

Antenna YXU00A0AA Datasheet

Antenna Services

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About the Document

Revision History

Version	Date	Author	Note
-	2022-01-19	Toby WANG/ Christopher YAO	Creation of the document
1.0	2022-02-11	Toby WANG/ Christopher YAO	First official release

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1 Product Description

Quectel Wi-Fi antenna covers 2.4 GHz, 5 GHz, and up to 7 GHz bands, fully satisfying customers' requirements for Wi-Fi 5, Wi-Fi 6, and Wi-Fi 6E. There are various antenna types, including built-in FPC antenna, ceramic patch antenna, and other external antennas of different shapes or sizes. The antenna performance meets the customers' demands for efficiency, gain, and radiation and ensures the superior experience of the customers' products in use.

2 Product Features

- Cellular 2.4G, 5G, 6G & Wi-Fi
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications					
Frequency Range	2400–2500 MHz; 5150–7150 MHz				
Input Impendence	50 Ω				
VSWR	≤ 3.0				
Gain	≤ 3.49 dBi				
Polarization Type	Linear				
Mechanical Specifications					
Antenna Size	8.0 mm × 6.6 mm × 1.6 mm				
Casing	FR4				
Radiator	Cuprum				
Working Temperature	-30 °C to +130 °C				
Radome Color	Black				

4 Overall Performance

4.1. Test Environment

- KEYSIGHT VNA Network Analyzer E5063A 100 kHz 8.5 GHz
- RayZone[®] 2800 Chamber 5G (FR1) SISO/MIMO, 600 MHz 8.5 GHz



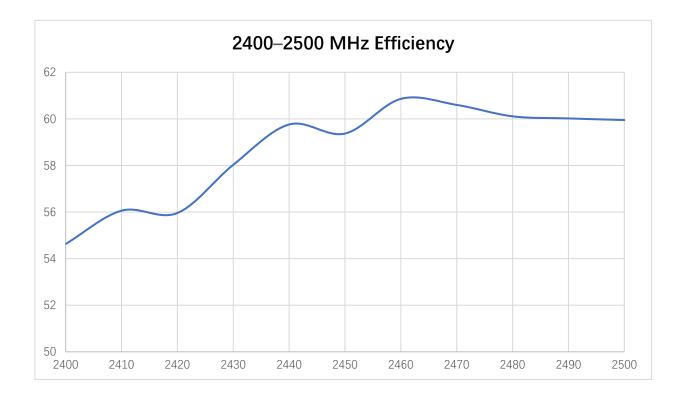


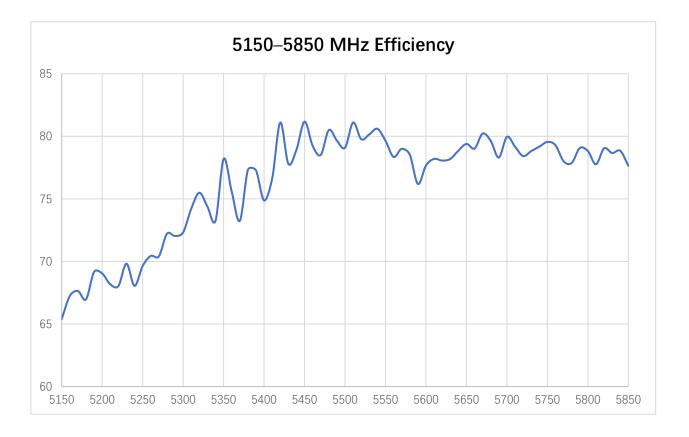
4.2. **VSWR**

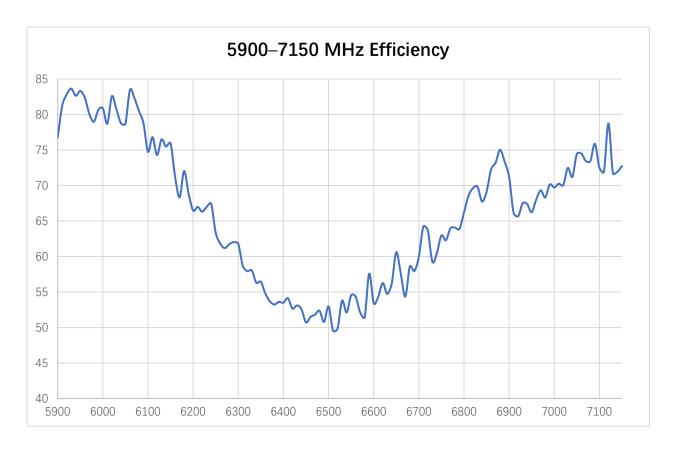
Trc1 SWR 1U/参考1U Cal C	Off Offs	1~
11	Ů N N	M1 2.400000 GHz 2.464 U
- 10		M2 2.450000 GHz 1.590 U M3 2.500000 GHz 1.324 U
		M4 5.150000 GHz 2.651 U M5 5.850000 GHz 1.387 U
9		M6 5.925000 GHz 1.535 U
		M7 7.125000 GHz 1.524 U
8		
7		
о <u> </u>		
5		
	J N	
4	<u>}</u> ∖	
- 3	M4	
2 N12		M ⁴⁶ M7
10		
Ch1 起始 300 MHz	功率 -10 dBm 带宽 10 kHz TOSM P1,P2	终止 8 GHz

Frequency (MHz)	2400	2450	2500	5150	5850	5925	7125
VSWR	2.4	1.5	1.3	2.6	1.3	1.5	1.5

4.3. Efficiency



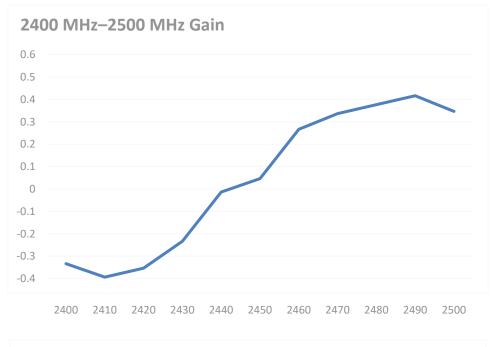


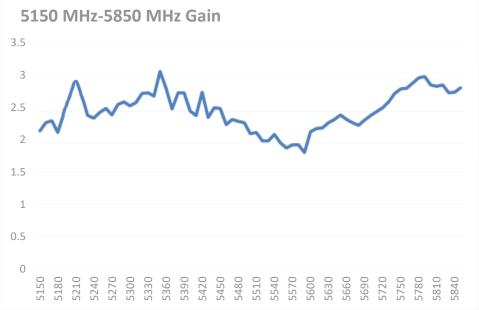


Frequency (MHz)	2400	2500	5150	5850	5900	7150
Efficiency (%)	54	59	65	77	76	72

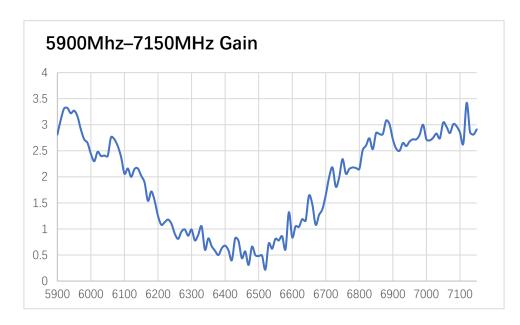


4.4. Gain





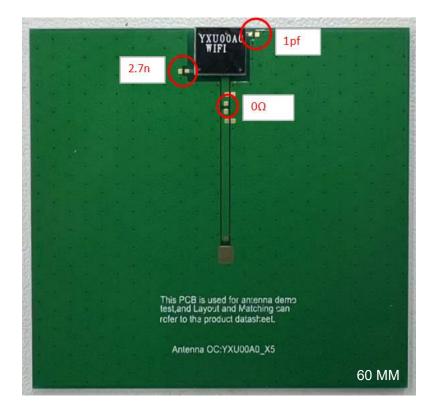


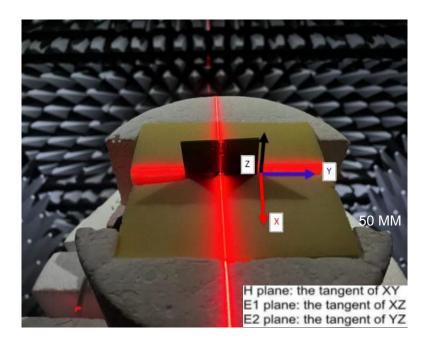


Frequency (MHz)	2400	2490	5210	5790	5900	7120
Gain (dBi)	-0.33	0.43	2.86	3.00	2.81	3.49

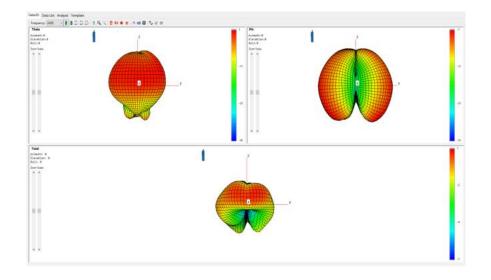
4.5. Radiation Pattern

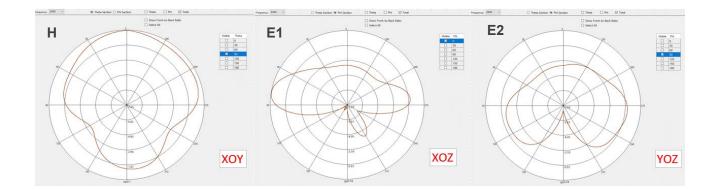
• Test condition: with ground plane (60 mm × 50 mm).



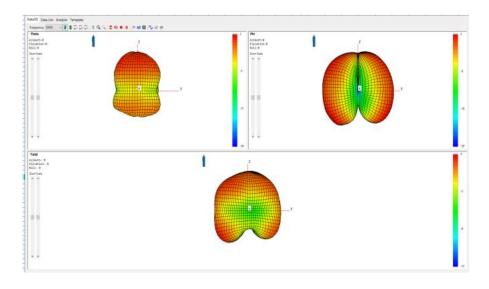


4.5.1. 2450 MHz

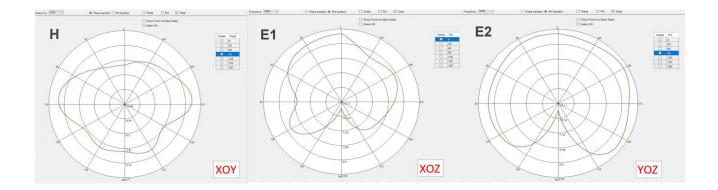




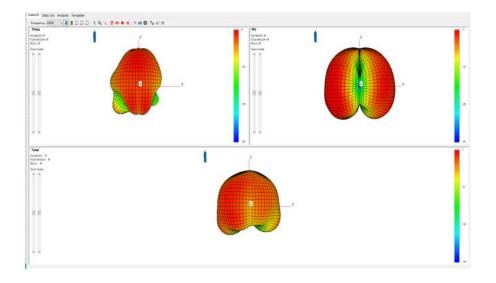
4.5.2. 5500 MHz

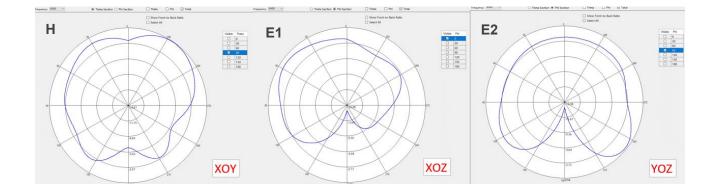




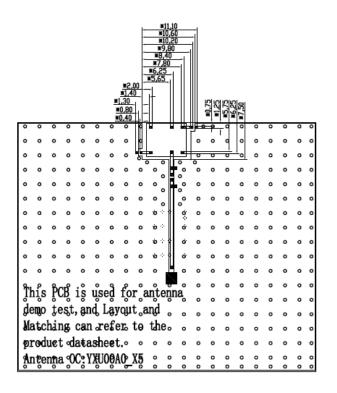


4.5.3. 6500 MHz

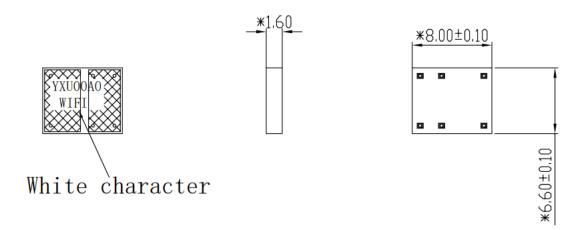




5 Product Size



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