



Antenna Datasheet

Product OC: Y4SCV0MA0DA

Version: 1.0

Date: 2025-07-24

Status: Preliminary

Product Name: BT Antenna

Key Features:

Frequency Band: 2400–2500 MHz

Dimensions: 28.9 mm × 13.95 mm

Efficiency: Up to 56.3%

RoHS and REACH Compliant

Antena Gain: 0.7dBi

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1 Specification

Test Condition: Assembled in test device

1.1. Electrical

Electrical	
Frequency Range	2400–2500 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional

Electrical - Detail												
SPEC	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
	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		-	-	-	-	-	-	1.7	-	-	-	-
Max. Return Loss (dB)		-	-	-	-	-	-	-12.0	-	-	-	-
AVG Eff. (%)		-	-	-	-	-	-	54.3	-	-	-	-
AVG AVG Gain (dB)		-	-	-	-	-	-	-2.6	-	-	-	-
Max. Peak Gain (dBi)		-	-	-	-	-	-	0.7	-	-	-	-
VSWR						≤ 2.0						
Return Loss						≤ -12.0						
Peak Gain						≤ 0.7 dBi						

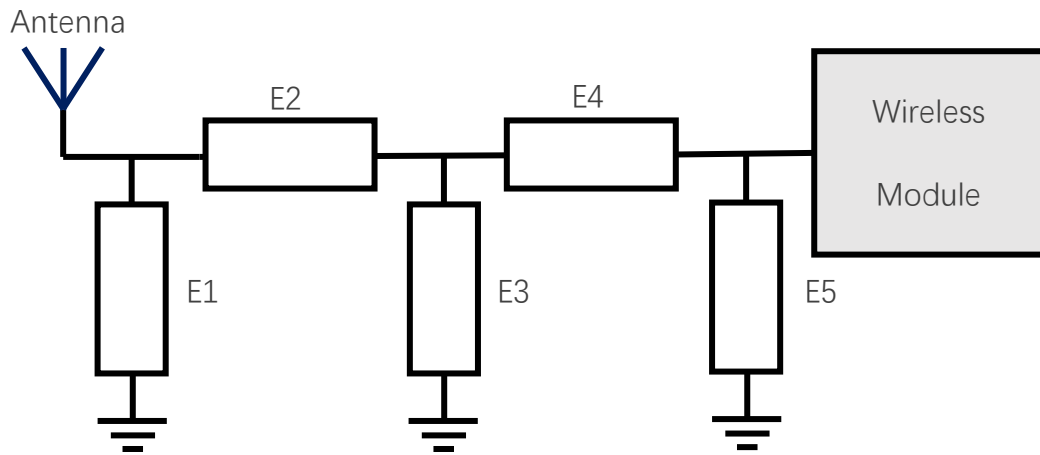
1.2. Mechanical & Environmental

Mechanical	
Antenna Dimensions	28.9 mm × 13.95 mm
Material & Color	FPC & Black
Cable & Length & Color	Φ 0.81 mm & 115 mm & Gray
Connector Type	ECT RF 2
Mounting Type	Adhesive
Weight	Typ. 0.5 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
RoHS & REACH Compliant	Yes

1.3. Antenna Assembly

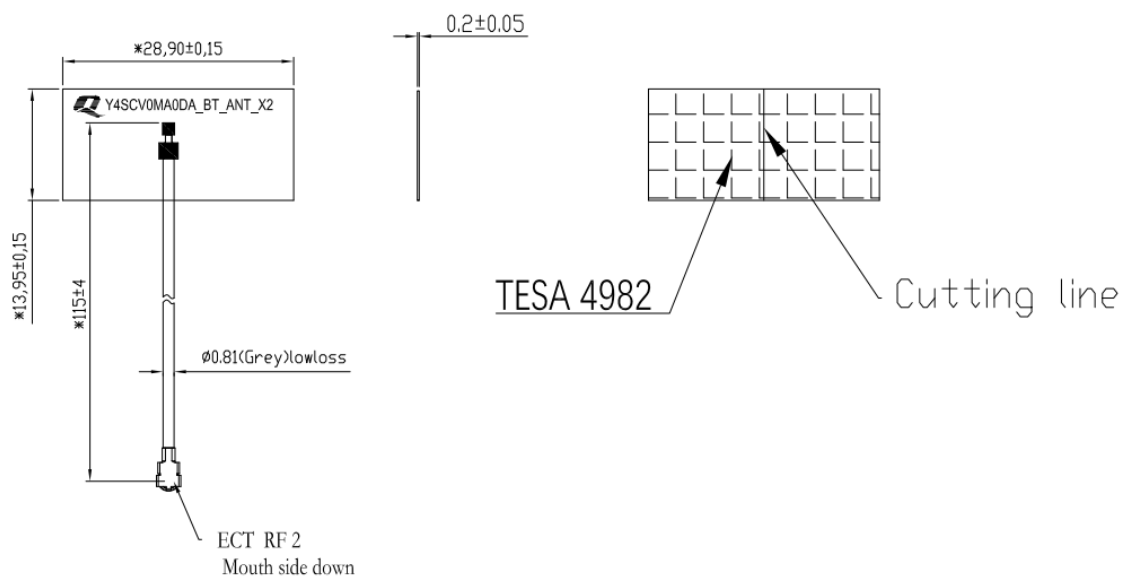


1.4. Matching Circuit



	E1	E1	E3	E4	E5
Default Matching	DNI	0 Ohm	DNI	0 Ohm	DNI
Tolerance	N/A		N/A		N/A

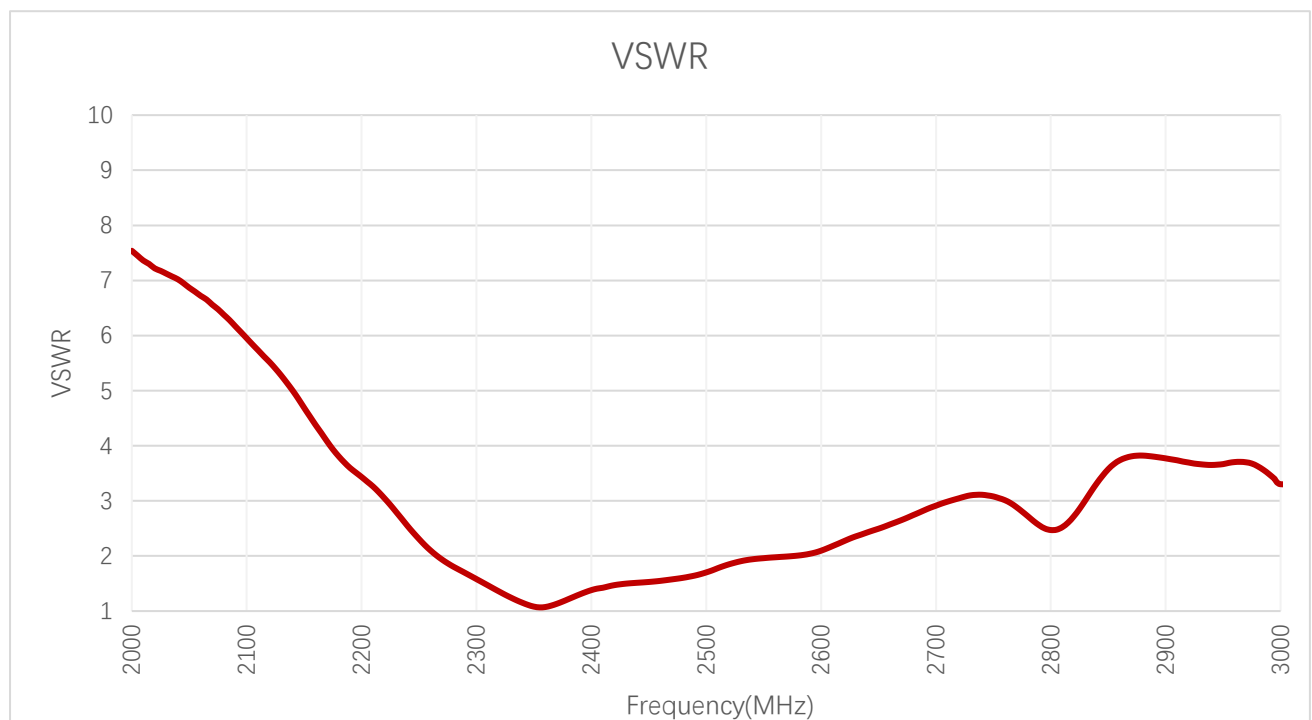
2 Drawing



3 Detailed Performance

3.1. S-Parameter Test

3.1.1. VSWR

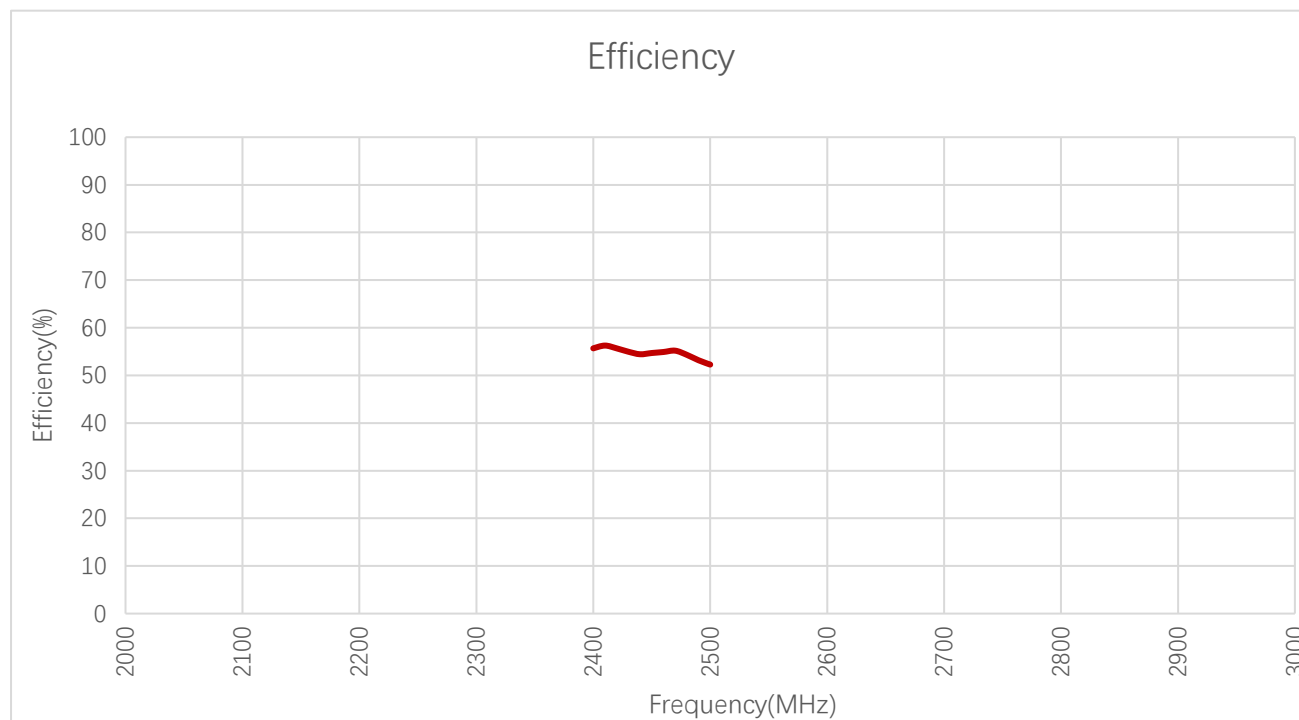


VSWR

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
VSWR	1.4	1.5	1.7	-	-	-	-	-	-

3.2. Radiation Performance Test

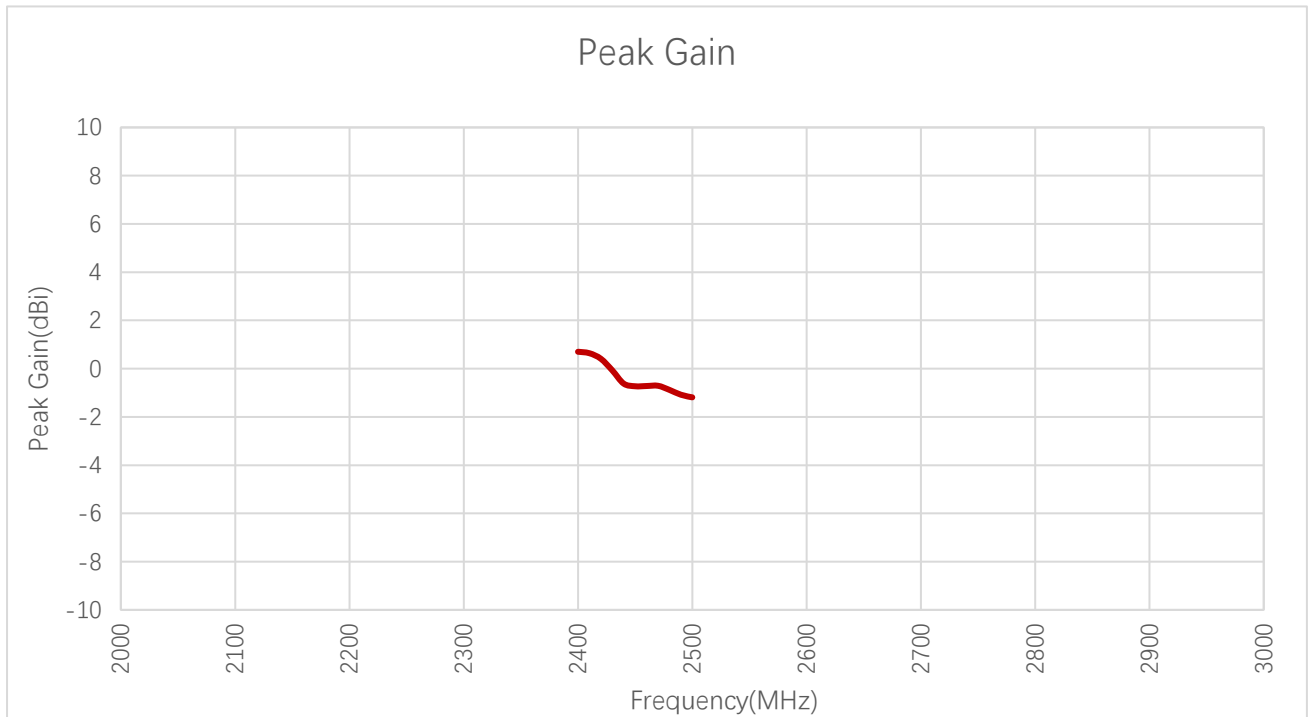
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
VSWR	55.7	54.7	52.3	-	-	-	-	-	-

3.2.2. Peak Gain

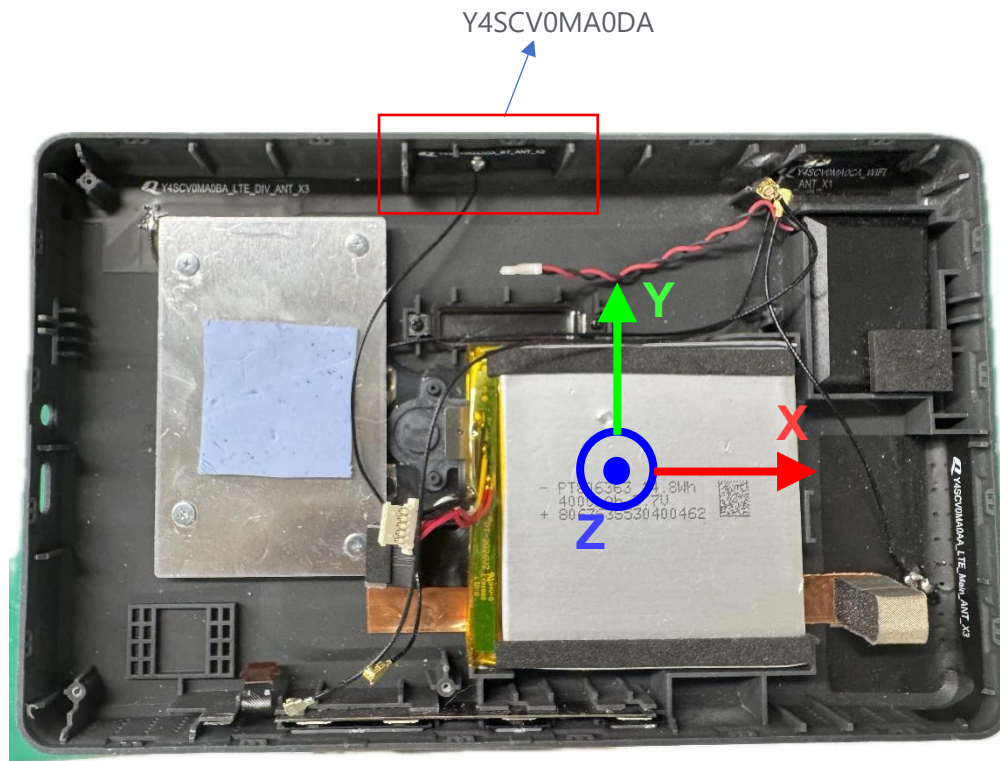


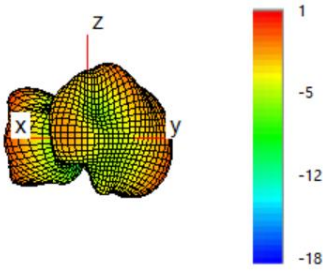
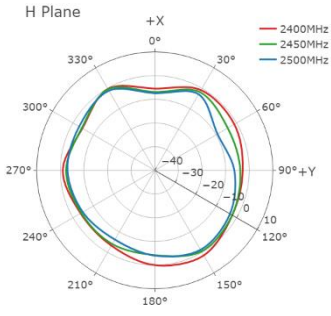
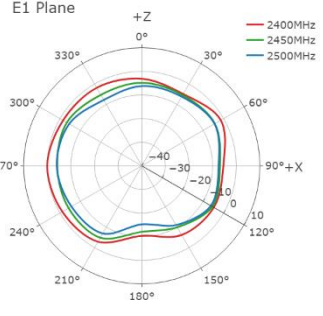
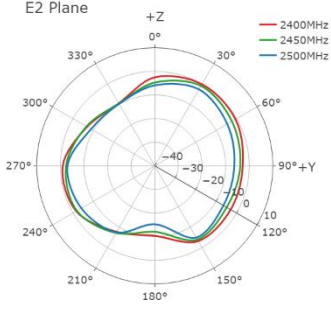
Peak Gain (dBi)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
VSWR	0.7	-0.7	-1.2	-	-	-	-	-	-

3.2.3. 3D & 2D Radiation Pattern

- Test Condition: Assembled in test device
- Test Chamber: GL-S-1



2450 MHz			
			
			

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
-	2025-07-24	Edwin XIAO/ Steven MO/ Rainey LIAO	Creation of the document
1.0	2025-07-24	Edwin XIAO/ Steven MO/ Rainey LIAO	First official release



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