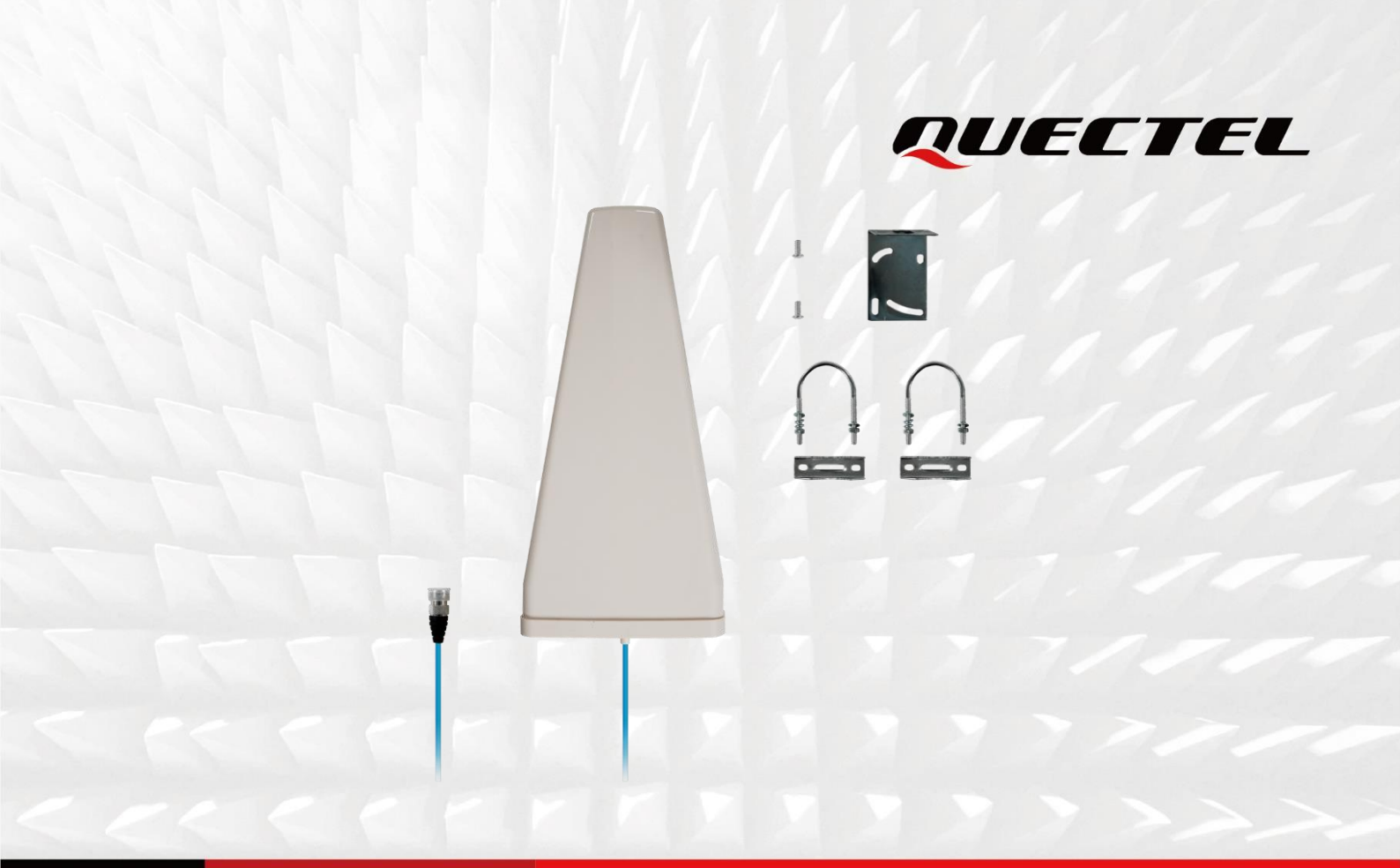




Antenna Datasheet

Product OC: YECR0F0JBAM

Version: 1.0

Date: 2026-06-01

Status: Released

Product Name: 5G Screw Mount External Log Periodic Antenna

Key Features:

Frequency Band: 698–960 MHz, 1400–1600 MHz, 1710–2690 MHz,
3300–3800 MHz

Dimensions: 210mm × 65 mm × 440 mm

Efficiency: Up to 89 %

RoHS & REACH Compliant

IP65

Overview

The YECR0F0JBAM is a high-performance external log-periodic antenna designed for 5G NR, LTE, and other cellular applications. It covers a wide frequency range from 698 MHz to 3800 MHz, including the 698–960 MHz, 1400–1600 MHz, 1710–2690 MHz, and 3300–3800 MHz bands. The antenna offers excellent efficiency (up to 89 %) and directional radiation characteristics, making it ideal for fixed wireless access (FWA), CPE, industrial routers, and outdoor gateway deployments.

- **Key specifications include:**

- ✓ Impedance: 50 Ω
- ✓ Polarization: Linear
- ✓ VSWR: ≤ 1.6 across supported bands
- ✓ Peak gain: Up to 10.5 dBi
- ✓ Dimensions: 210 mm $\times$ 65 mm $\times$ 440 mm
- ✓ Mounting: Screw mount
- ✓ Connector: N-Female with a 300 mm RG141 cable (blue)
- ✓ Environmental rating: IP65, operating temperature -40 °C to +55 °C
- ✓ Compliance: RoHS & REACH compliant

The antenna's rugged ABS white housing and directional log-periodic design ensure reliable performance in outdoor environments, while the included screw-mounting mechanism simplifies installation. Comprehensive radiation pattern data, efficiency, gain, and S-parameter test results are provided in the datasheet for integration and validation.

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: Free Space

1.1. Electrical

Electrical	
Frequency Range	698–960 MHz, 1400–1600 MHz, 1710–2690 MHz, 3300–3800 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Directional
Antenna Type	Log periodic
PIM	≤ -107 dBm (@ 2 x 43 dBm)

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	n79	Wi-Fi 5G
SPEC	Freq. (MHz)	600– 700	700– 810	820– 960	1420– 1520	1700– 2170	2300– 2400	2400– 2500	2500– 2690	3300– 3800	4400– 5000	5150– 5850
Max. VSWR		-	1.6	1.4	1.3	1.2	1.3	1.3	1.3	1.4	-	-
Max. Return Loss (dB)		-	-12.2	-15.1	-18.3	-21.6	-18.2	-17.1	-16.8	-16.5	-	-
AVG Eff. (%)		-	78.2	82.6	79.7	69.9	53.2	48.6	52.8	42.3	-	-
AVG AVG Gain (dB)		-	-1.1	-0.8	-1.0	-1.6	-2.7	-3.1	-2.8	-3.8	-	-
Max. Peak Gain (dBi)		-	8.3	8.4	10.5	10.4	8.2	8.0	8.3	7.6	-	-
VSWR						≤ 1.6						
Return Loss						≤ -12.2 dB						
Peak Gain						≤ 10.5 dBi						

1.2. Supported Bands

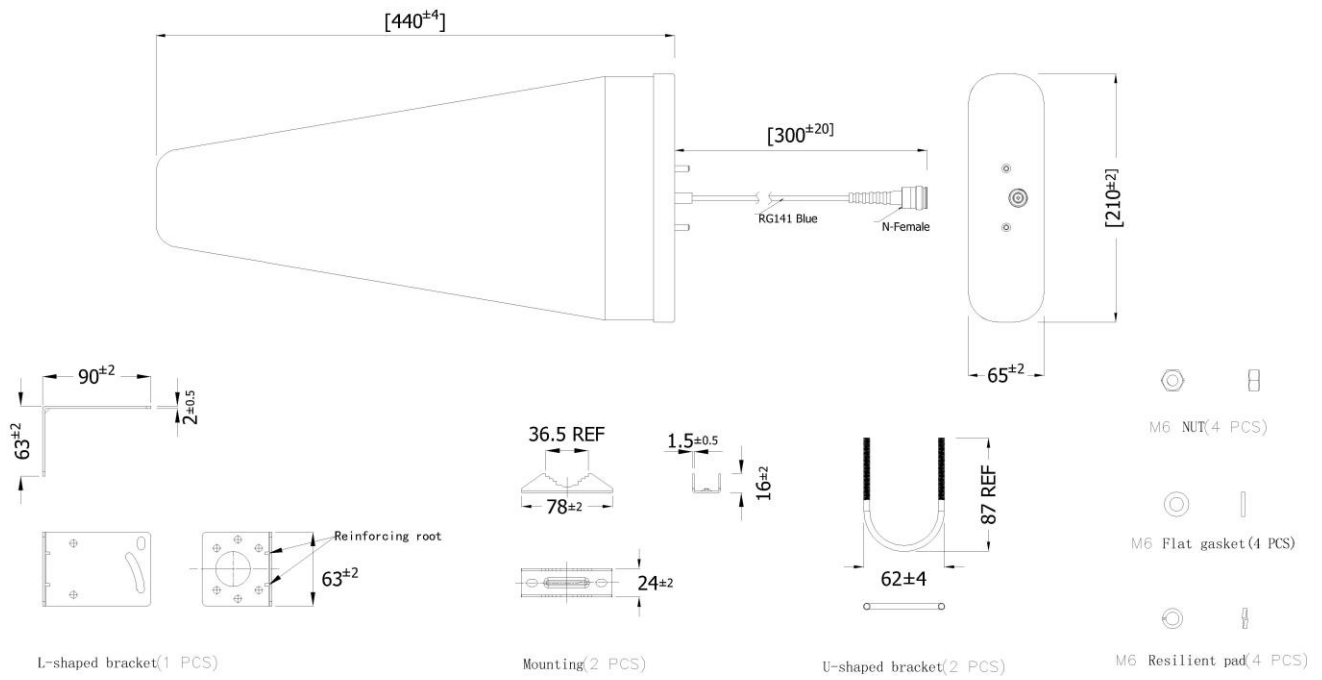
5G NR / LTE / LTE-Advanced / WCDMA / HSPA / HSPA+ / GPRS / GSM / NB-IoT				
Band	Frequency (MHz)	Uplink (MHz)	Downlink (MHz)	Covered
1	2100	1920–1980	2110–2170	✓
2	1900	1850–1910	1930–1990	✓
3	1800	1710–1785	1805–1880	✓
4	1700	1710–1755	2110–2155	✓
5	850	824–849	869–894	✓
7	2600	2500–2570	2620–2690	✓
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	210 mm × 65 mm × 440 mm
Material & Color	ABS & White
Cable Type & Color & Length	RG141 & Blue & 300mm
Connector Type	N-Female
Mounting Type	Screw
Weight	Typ. 530 g
Environmental	
Operation Temperature	-40 °C to +55 °C
Storage Temperature	-40 °C to +55 °C
Ingress Protection (IP) Rating	IP65
RoHS & REACH Compliant	Yes

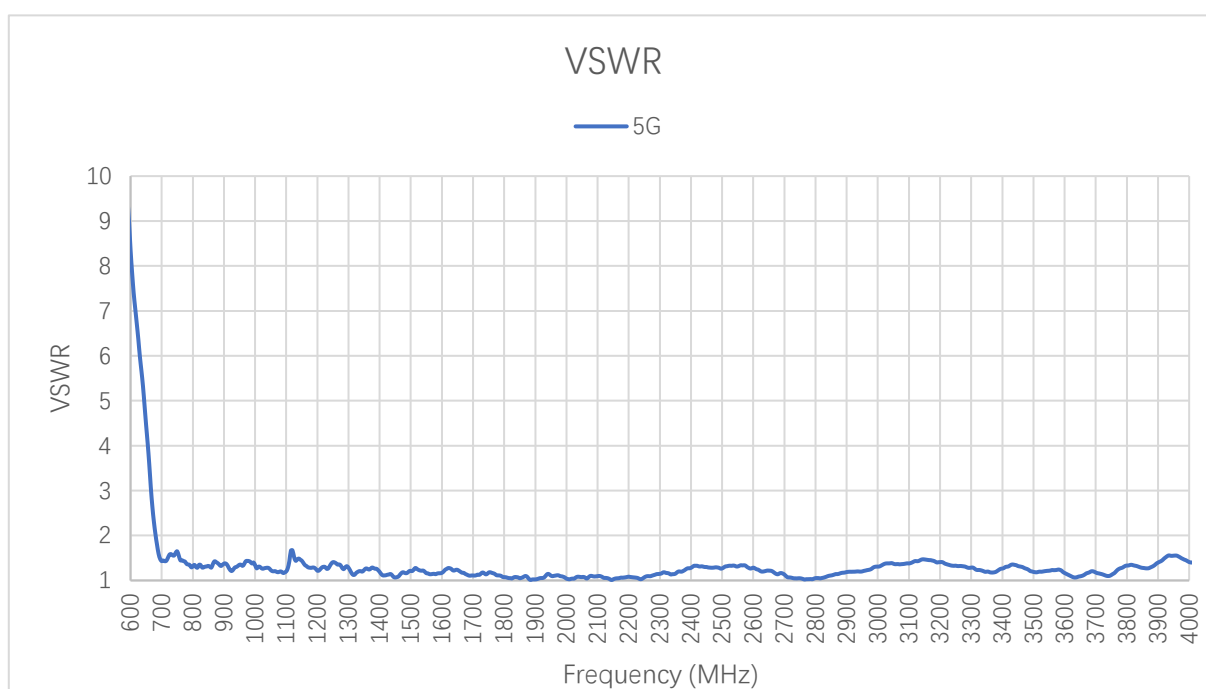
2 Drawing



3 Detailed Performance

3.1. S-Parameter Test

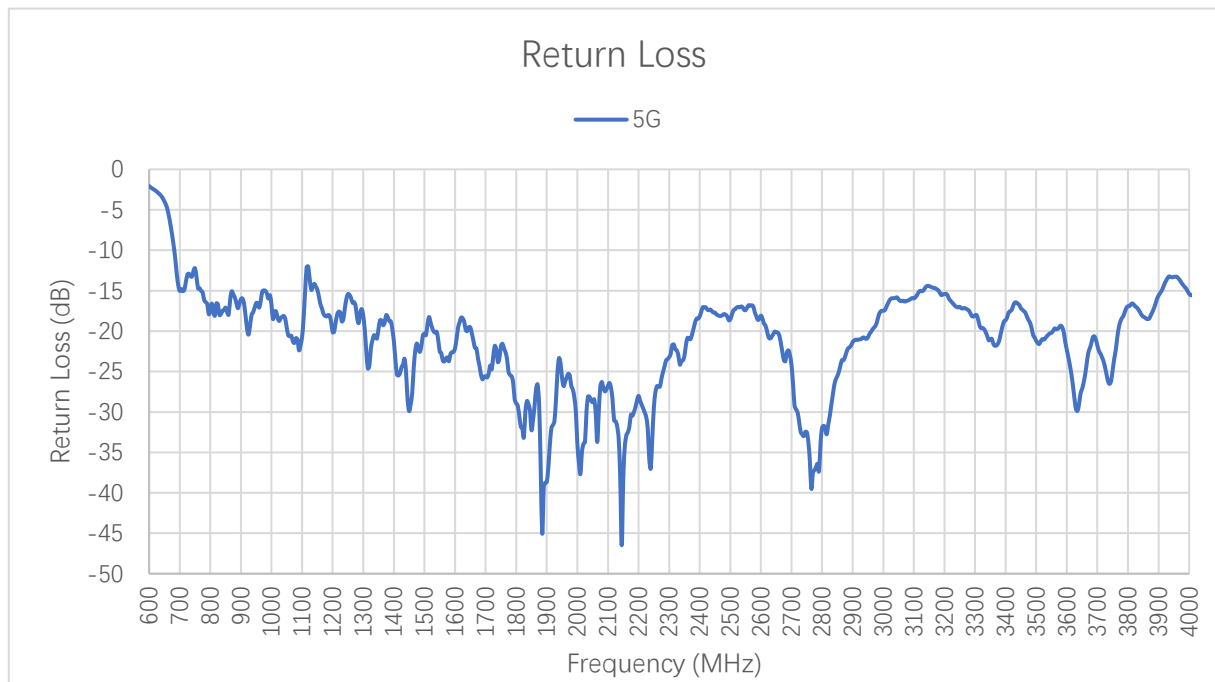
3.1.1. VSWR



VSWR

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
VSWR	-	-	1.4	1.3	1.4	1.3	1.1	1.1	1.1	1.0
Frequency (MHz)	1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
VSWR	1.1	1.0	1.2	1.3	1.3	1.2	-	-	-	-

3.1.2. Return Loss

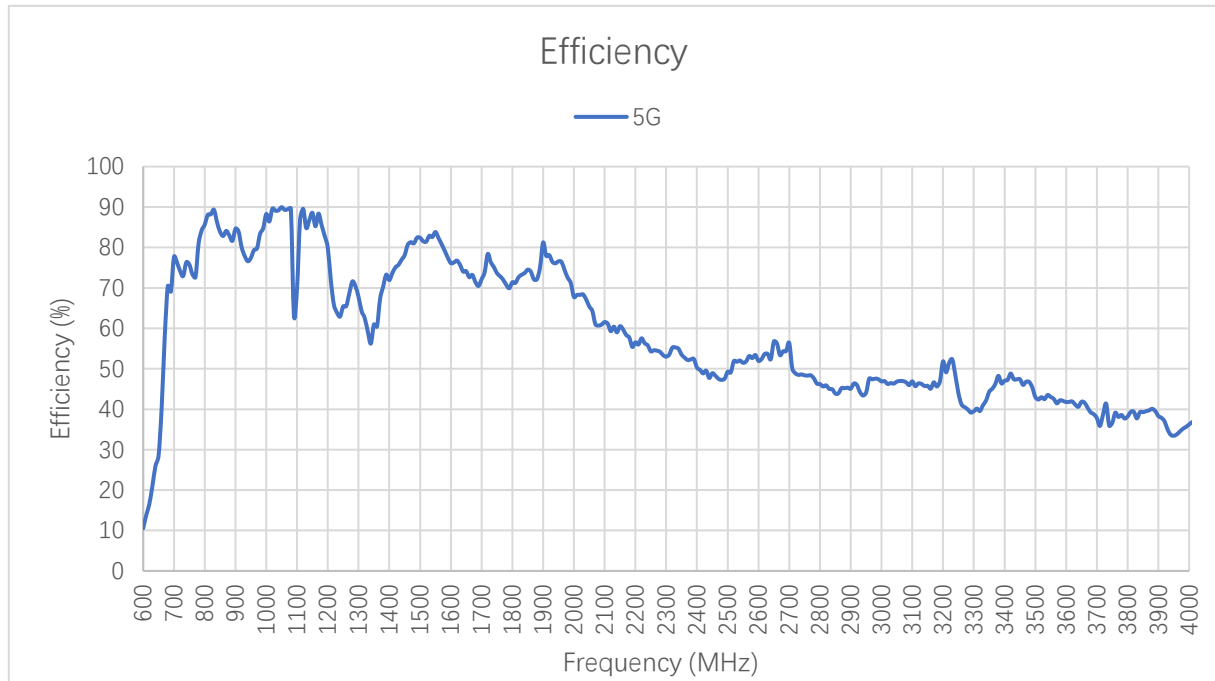


Return Loss (dB)

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Return Loss (dB)	-	-	-15.1	-18.0	-16.1	-17.1	-25.1	-25.3	-23.8	-36.6
Frequency (MHz)	1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
Return Loss (dB)	-25.8	-38.0	-23.1	-17.7	-18.1	-22.3	-	-	-	-

3.2. Radiation Performance Test

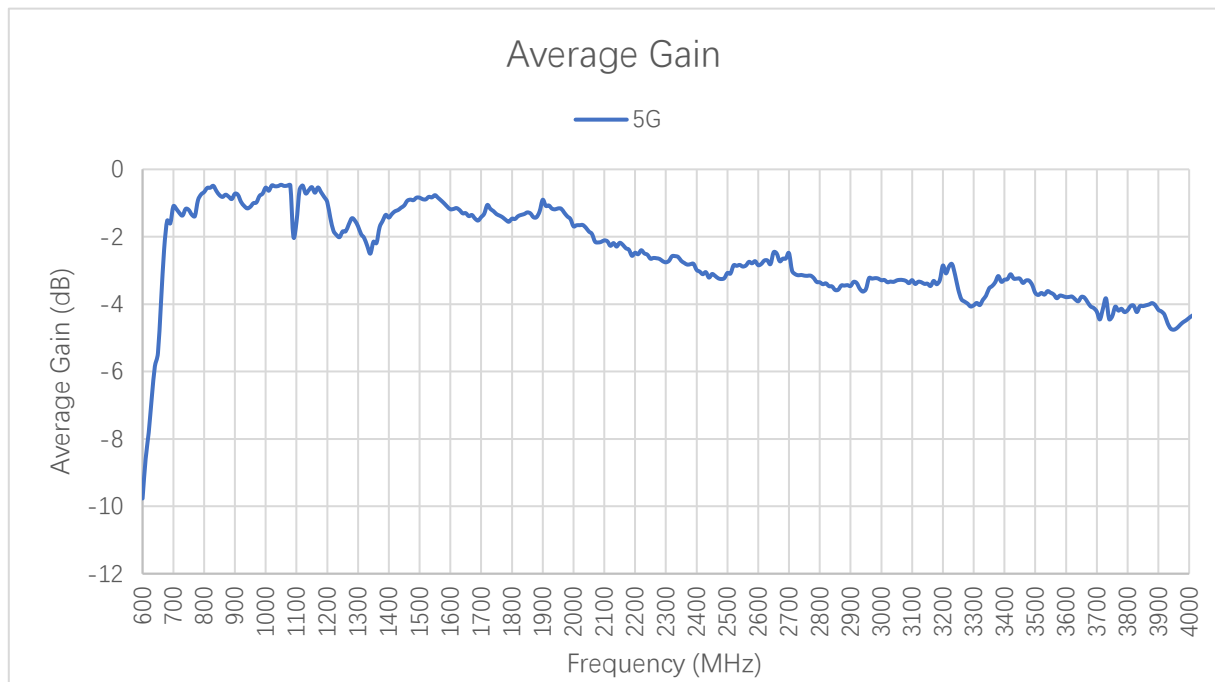
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Efficiency (%)	-	-	76.3	89.3	84.7	79.3	77.0	73.9	75.2	72.2
Frequency (MHz)	1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
Efficiency (%)	76.6	59.0	53.5	48.9	52.0	41.8	-	-	-	-

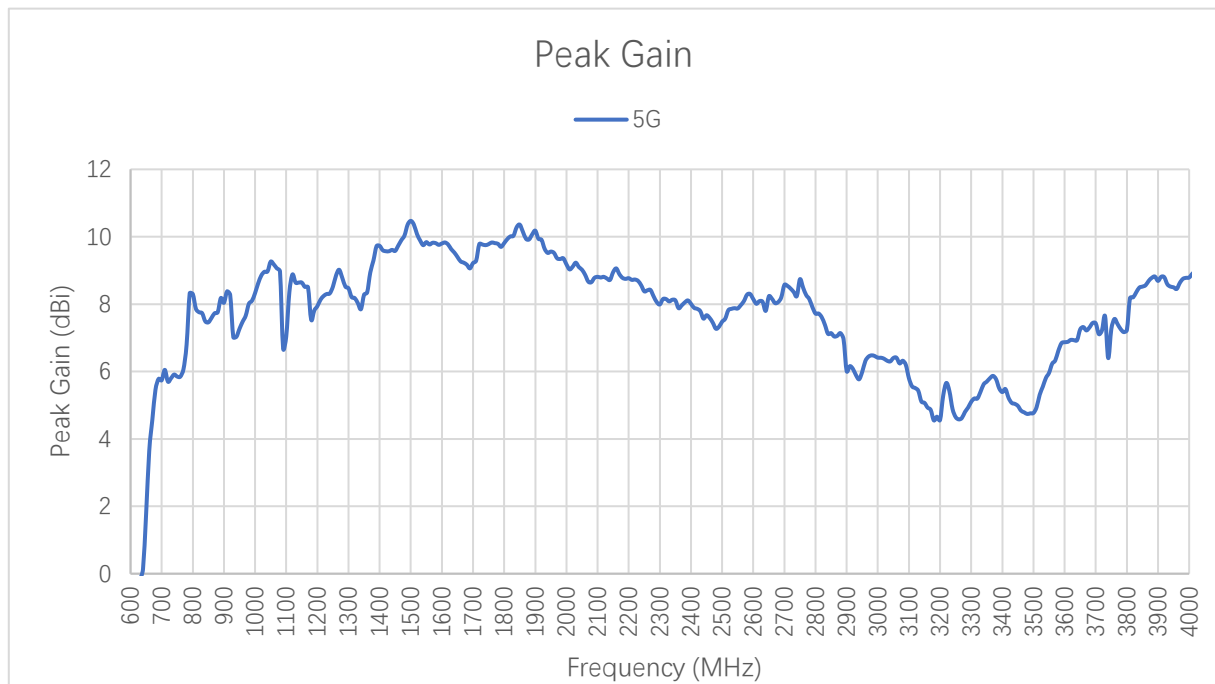
3.2.2. Average Gain



Average Gain (dB)

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Average Gain (dB)	-	-	-1.2	-0.5	-0.7	-1.0	-1.1	-1.3	-1.2	-1.4
Frequency (MHz)	1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
Average Gain (dB)	-1.2	-2.3	-2.7	-3.1	-2.8	-3.8	-	-	-	-

3.2.3. Peak Gain

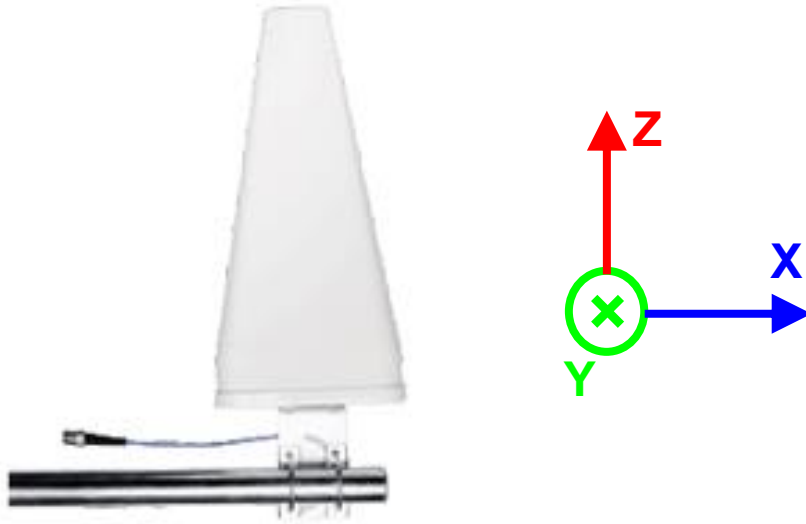


Peak Gain (dBi)

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Peak Gain (dBi)	-	-	6.1	7.7	8.0	7.5	9.6	9.3	9.8	9.9
Frequency (MHz)	1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
Peak Gain (dBi)	9.6	8.7	8.1	7.7	8.2	6.9	-	-	-	-

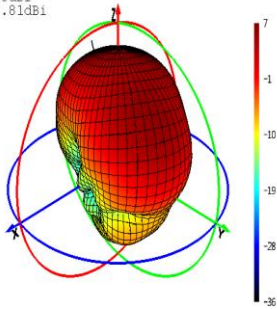
3.2.4. 3D & 2D Radiation Pattern

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

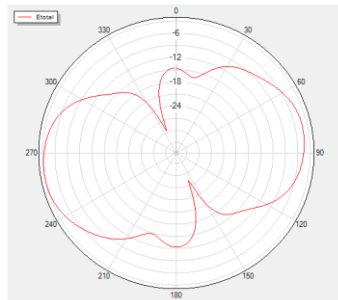


710 MHz

MAX:6.05dBi
MIN:-37.81dBi

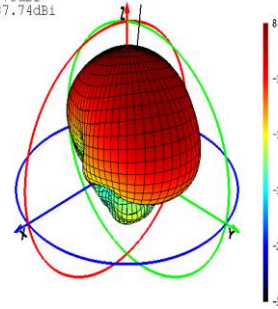


Theta=90 Freq=710MHz

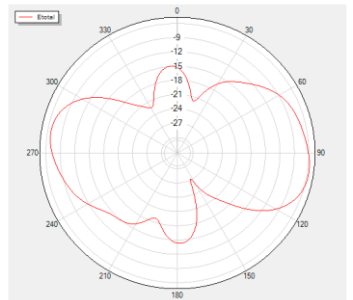


830 MHz

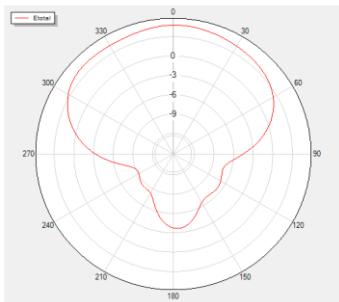
MAX:7.73dBi
MIN:-37.74dBi



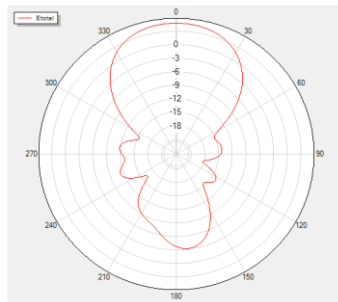
Theta=90 Freq=830MHz



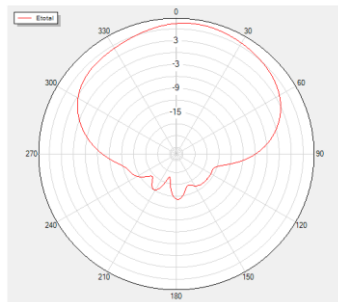
Phi=90 Freq=710MHz



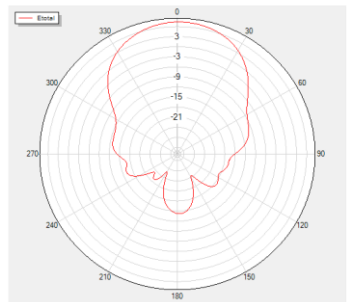
Phi=0 Freq=710MHz



Phi=90 Freq=830MHz

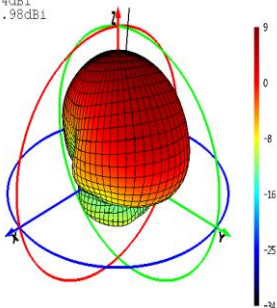


Phi=0 Freq=830MHz

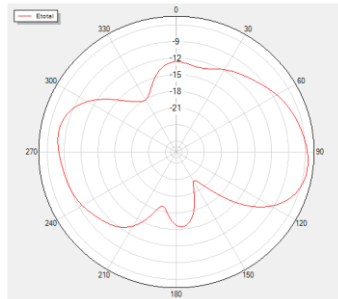


900 MHz

MAX:8.04dBi
MIN:-34.98dBi

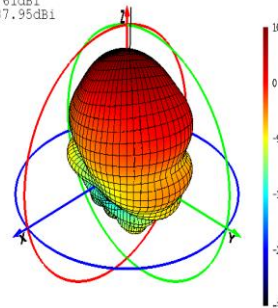


Theta=90 Freq=900MHz

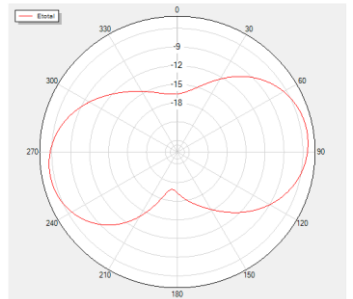


1440 MHz

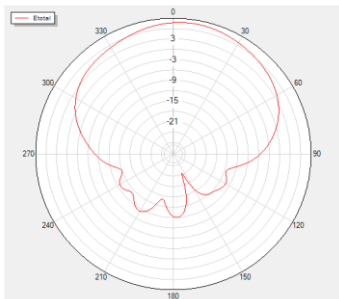
MAX:9.61dBi
MIN:-37.95dBi



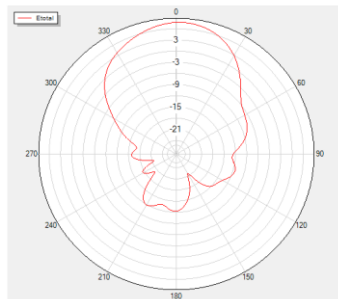
Theta=90 Freq=1440MHz



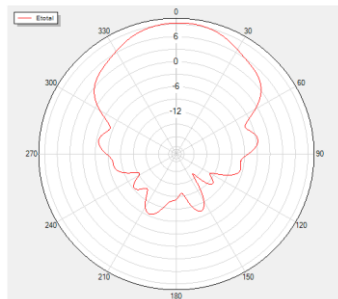
Phi=90 Freq=900MHz



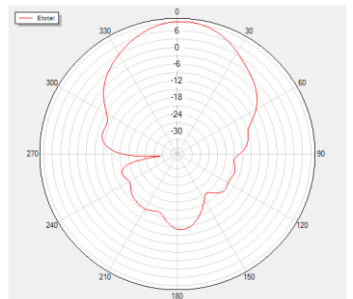
Phi=0 Freq=900MHz



Phi=90 Freq=1440MHz

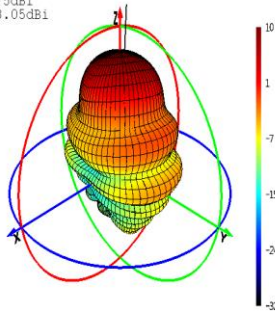


Phi=0 Freq=1440MHz

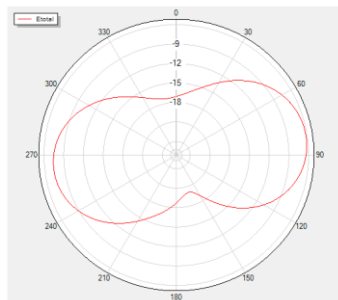


1740 MHz

MAX: 9.75dB*i*
MIN: -33.05dB*i*

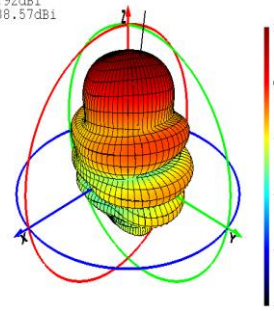


Theta=90 Freq=1740MHz

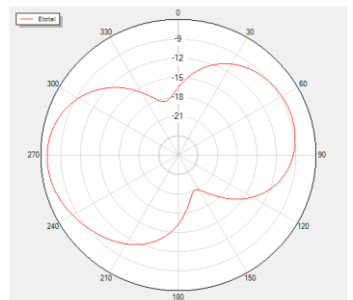


1880 MHz

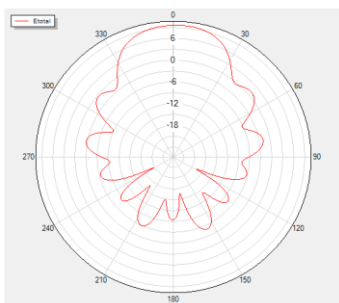
MAX: 9.92dB*i*
MIN: -38.57dB*i*



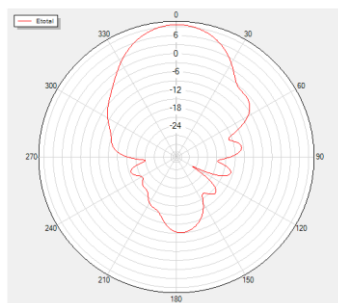
Theta=90 Freq=1880MHz



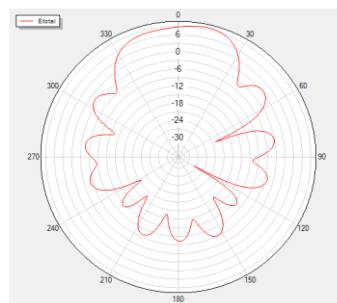
Phi=90 Freq=1740MHz



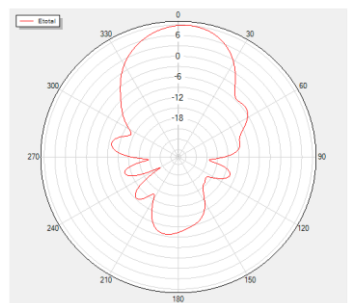
Phi=0 Freq=1740MHz



Phi=90 Freq=1880MHz

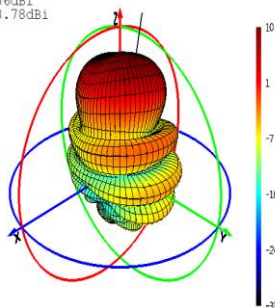


Phi=0 Freq=1880MHz

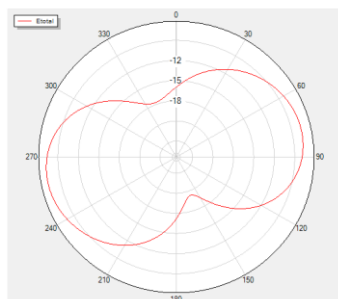


1950 MHz

MAX: 9.56dB*i*
MIN: -33.78dB*i*

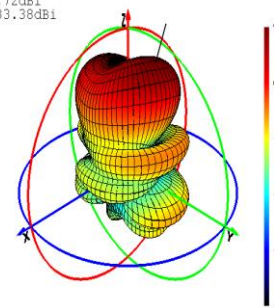


Theta=90 Freq=1950MHz

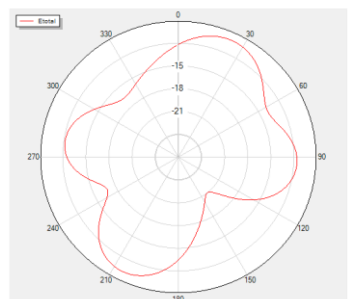


2140 MHz

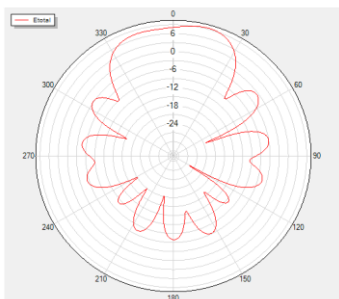
MAX: 8.72dB*i*
MIN: -33.38dB*i*



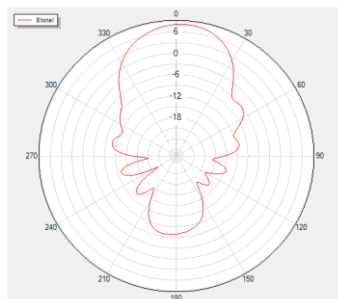
Theta=90 Freq=2140MHz



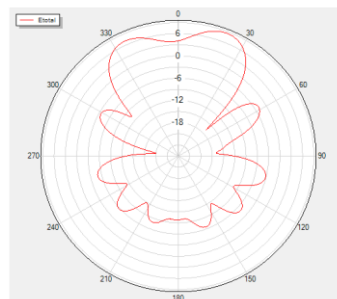
Phi=90 Freq=1950MHz



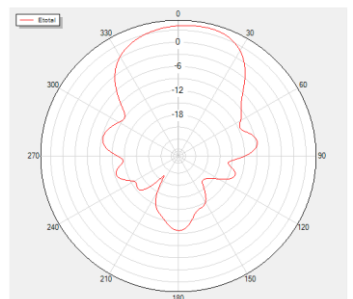
Phi=0 Freq=1950MHz



Phi=90 Freq=2140MHz

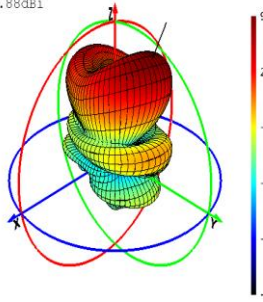


Phi=0 Freq=2140MHz

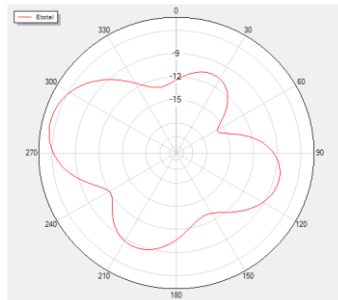


2350 MHz

MAX:8.11dBi
MIN:-24.88dBi

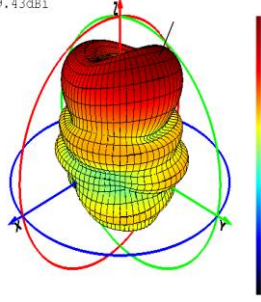


Theta=90 Freq=2350MHz

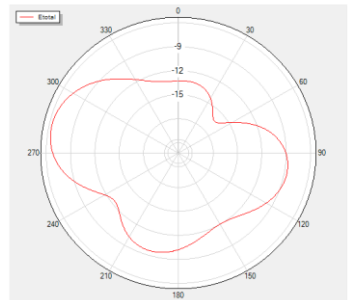


2450 MHz

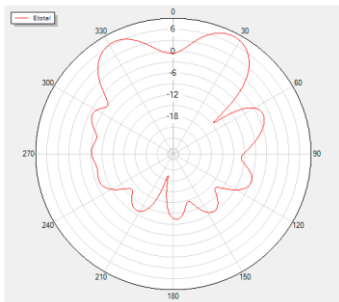
MAX:7.67dBi
MIN:-39.43dBi



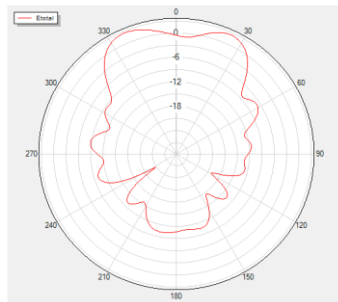
Theta=90 Freq=2450MHz



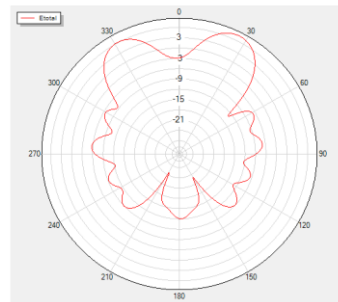
Phi=90 Freq=2350MHz



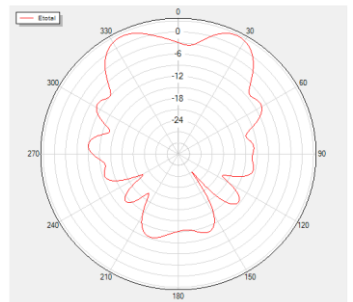
Phi=0 Freq=2350MHz



Phi=90 Freq=2450MHz

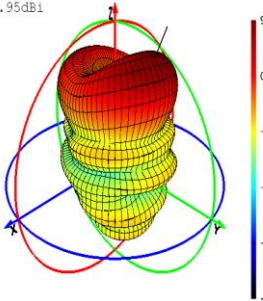


Phi=0 Freq=2450MHz

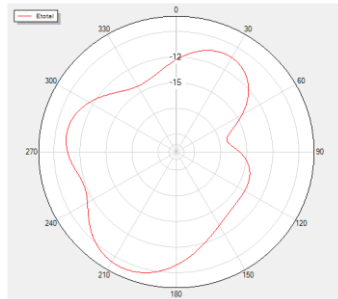


2600 MHz

MAX:8.15dBi
MIN:-36.95dBi

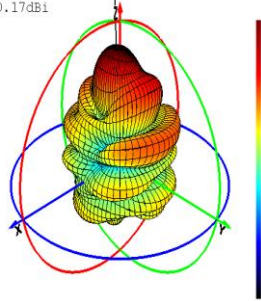


Theta=90 Freq=2600MHz

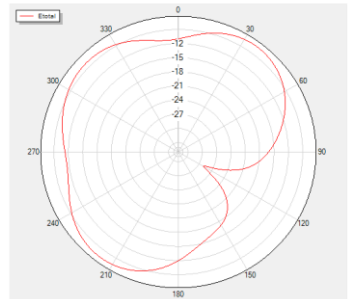


3600 MHz

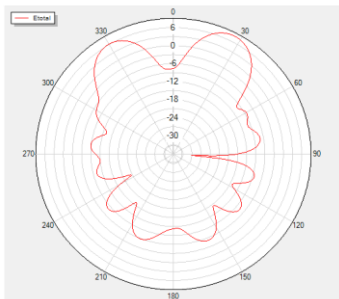
MAX:6.87dBi
MIN:-30.17dBi



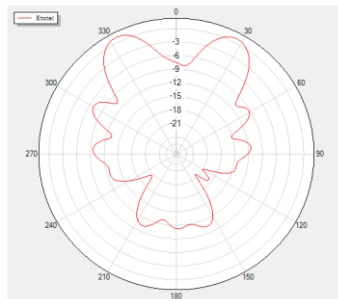
Theta=90 Freq=3600MHz



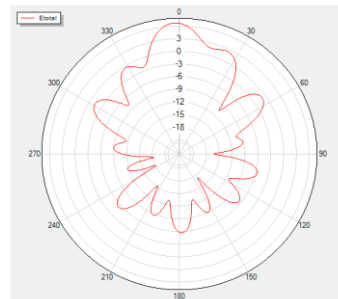
Phi=90 Freq=2600MHz



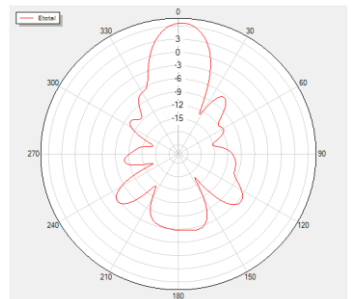
Phi=0 Freq=2600MHz



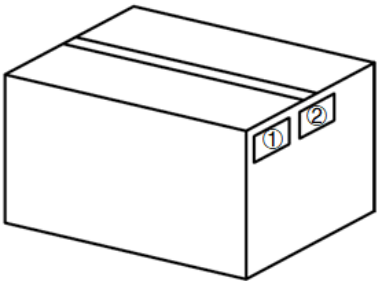
Phi=90 Freq=3600MHz

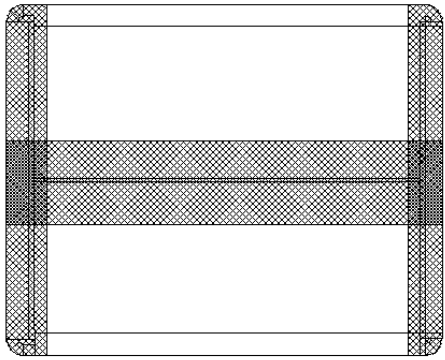


Phi=0 Freq=3600MHz



4 Packaging

Step	Packaging Picture / 2D Picture	Description
1		Product drawing
2		Place the product in a PO bag, then place it in the inner box, and finally insert the tag. (1 Antenna / Inner Box)
3	 × 20	(20 Inner Boxes / Carton Box) (20 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 = 820× 500 × 465 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:

Quectel Wireless Solutions Co., Ltd.

No. 8 Waipojing Road, Sijing Town, Songjiang District, Shanghai 201601, China

Tel: +86 21 5108 6236

Email: info@quectel.com

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

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Revision History

Version	Date	Author	Note
-	2026-06-01	Mordecai Liu/ Joye Wang/ Kessie Geng/ Rainey Liao	Creation of the document
1.0	2026-06-01	Mordecai Liu/ Joye Wang/ Kessie Geng/ Rainey Liao	First official release



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