



Quectel Antenna Datasheet

Product OC: Y0QUE00ABCA

Version: 1.0

Date: 2024-01-04

Status: Preliminary

Product Name: 5G PCB Antenna

Key Features:

Frequency band: 2305-2360 MHz, 3550-3700 MHz

Peak efficiency: 52.54%

Dimensions: 44.2mm * 27.2mm * 1mm

RoHS and REACH Compliant

Contents

Contents	2
1 Specification	3
1.1. Electrical.....	3
1.2. Mechanical & Environmental	3
2 Drawing	5
3 Detailed Performance	6
3.1. S-Parameter Test	6
3.1.1. VSWR.....	6
3.2. Radiation Performance Test.....	7
3.2.1. Efficiency	7
3.2.2. Average Gain	8
3.2.3. Peak Gain.....	9
3.2.4. 3D & 2D Radiation Pattern.....	10
3.2.4.1. Test Condition: Free Space	10
Contact Us	11
Legal Notices	12
Revision History	14

1 Specification

Test Condition: Free Space

1.1. Electrical

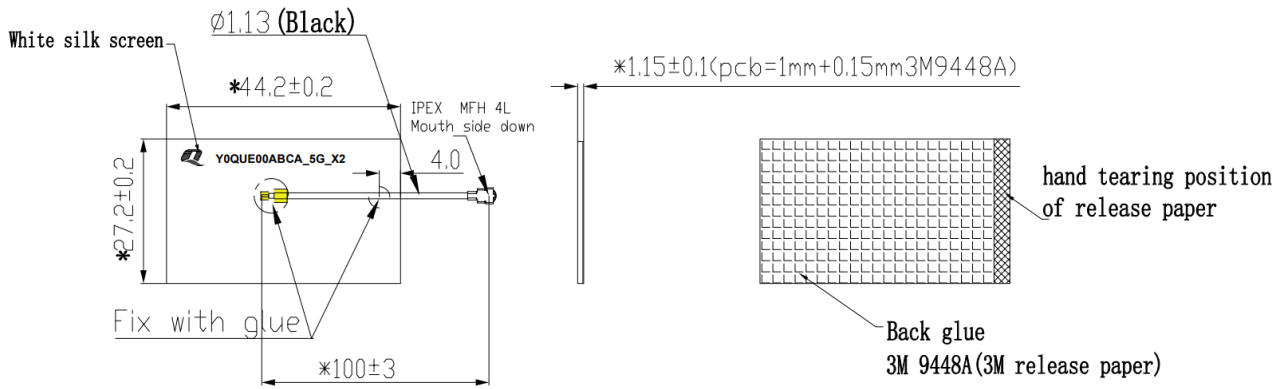
Electrical	
Frequency Range	2305-2360 MHz, 3550-3700 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional
Antenna Type	PIFA

1.2. Mechanical & Environmental

Mechanical	
Antenna Dimensions	44.2 * 27.2 * 1mm
Material & Color	PCB & Green
Cable Type & Color & Length	Φ 1.13 & Black & 100mm
Connector Type	IPEX MHF 4L
Mounting Type	Adhesive
Weight	Typ:3.4g
Environmental	
Operation Temperature	-40 °C to +85 °C
RoHS and REACH Compliant	Yes

Specification \ Frequency	2305-2360 MHz	3550-3700 MHz
Max. VSWR	3.4	4.2
AVG Eff. (%)	50.7	29.6
AVG Gain (dB)	-2.9	-5.3
Max. Peak Gain (dBi)	0.98	1.00
VSWR	≤ 4.2	
Peak Gain	≤ 1 dBi	

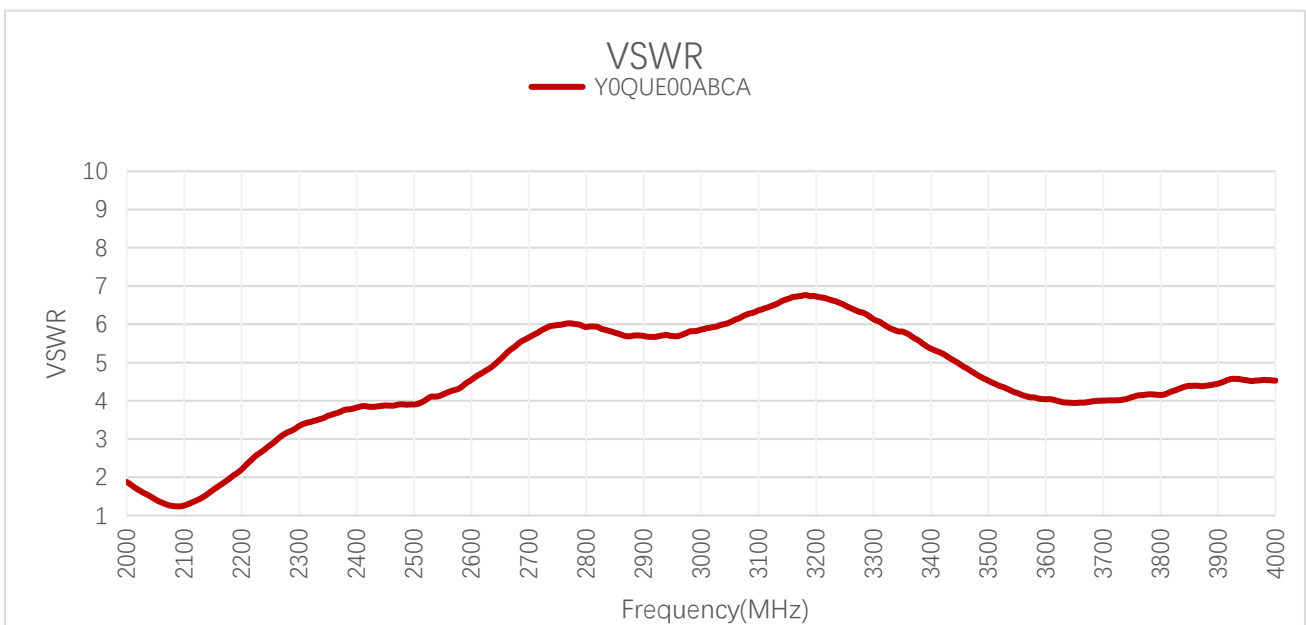
2 Drawing



3 Detailed Performance

3.1. S-Parameter Test

3.1.1. VSWR

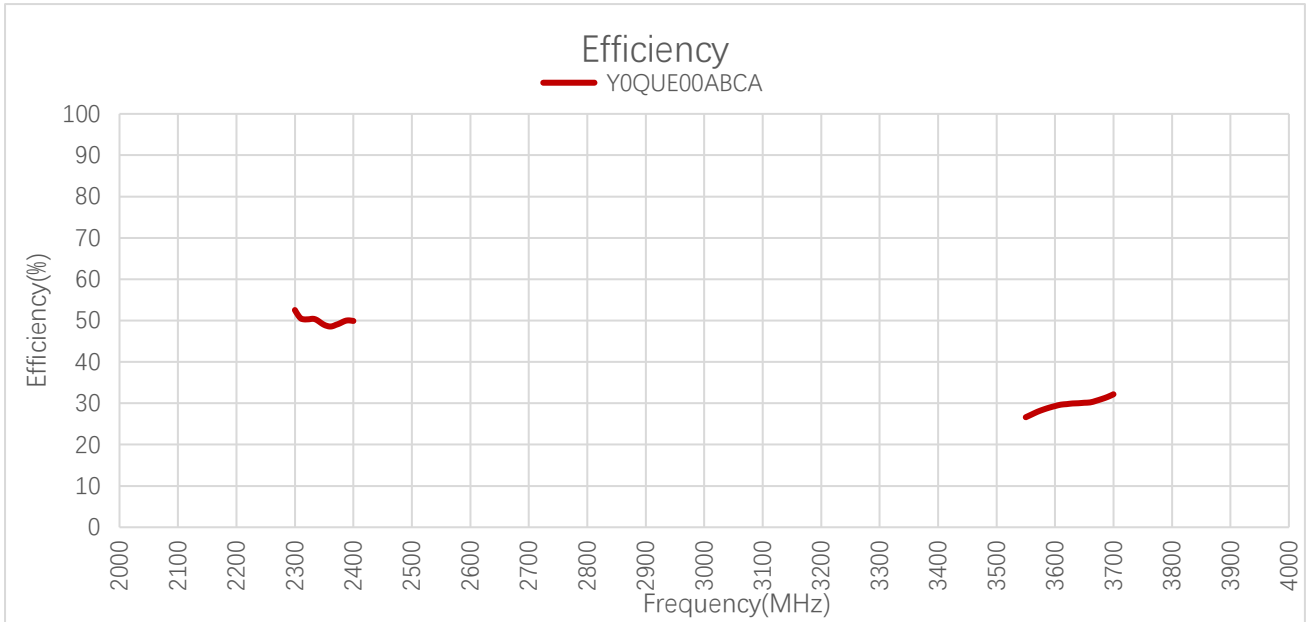


VSWR

Frequency (MHz)	2305	2310	2315	3550	3630	3700
VSWR	3.4	3.4	3.4	4.2	4.0	4.0

3.2. Radiation Performance Test

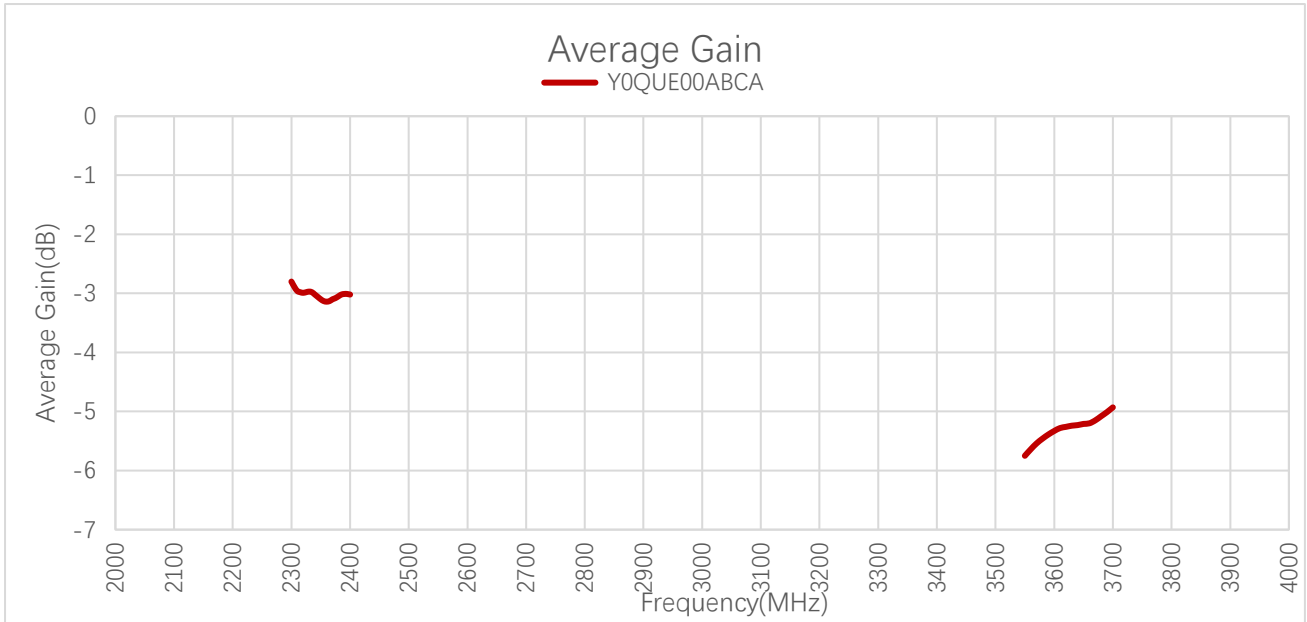
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	2305	2310	2315	3550	3630	3700
Efficiency (%)	51.4	50.5	50.3	26.6	30.0	32.2

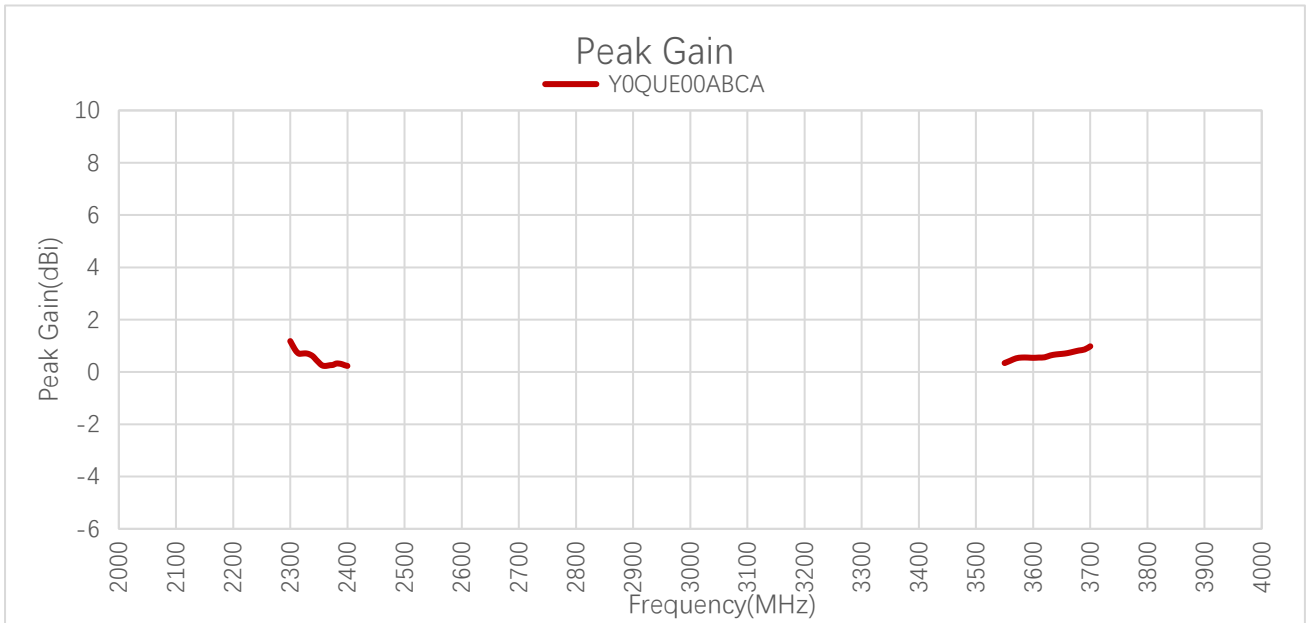
3.2.2. Average Gain



Average Gain (dB)

Frequency (MHz)	2305	2310	2315	3550	3630	3700
Average Gain (dB)	-2.9	-3.0	-3.0	-5.8	-5.2	-4.9

3.2.3. Peak Gain



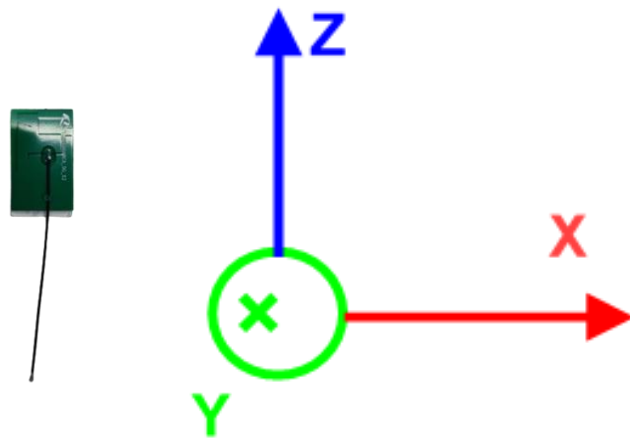
Peak Gain (dBi)

Frequency (MHz)	2305	2310	2315	3550	3630	3700
Peak Gain (dBi)	0.98	0.80	0.70	0.34	0.63	1.0

3.2.4. 3D & 2D Radiation Pattern

3.2.4.1. Test Condition: Free Space

- Test Chamber: GL-S-1



E1 – XOZ Plane (Phi 0 deg)	E2 – YOZ Plane (Phi 90 deg)	H – XOY Plane(Theta 90 deg)
<p>E1 Plane</p>	<p>E2 Plane</p>	<p>H Plane</p>

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
-	2023-12-19	Sly Liu/Lucky Feng	Creation of the document
1.0	2023-12-19	Sly Liu/Lucky Feng	First official release

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