



Antenna Datasheet

Product OC: YEBT064W1AM

Version: 1.0

Date: 2025-08-27

Status: Released

Product Name: Wi-Fi Terminal Mount Rubber Monopole External Antenna

Key Features:

Frequency Band: 2400–2500 MHz & 5150–5850 MHz & 5925–7125 MHz

Dimensions: 135 mm × 15.6 mm × 13 mm

Efficiency: Up to 75 % (EVB)

RoHS & REACH Compliant

IP67

Compatible with FAKRA, TNC and N-Type connectors

Overview

YEBT064W1AM is a Wi-Fi external antenna measuring 135 mm × 15.6 mm × 13 mm. This ultra-wide-band Wi-Fi antenna provides broad coverage from 2400–2500 MHz & 5150–5850 MHz & 5925–7125 MHz. The antenna is terminated with SMA Male connector, also supports N male, TNC male, Fakra male connectors. Ideal for applications where the antenna is required to be discrete, this low profile, terminal mount omni-directional antenna is easy to install with maximum durability assured thanks to its IP67 rated and PC+ABS enclosure. It is compatible with Quectel's Wi-Fi 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 Wi-Fi, WLAN, Zigbee, Bluetooth, and 802.11a/b/g/n/ac applications, Wi-Fi application points and routers, offering great performance with its high gain and efficiency.

Typical applications include:

- Wi-Fi, WLAN, Zigbee, Bluetooth, and 802.11a/b/g/n/ac applications
- Wi-Fi application points and routers

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

Overview	1
Contents	2
1 Specification	3
1.1. Electrical.....	3
1.2. Mechanical & Environmental	4
2 Drawing	5
3 Detailed Performance	6
3.1. S-Parameter Test	6
3.1.1. VSWR	6
3.1.2. Return Loss.....	7
3.2. Radiation Performance Test.....	8
3.2.1. Efficiency.....	8
3.2.2. Average Gain.....	9
3.2.3. Peak Gain	10
3.2.4. 3D & 2D Radiation Pattern	11
3.2.4.1. Test Condition: Free Space.....	11
3.2.4.2. Test Condition: On 130 mm × 130 mm EVB	14
4 Packaging	17
Contact Us	19
Legal Notices	20
Revision History	22

1 Specification

Test Condition: Free Space & 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

Specification	Band	Band	Wi-Fi 2G	Wi-Fi 5G	Wi-Fi 6G
	Freq. (MHz)	2400–2500	5150–5850	5925–7125	
Max. VSWR	FS	1.3	2.6	2.2	
	EVB	1.4	3.3	2.7	
Max. Return Loss (dB)	FS	-18.7	-6.9	-8.4	
	EVB	-15.8	-5.5	-6.8	
AVG Eff. (%)	FS	52.2	55.7	50.5	
	EVB	72.5	47.8	46.5	
AVG AVG Gain (dB)	FS	-2.8	-2.6	-3.0	
	EVB	-1.4	-3.2	-3.3	
Max. Peak Gain (dBi)	FS	3.0 (2490)	4.1 (5730)	3.5 (5925)	
	EVB	2.7 (2440)	3.2 (5820)	3.4 (6925)	

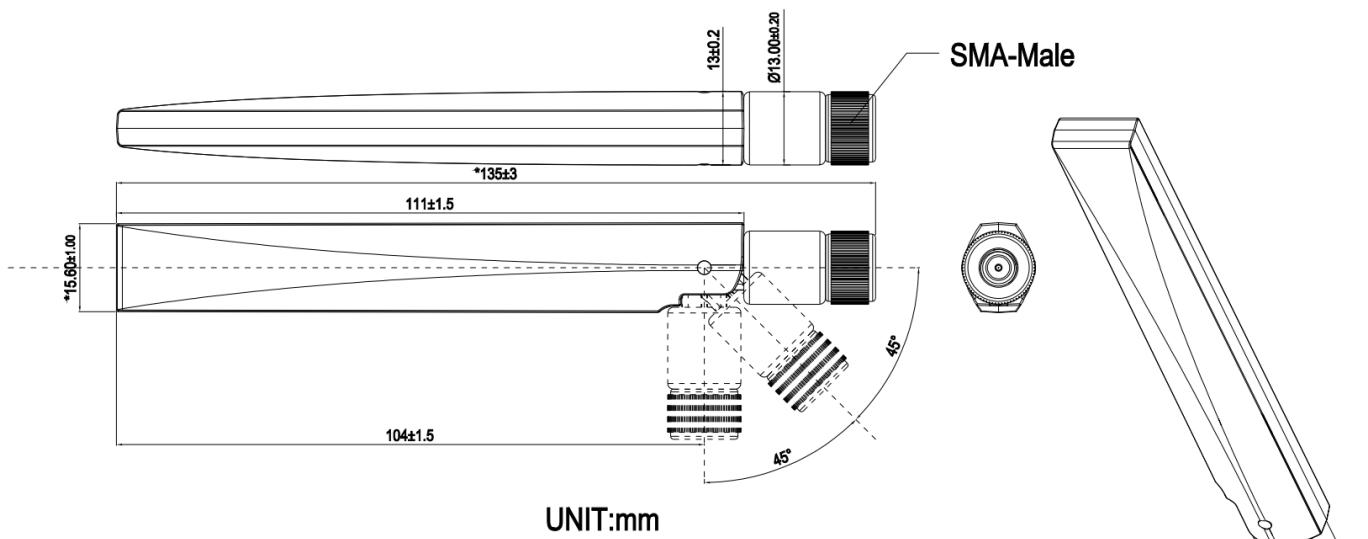
VSWR	FS	≤ 2.6
	EVB	≤ 3.3
Return Loss	FS	≤ -6.9 dB
	EVB	≤ -5.5 dB
Peak Gain	FS	≤ 4.1 dBi
	EVB	≤ 3.4 dBi

- **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. 17 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
Ingress Protection (IP) Rating	IP67 (After Installation)
RoHS & REACH Compliant	Yes

2 Drawing

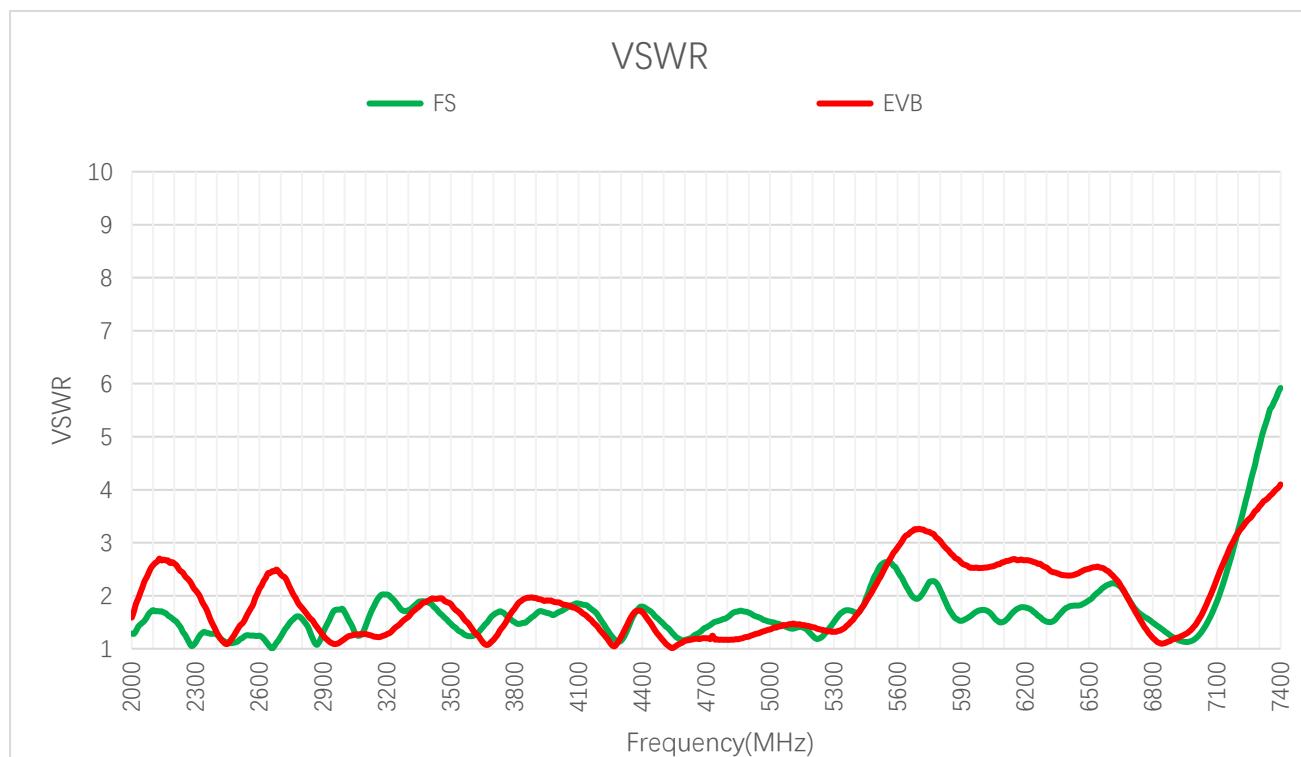


Note: If you use a torque wrench, the recommended force for mounting the antenna is 0.9Nm and the maximum torque to prevent antenna damage is 1.17Nm.

3 Detailed Performance

3.1. S-Parameter Test

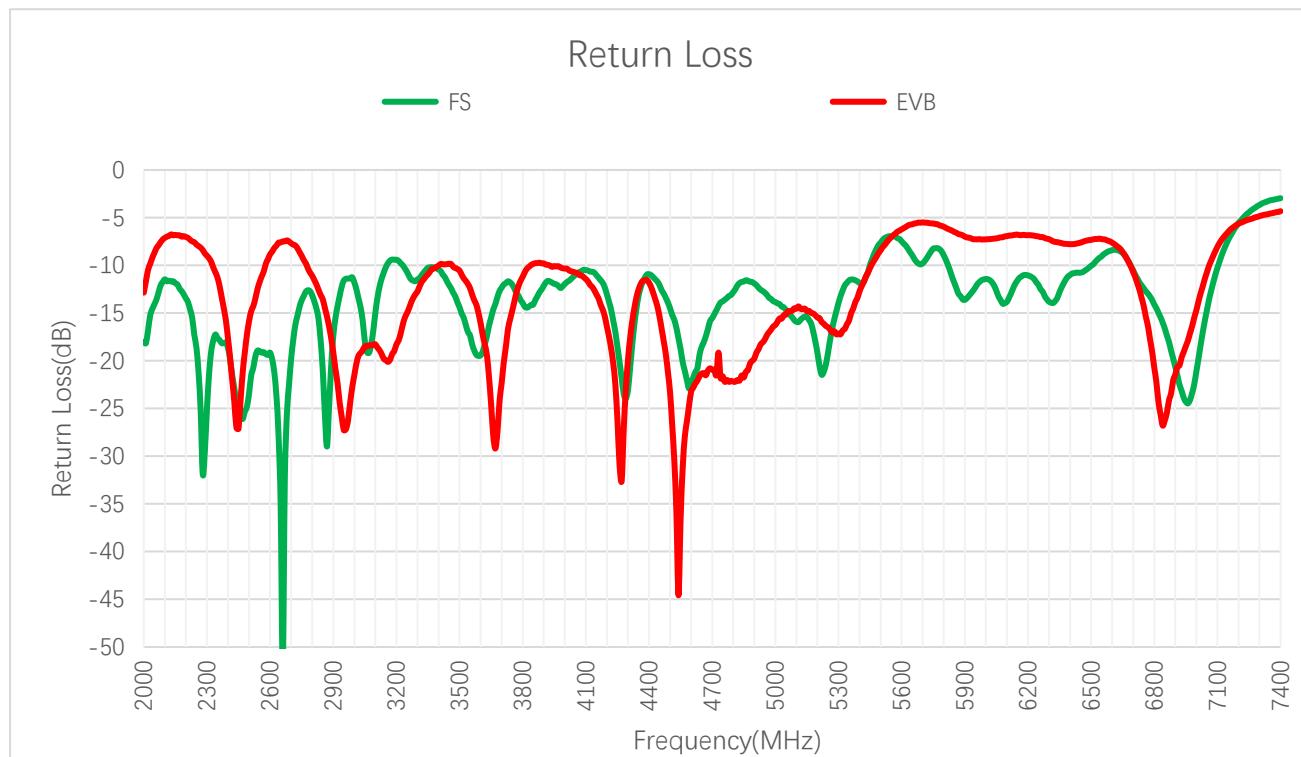
3.1.1. VSWR



VSWR

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
FS	1.3	1.1	1.1	1.4	2.4	1.7	1.6	1.5	1.7	2.1
EVB	1.3	1.1	1.4	1.4	2.2	2.8	2.6	2.5	1.7	2.5

3.1.2. Return Loss

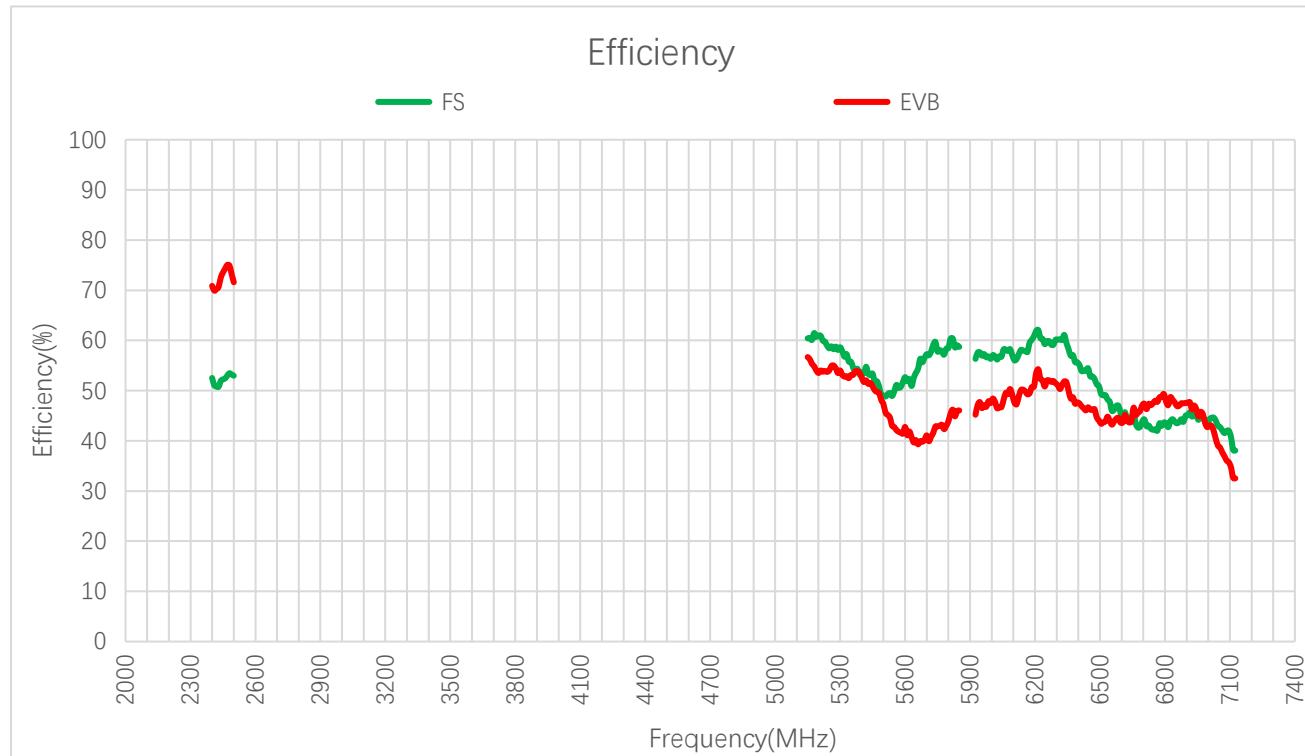


Return Loss (dB)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
FS	-18.7	-25.0	-23.4	-15.4	-7.6	-11.8	-13.2	-13.9	-11.4	-9.0
EVB	-17.7	-27.1	-15.8	-14.8	-8.4	-6.5	-7.1	-7.5	-11.9	-7.3

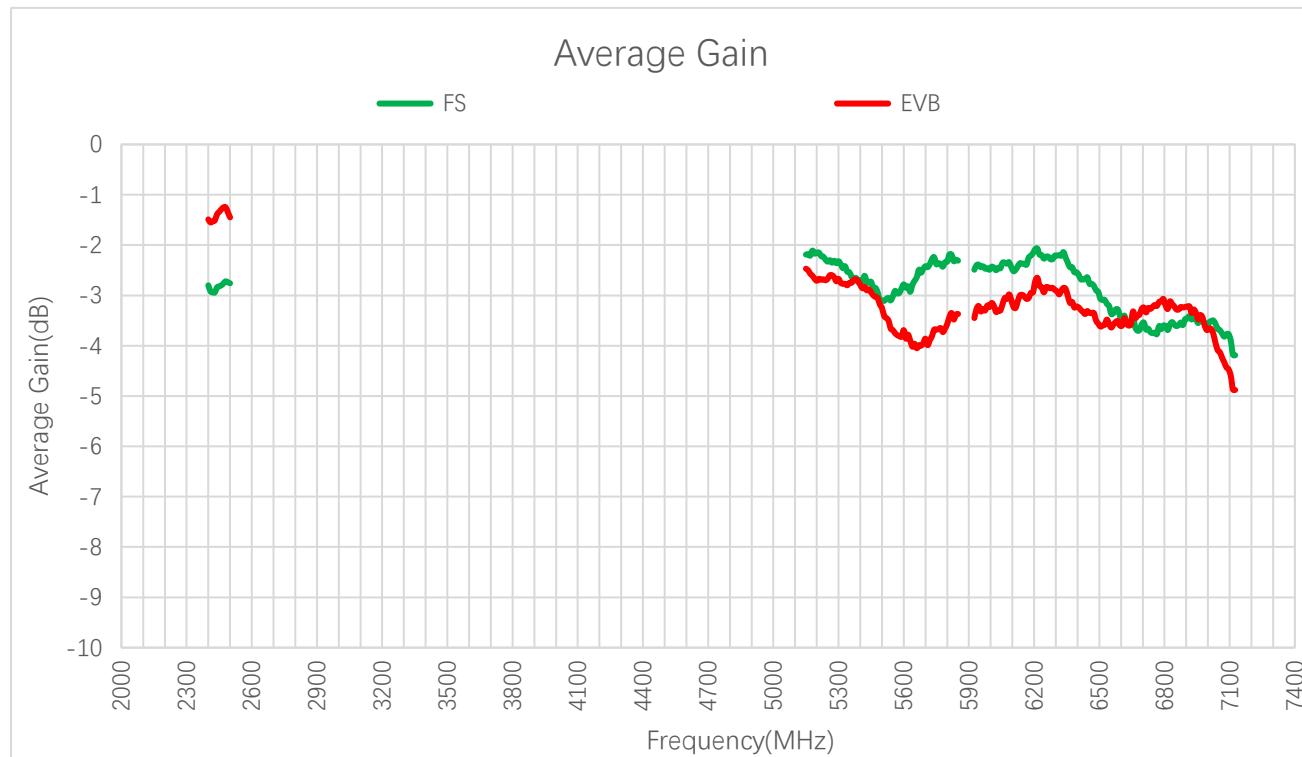
3.2. Radiation Performance Test

3.2.1. Efficiency



Efficiency (%)										
Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
FS	52.5	52.3	53.0	60.4	49.0	58.7	56.3	60.1	43.1	38.1
EVB	70.9	73.5	71.6	56.7	47.3	46.1	45.2	51.1	47.4	32.5

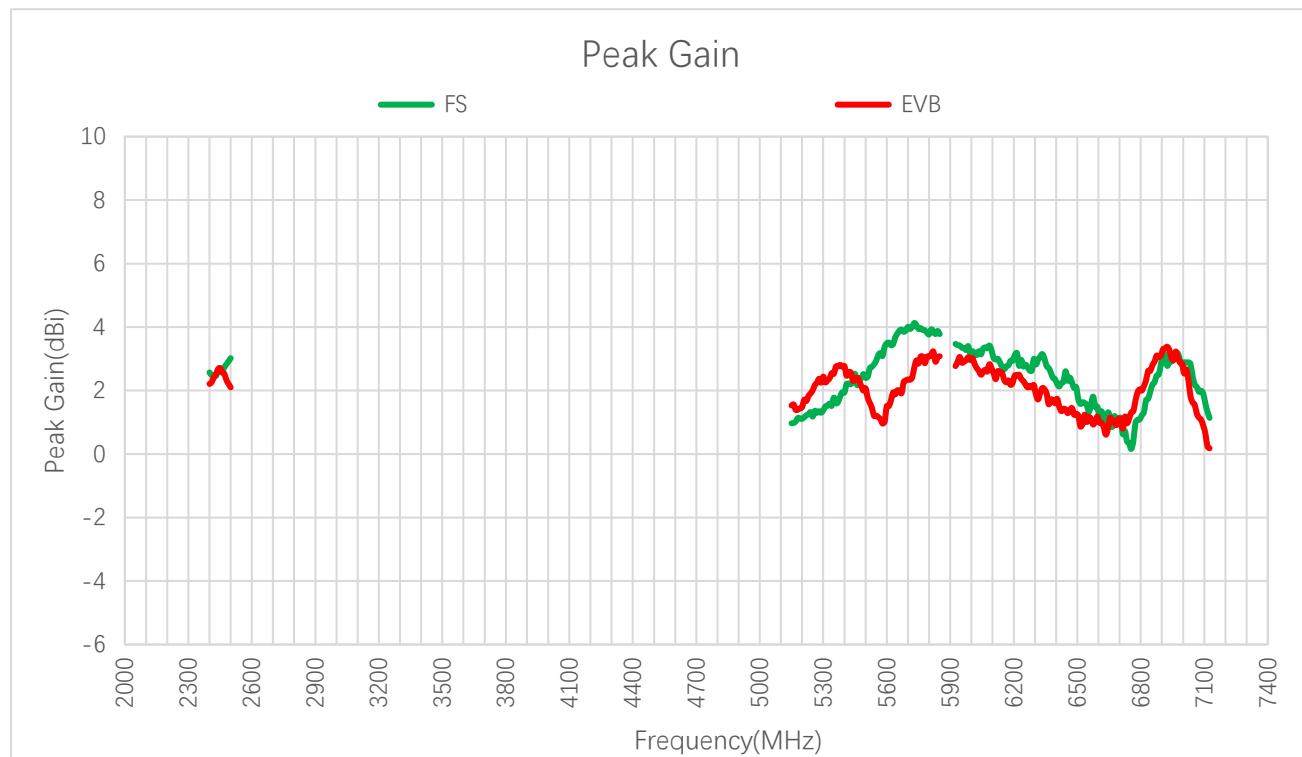
3.2.2. Average Gain



Average Gain (dB)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
FS	-2.8	-2.8	-2.8	-2.2	-3.1	-2.3	-2.5	-2.2	-3.7	-4.2
EVB	-1.5	-1.3	-1.5	-2.5	-3.3	-3.4	-3.5	-2.9	-3.3	-4.9

3.2.3. Peak Gain



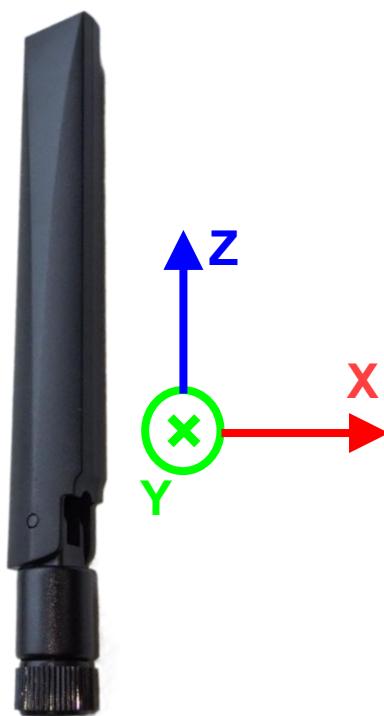
Peak Gain (dB)

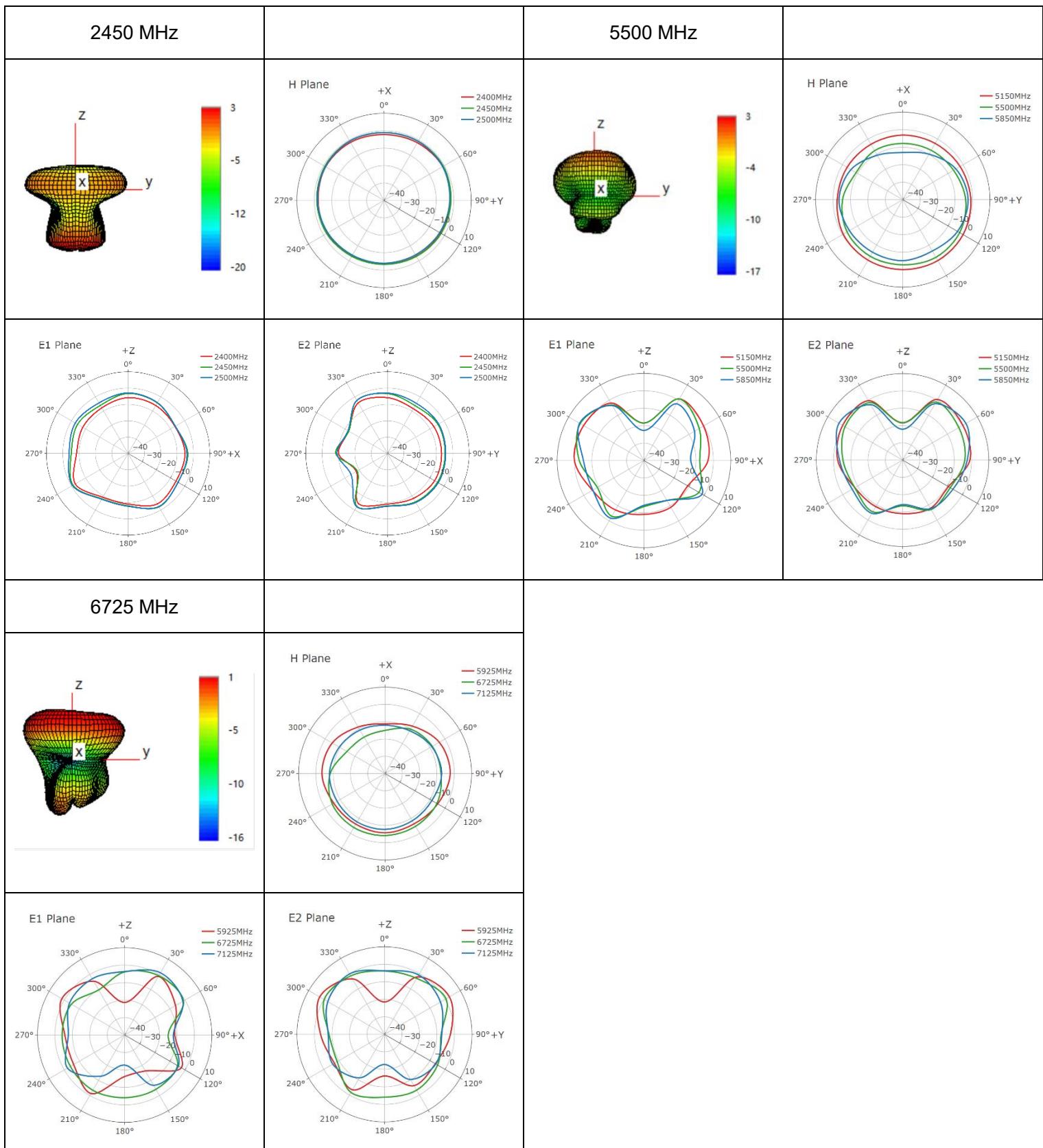
Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
FS	2.6	2.6	3.0	1.0	2.4	3.8	3.5	3.1	0.7	1.1
EVB	2.2	2.7	2.1	1.5	2.1	3.1	2.8	1.9	1.2	0.2

3.2.4. 3D & 2D Radiation Pattern

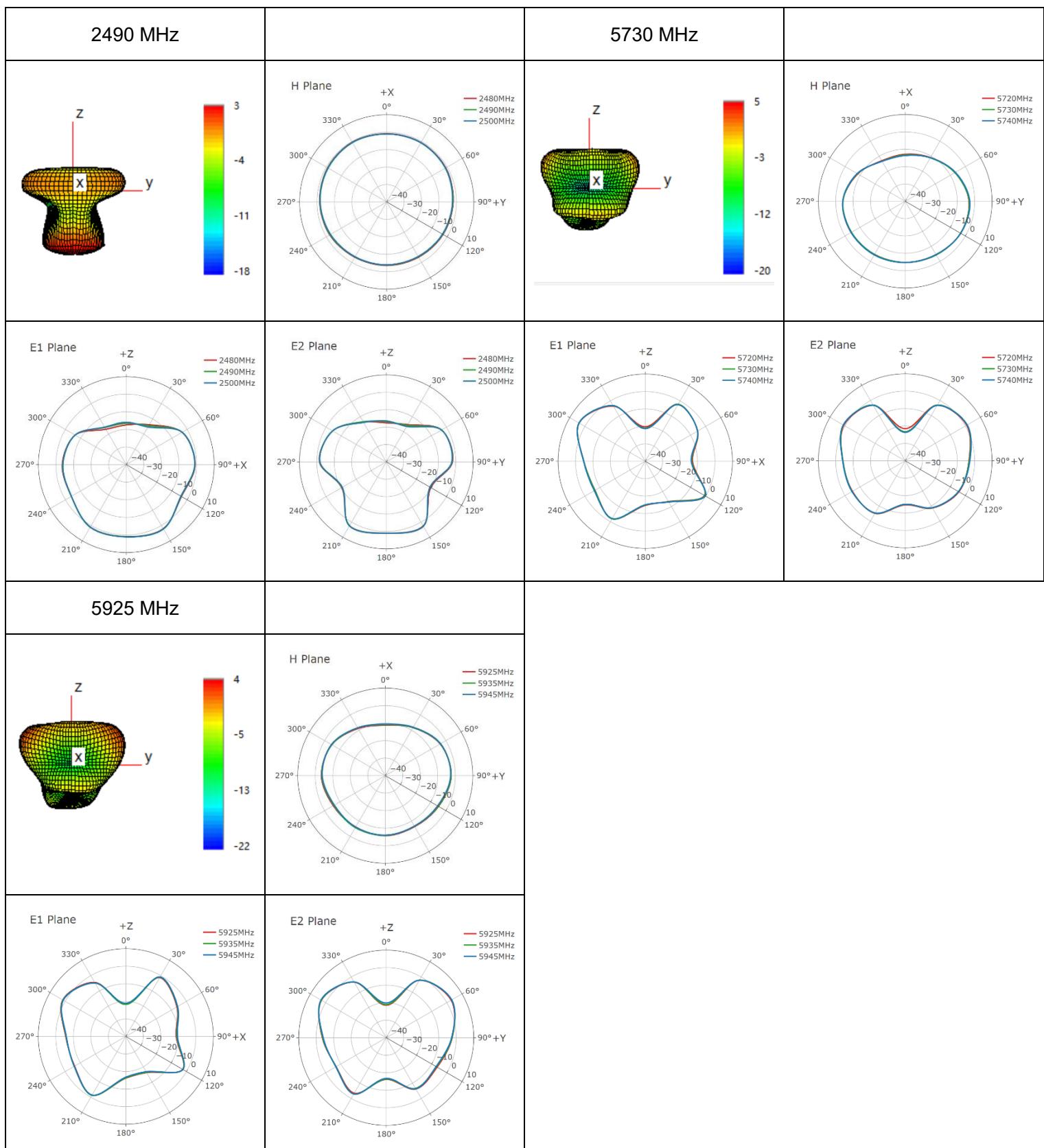
3.2.4.1. Test Condition: Free Space

- Test Chamber: HF-G-1



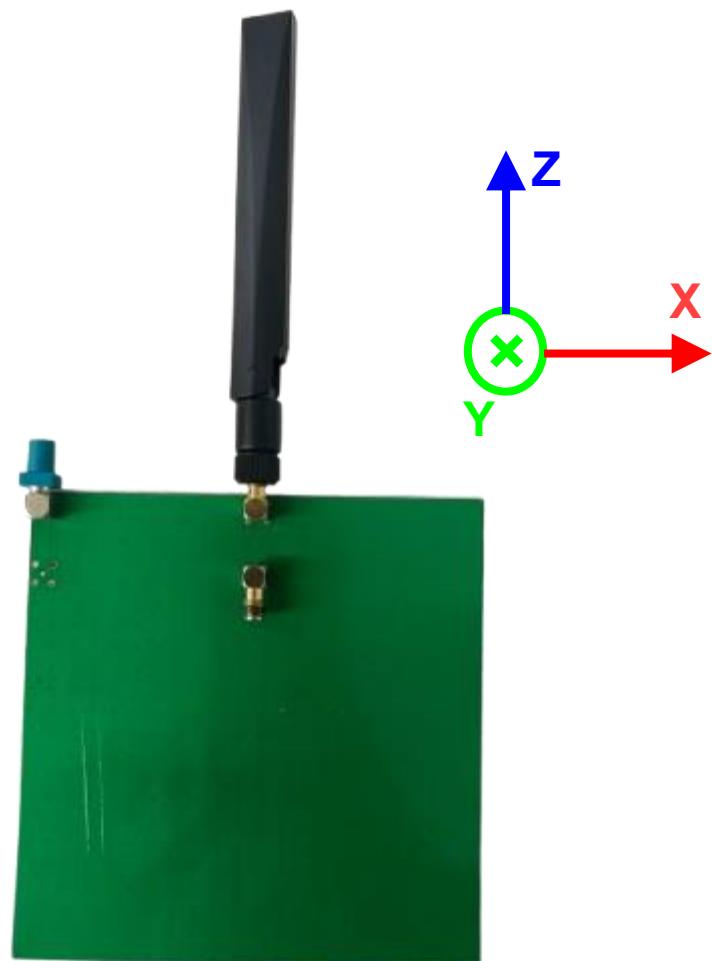


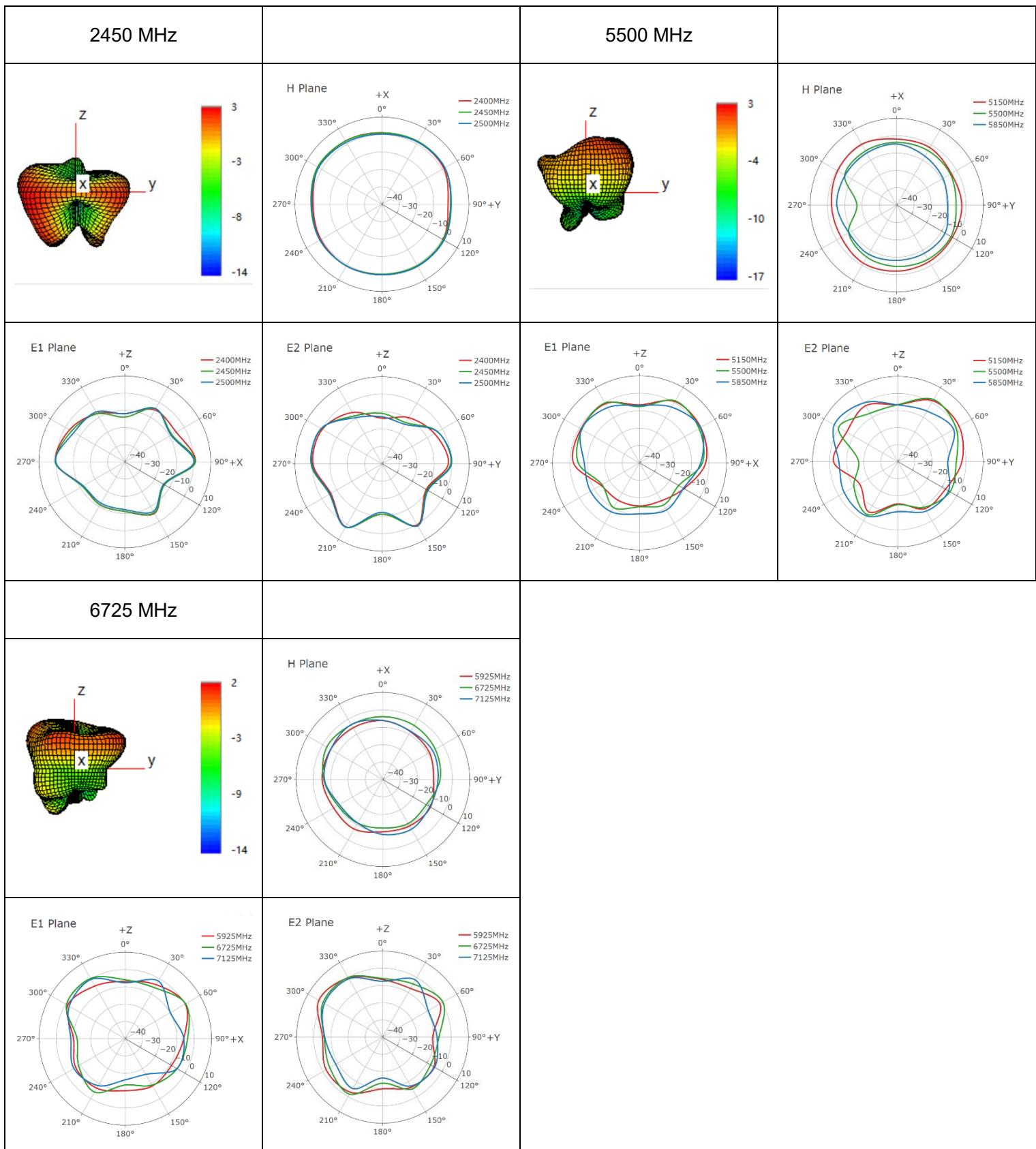
- Max Peak Gain



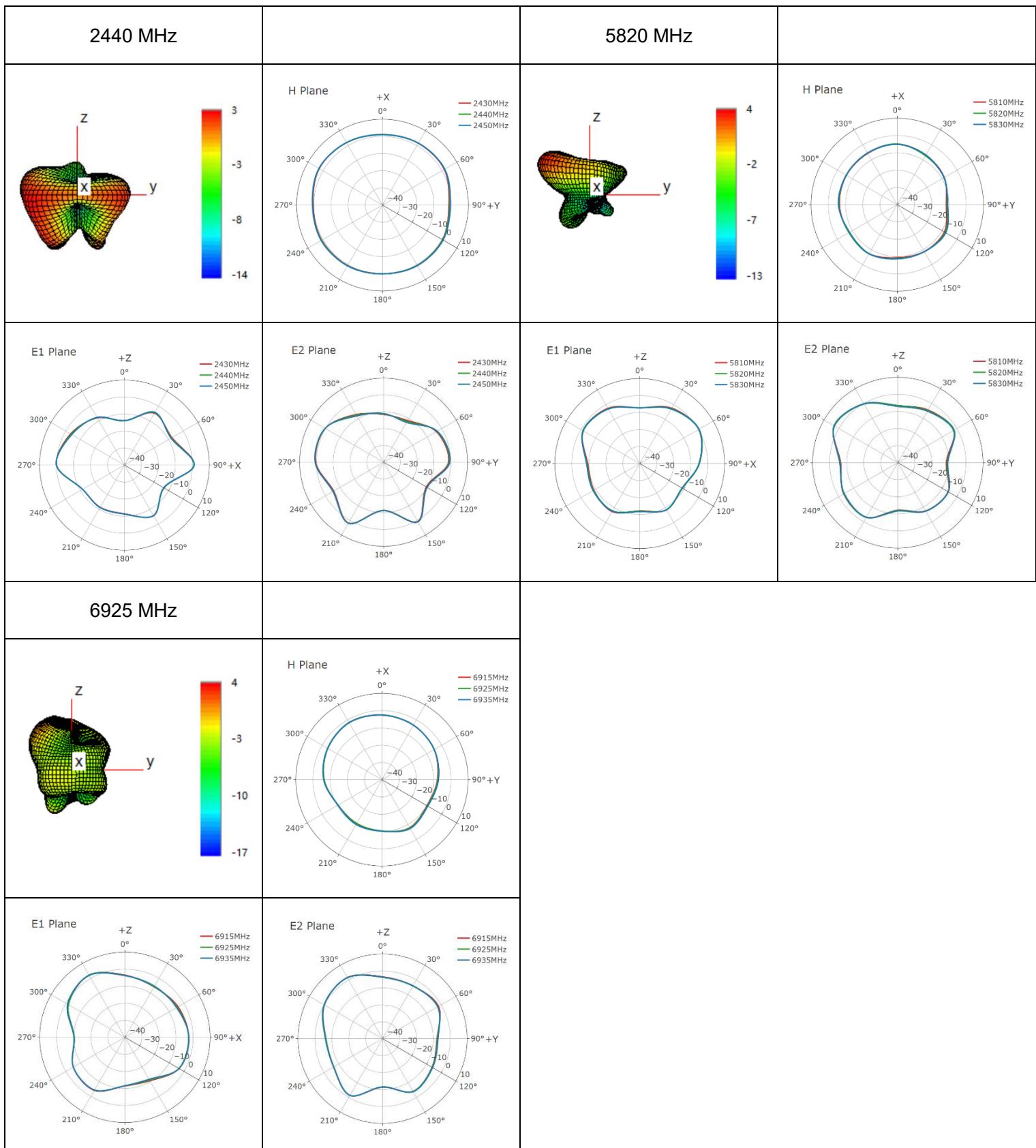
3.2.4.2. Test Condition: On 130 mm × 130 mm EVB

- Test Chamber: HF-G-1

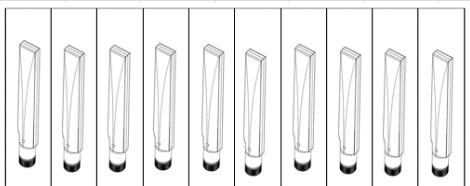
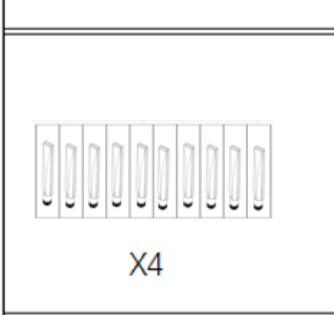
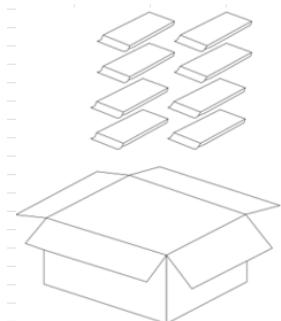
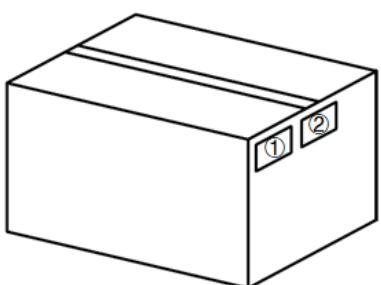


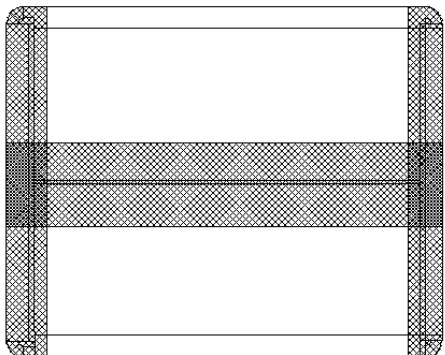


● Max Peak Gain



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 bags. (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. <u>Carton Size:</u> <u>$L \times W \times H = 325 \times 325 \times 200 \text{ mm}$</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:

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Revision History

Version	Date	Author	Note
-	2025-08-27	Kane Liu/ Lance Sun/ Riva Ren/ Rainey Liao	Creation of the document
1.0	2025-08-27	Kane Liu/ Lance Sun/ Riva Ren/ Rainey Liao	First official release



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