



Antenna Datasheet

Product OC: YECT006W1DC

Version: 1.0

Date: 2026-04-27

Status: Released

Product Name: 4G Terminal Mount Rubber Monopole Antenna

Key Features:

Frequency Band: 698–960 MHz, 1710–2690 MHz

Dimensions: 17 mm × Φ 9.4 mm × 43 mm

Efficiency: Up to 50.8 %

RoHS Compliant

Overview

YECT006W1DC is a 4G rubber antenna measuring 17 mm × Φ 9.4 mm × 43 mm. This ultra-wide-band 4G antenna provides broad coverage from 698–960 MHz, 1710–2690 MHz whilst offering backward-compatibility to support 3G and 2G networks as well as LTE Cat-M and narrowband IoT (NB-IoT). 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 TPE enclosure. It is compatible with Quectel's 4G Series modules.

It allows constant and reliable transmission and reception due to its omni-directional gain across all frequency bands. YECT006W1DC 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 Zigbee, Bluetooth, IoT Sensors, public safety and security, point of sales terminals, smart home automation, robotics / autonomous.

- **Typical applications include:**

- ✓ Zigbee
- ✓ Bluetooth
- ✓ 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.

Contents

Overview	1
Contents	2
1 Specification	3
1.1. Electrical	3
1.2. Supported Bands	4
1.3. Mechanical & Environmental	6
2 Drawing	7
3 Detailed Performance	8
3.1. S-Parameter Test	8
3.1.1. VSWR	8
3.1.2. Return Loss	9
3.2. Radiation Performance Test	10
3.2.1. Efficiency	10
3.2.2. Average Gain	11
3.2.3. Peak Gain	12
3.2.4. 3D & 2D Radiation Pattern	13
4 Packaging	15
Contact Us	17
Legal Notices	18
Revision History	20

1 Specification

Test Condition: Free Space

1.1. Electrical

Electrical	
Frequency Range	698–960 MHz, 1710–2690 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional
Antenna Type	Monopole

Electrical – Detail												
Band	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
SPEC	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		-	14.4	4.1	-	16.3	3.9	4.2	7.0	-	-	-
Max. Return Loss (dB)		-	-1.0	-4.3	-	-1.0	-4.5	-4.2	-2.5	-	-	-
AVG Eff. (%)		-	12.1	27.0	-	50.9	46.2	42.9	35.7	-	-	-
AVG AVG Gain (dB)		-	-10.9	-6.9	-	-5.6	-3.5	-4.2	-5.5	-	-	-
Max. Peak Gain (dBi)		-	-7.6	-3.0	-	1.1	0.4	-0.1	-0.2	-	-	-
VSWR						≤ 16.3						
Return Loss						≤ -1 dB						
Peak Gain						≤ 1.1 dBi						

1.2. Supported Bands

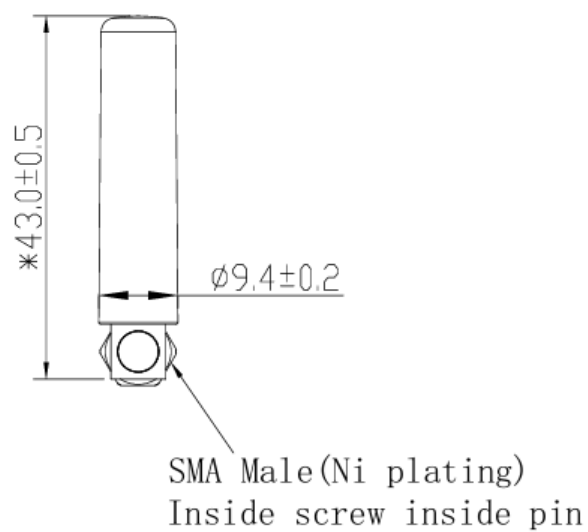
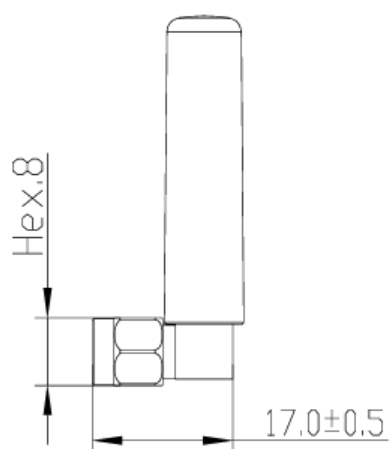
5G NR / LTE / LTE-Advanced / WCDMA / HSPA / HSPA+ / GPRS / GSM / NB-IoT				
Band	Frequency (MHz)	Uplink (MHz)	Downlink (MHz)	Covered
1	2100	1920–1980	2110–2170	✓
2	1900	1850–1910	1930–1990	✓
3	1800	1710–1785	1805–1880	✓
4	1700	1710–1755	2110–2155	✓
5	850	824–849	869–894	✓
7	2600	2500–2570	2620–2690	✓
8	900	880–915	925–960	✓
9	1800	1749.9–1784.9	1844.9–1879.9	✓
11	1500	1427.9–1447.9	1475.9–1495.9	-
12	700	699–716	729–746	✓
13	700	777–787	746–756	✓
14	700	788–798	758–768	✓
17	700	704–716	734–746	✓
18	850	815–830	860–875	✓
19	850	830–845	875–890	✓
20	800	832–862	791–821	✓
21	1500	1447.9–1462.9	1495.9–1510.9	-
22	3500	3410–3490	3510–3590	-
23	2100	2000–2020	2180–2200	✓
24	1600	1626.5–1660.5	1525–1559	-
25	1900	1850–1915	1930–1995	✓
26	850	814–849	859–894	✓

28	700	703–748	758–803	✓
31	450	452.5–457.5	462.5–467.5	-
34	2100	2010–2025		✓
38	2600	2570–2620		✓
39	1900	1880–1920		✓
40	2300	2300–2400		✓
41	2500	2496–2690		✓
42	3500	3400–3600		-
48	3500	3550–3700		-
66	1700	1710–1780	2110–2200	✓
71	600	663–698	617–652	-
74	1500	1427–1470	1475–1518	-
77	3500	3300–4200		-
78	3500	3300–3800		-
79	4500	4400–5000		-

1.3. Mechanical & Environmental

Mechanical	
Antenna Dimensions	17 mm × Φ 9.4 mm × 43 mm
Material & Color	TPE & Black
Connector Type	SMA Male (Ni plating)
Mounting Type	Terminal
Weight	Typ. 5.82 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
RoHS Compliant	Yes

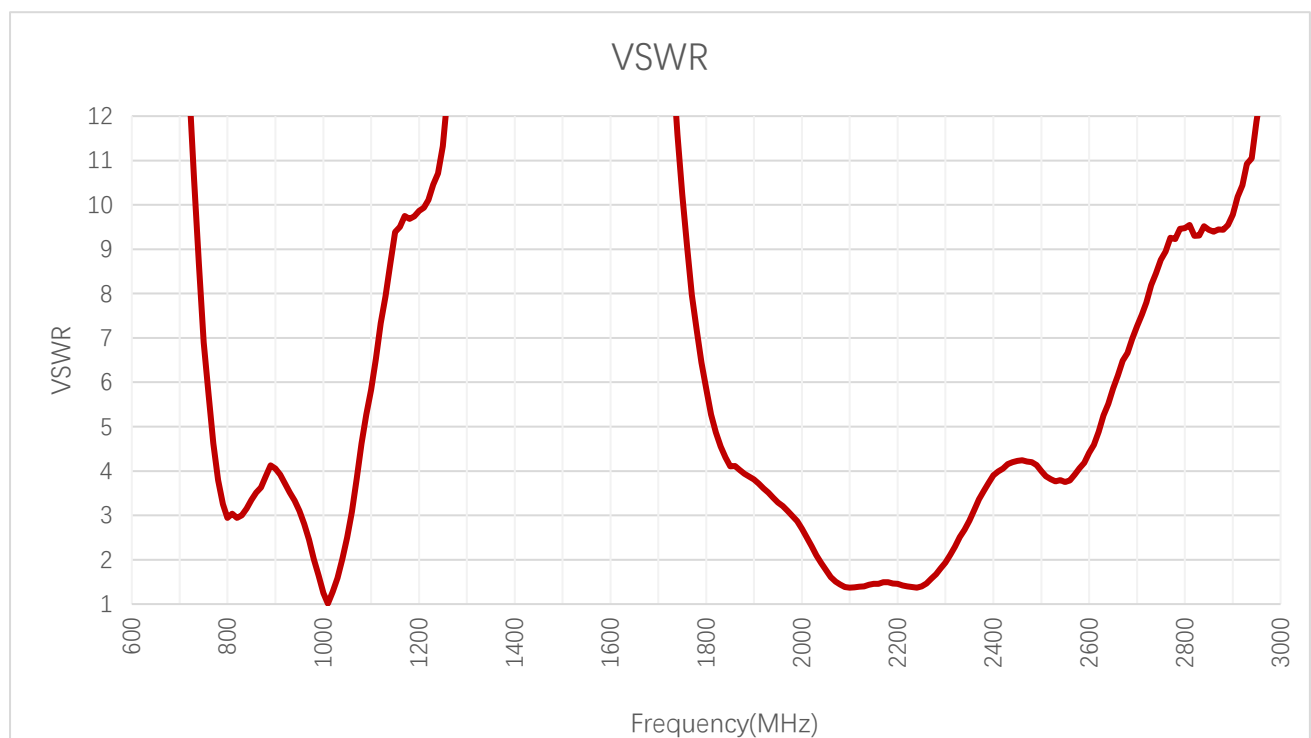
2 Drawing



3 Detailed Performance

3.1. S-Parameter Test

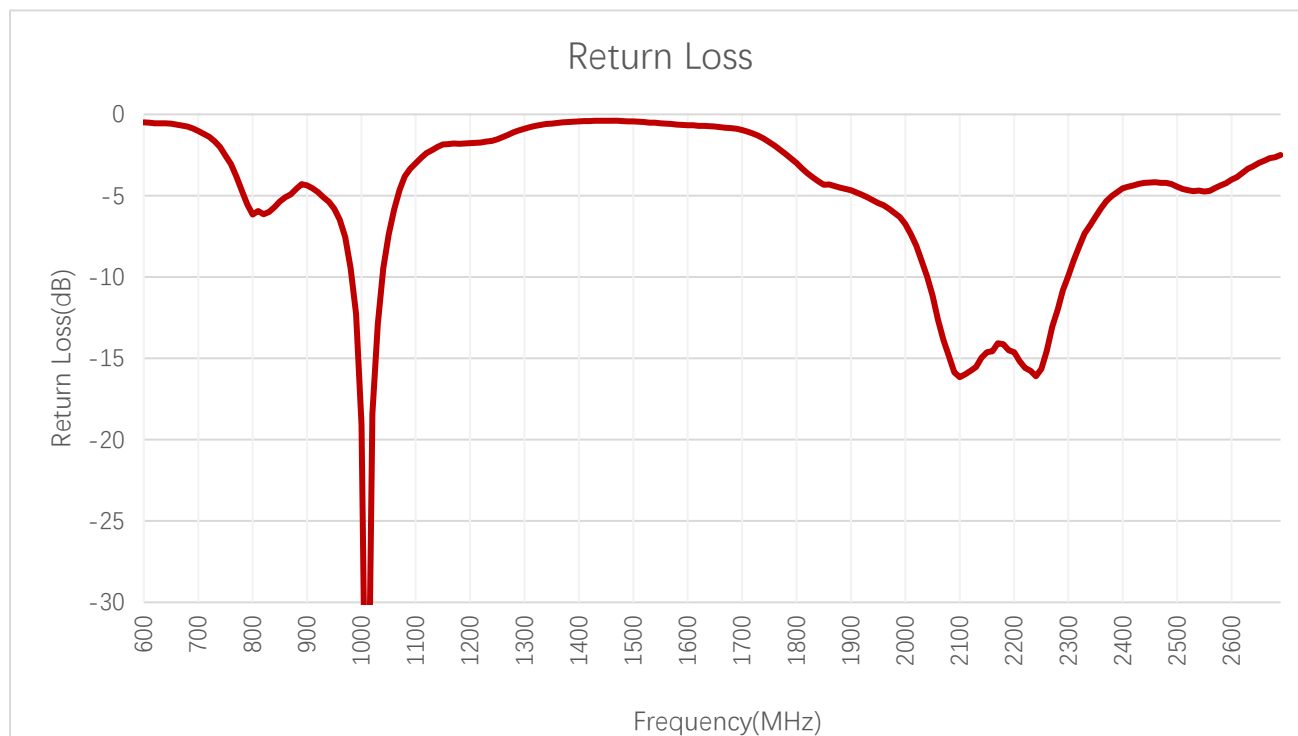
3.1.1. VSWR



VSWR

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
VSWR	-	-	14.4	3.0	4.1	2.8	-	16.3	11.6	3.9
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
VSWR	3.3	1.4	2.9	4.2	4.4	7.0	-	-	-	-

3.1.2. Return Loss

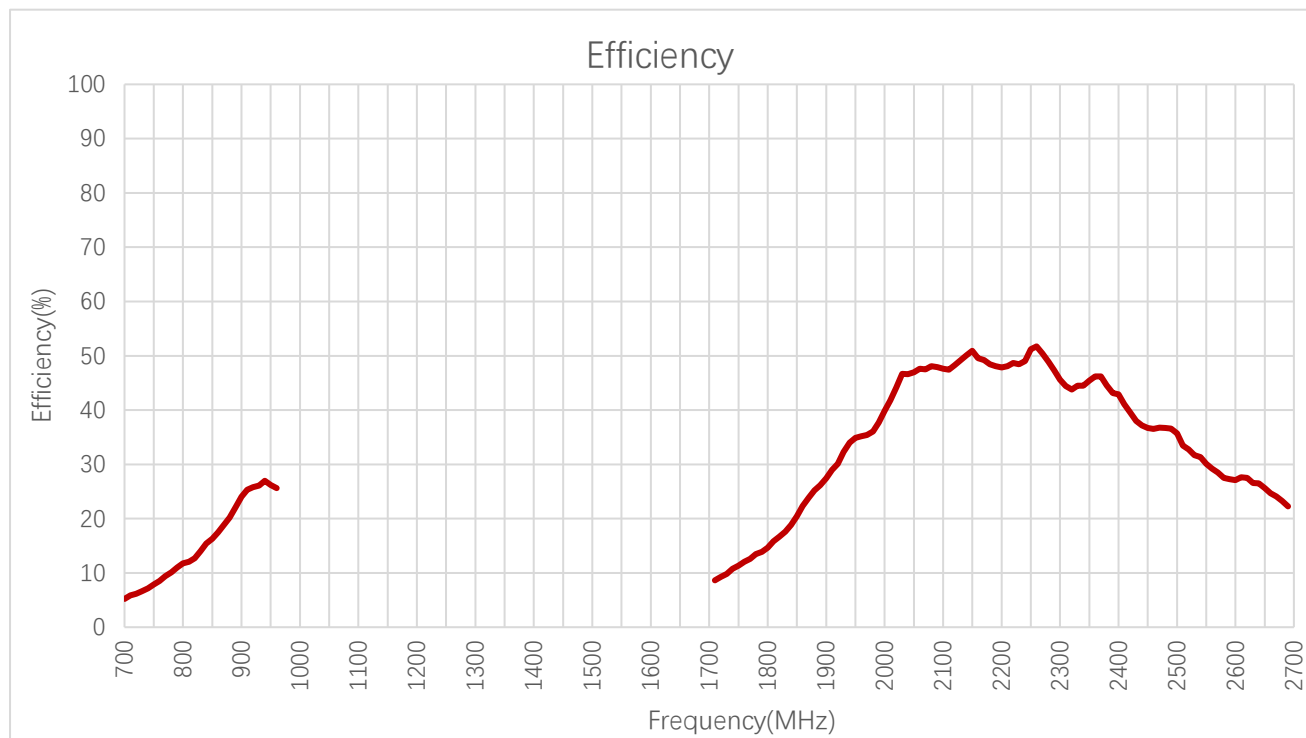


Return Loss (dB)

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Return Loss (dB)	-	-	-1.2	-6.0	-4.4	-6.5	-	-1.1	-1.5	-4.5
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
Return Loss (dB)	-5.5	-15.0	-6.3	-4.2	-4.0	-2.5	-	-	-	-

3.2. Radiation Performance Test

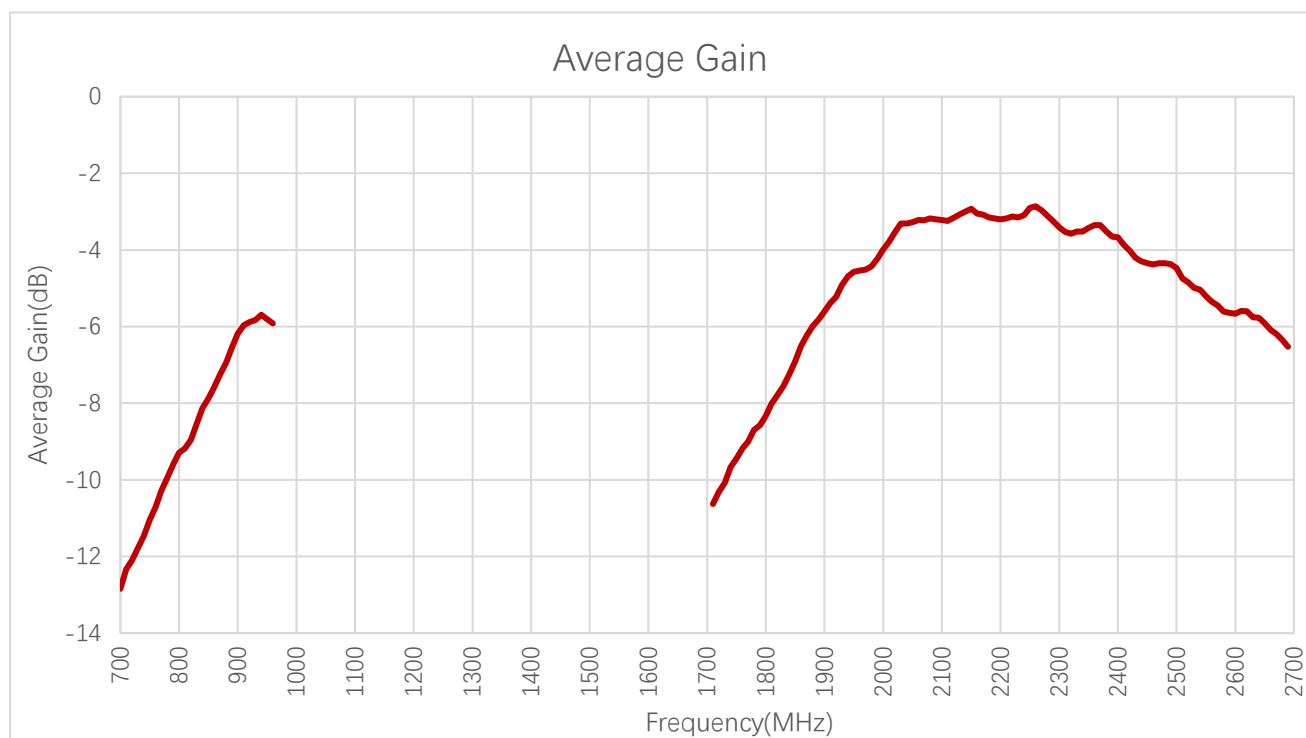
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Efficiency (%)	-	-	5.9	14.0	24.0	25.6	-	8.7	10.8	25.2
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
Efficiency (%)	34.9	50.1	45.4	36.7	27.1	22.2	-	-	-	-

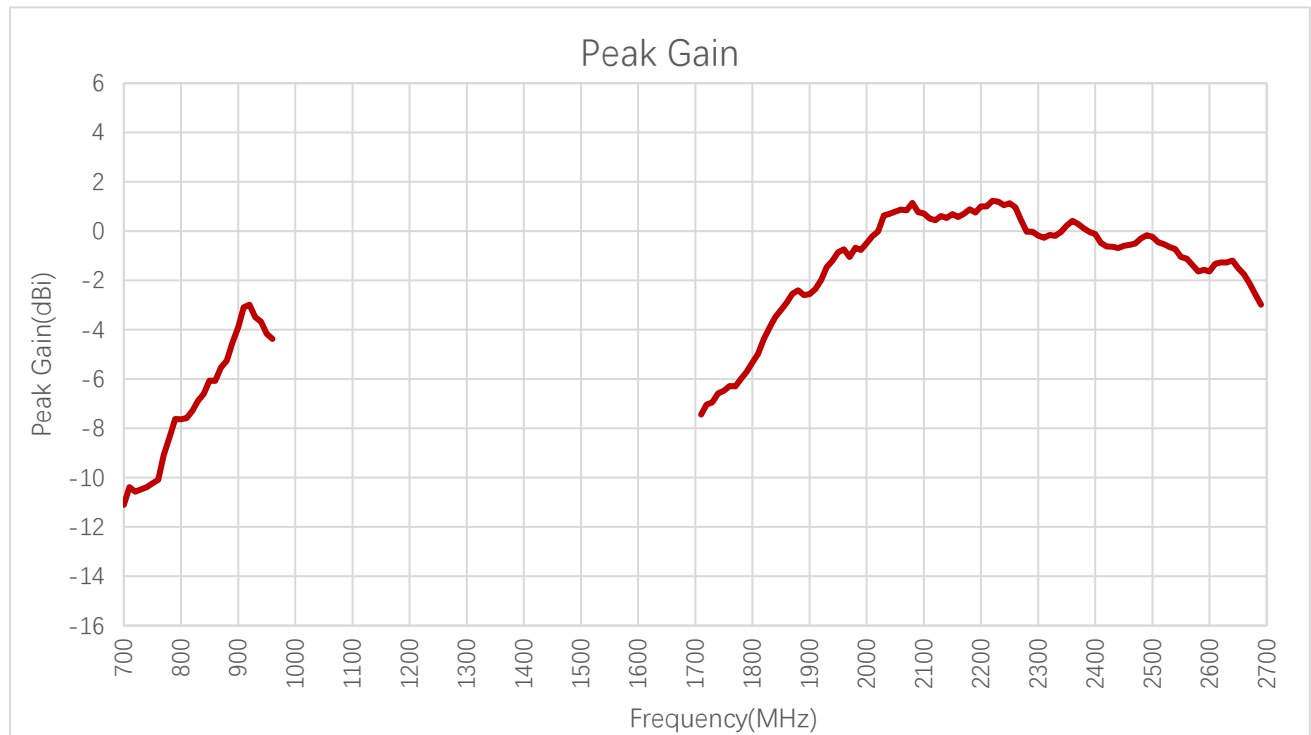
3.2.2. Average Gain



Average Gain (dB)

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Average Gain (dB)	-	-	-12.3	-8.5	-6.2	-5.9	-	-10.6	-9.7	-6.0
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
Average Gain (dB)	-4.6	-3.0	-3.4	-4.4	-5.7	-6.5	-	-	-	-

3.2.3. Peak Gain

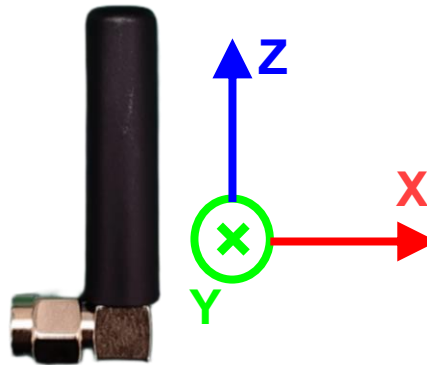


Peak Gain (dBi)

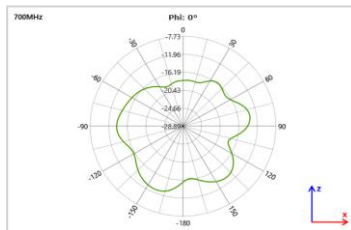
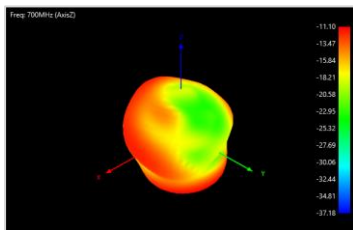
Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Peak Gain (dBi)	-	-	-10.4	-6.9	-3.9	-4.4	-	-7.4	-6.6	-2.4
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
Peak Gain (dBi)	-0.9	0.5	0.2	-0.6	-1.6	-3.0	-	-	-	-

3.2.4. 3D & 2D Radiation Pattern

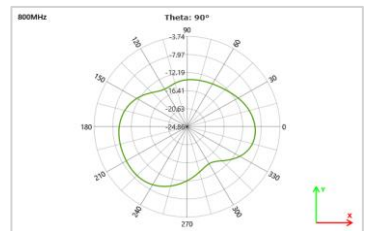
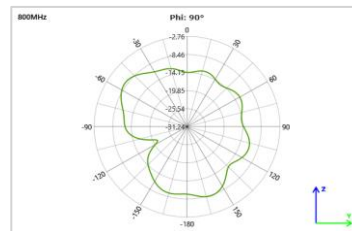
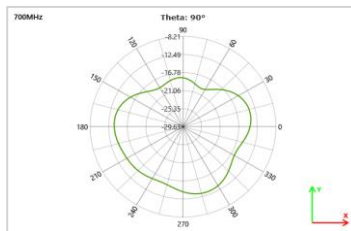
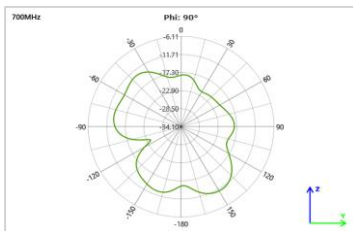
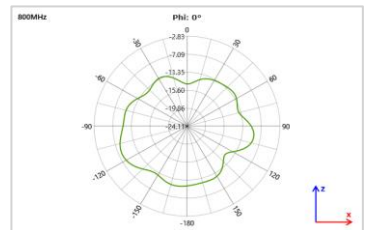
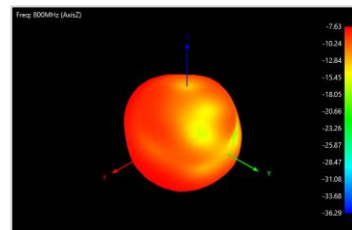
- Test Condition: Free Space
- Test Chamber: LY-S-1



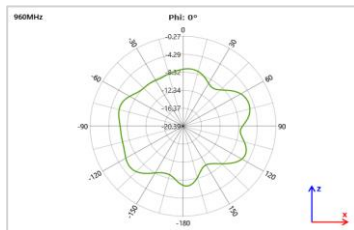
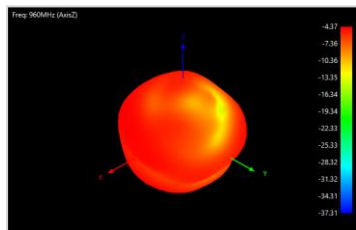
700 MHz



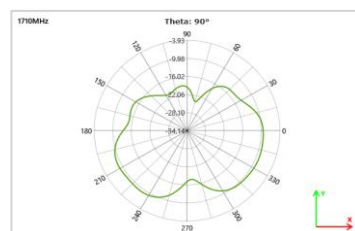
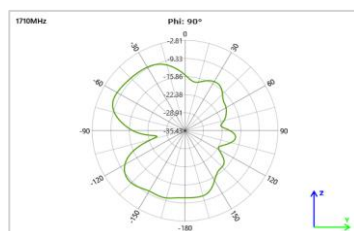
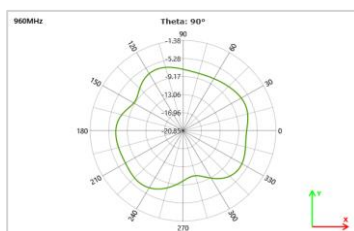
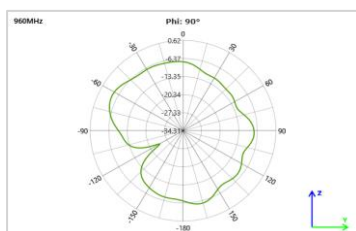
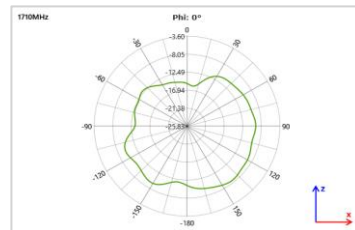
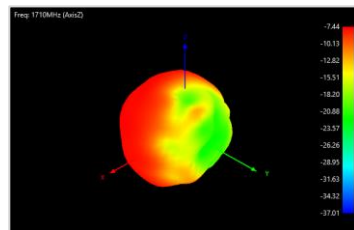
800 MHz



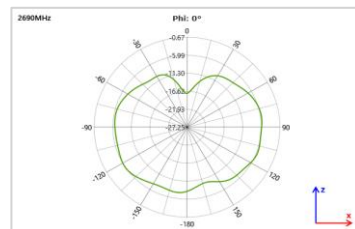
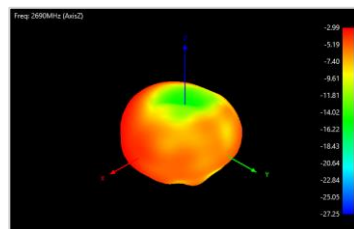
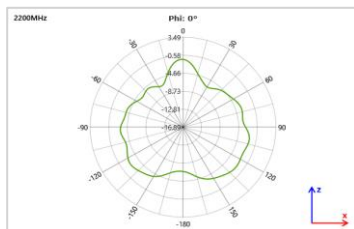
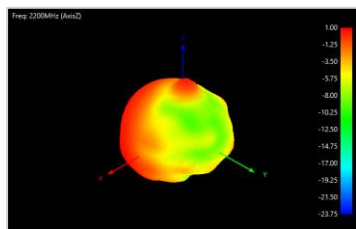
960 MHz



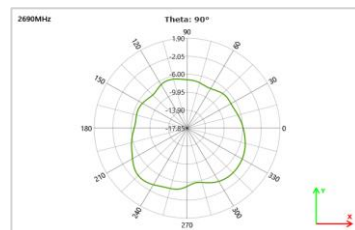
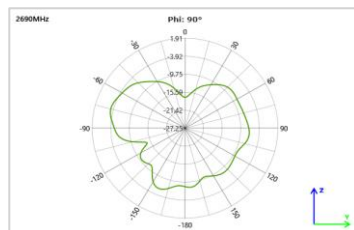
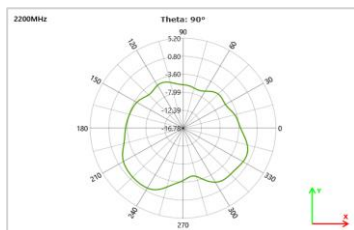
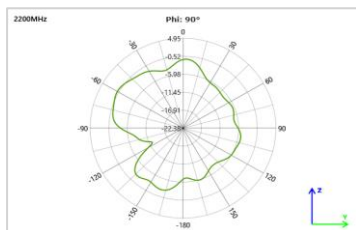
1710 MHz



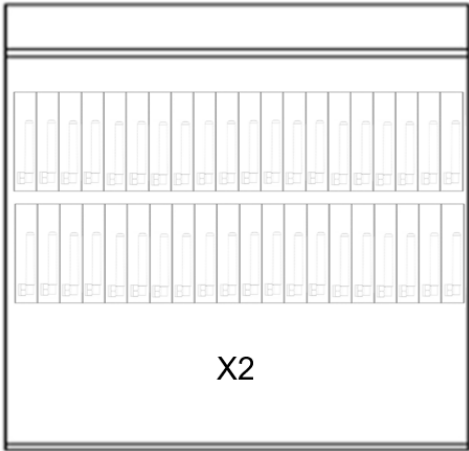
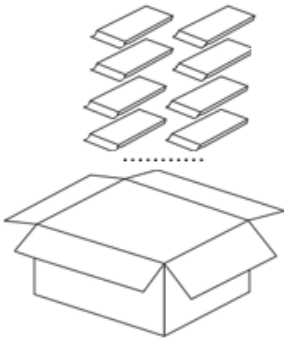
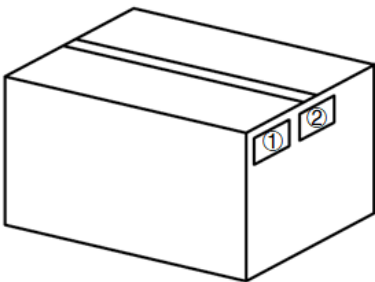
2200 MHz

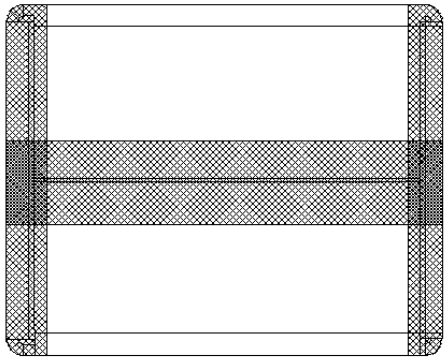


2690 MHz



4 Packaging

Step	Packaging Picture / 2D Picture	Description
1		20 antenna products in a one-piece bag. (20 Antennas / One-piece Bag)
2		40 antenna products in a PE bag. (40 Antennas / PE Bag)
3		(48 PE Bags / Carton Box) (1920 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 = 470 × 310 × 310 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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Email: info@quectel.com

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

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Revision History

Version	Date	Author	Note
-	2026-04-27	Ryan Qian/ Toby Wang/ Kessie Geng/ Rainey Liao	Creation of the document
1.0	2026-04-27	Ryan Qian/ Toby Wang/ Kessie Geng/ Rainey Liao	First official release



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