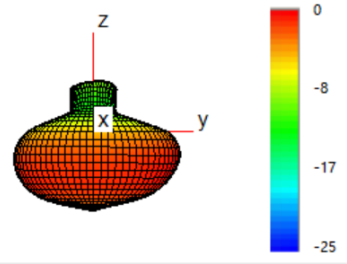
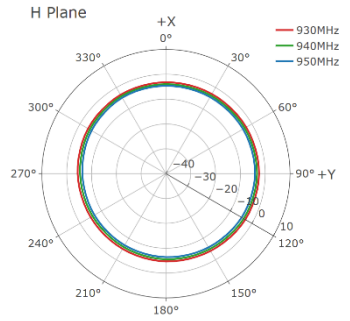
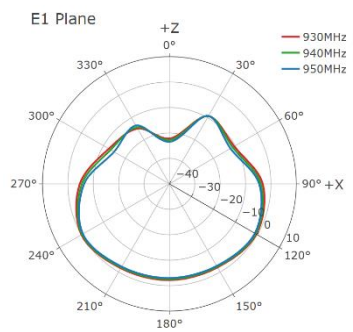
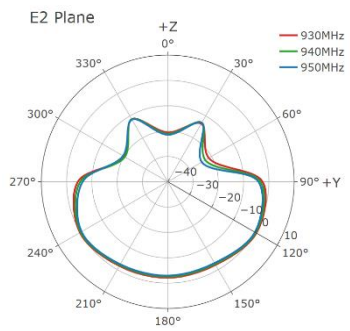


850 MHz		900 MHz	
			
			
950 MHz			
			
			

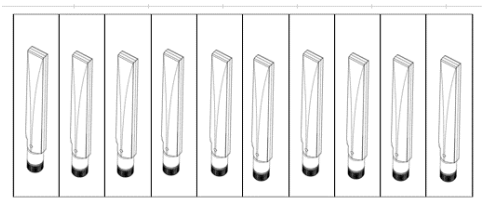
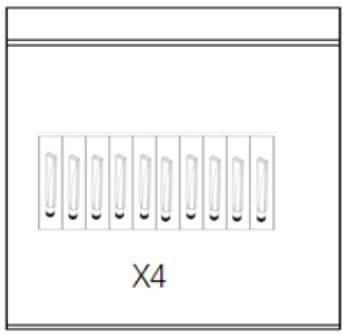
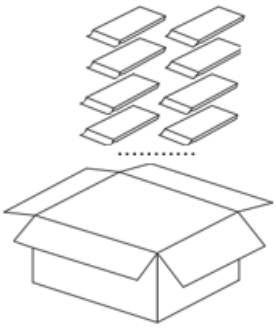
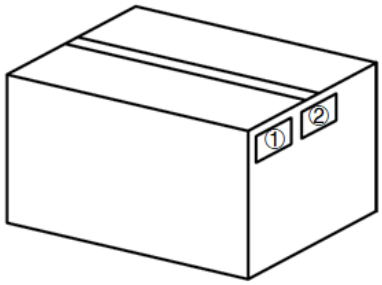
3.2.4.2. Test Condition: On 130 mm × 130 mm EVB

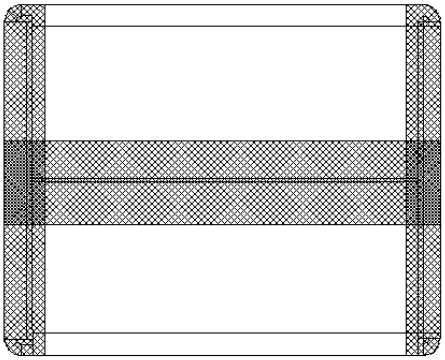
- Test Chamber: HF-G-1



850 MHz		900 MHz	
			
			
950 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		(8 PE Bags / Carton Box) (320 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 = 325 × 325 × 200 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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Revision History

Version	Date	Author	Note
-	2026-02-03	Kane Liu/ Lance Sun/ Riva Ren/ Rainey Liao	Creation of the document
1.0	2026-02-03	Kane Liu/ Lance Sun/ Riva Ren/ Rainey Liao	First official release

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