

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. 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 Impedence	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

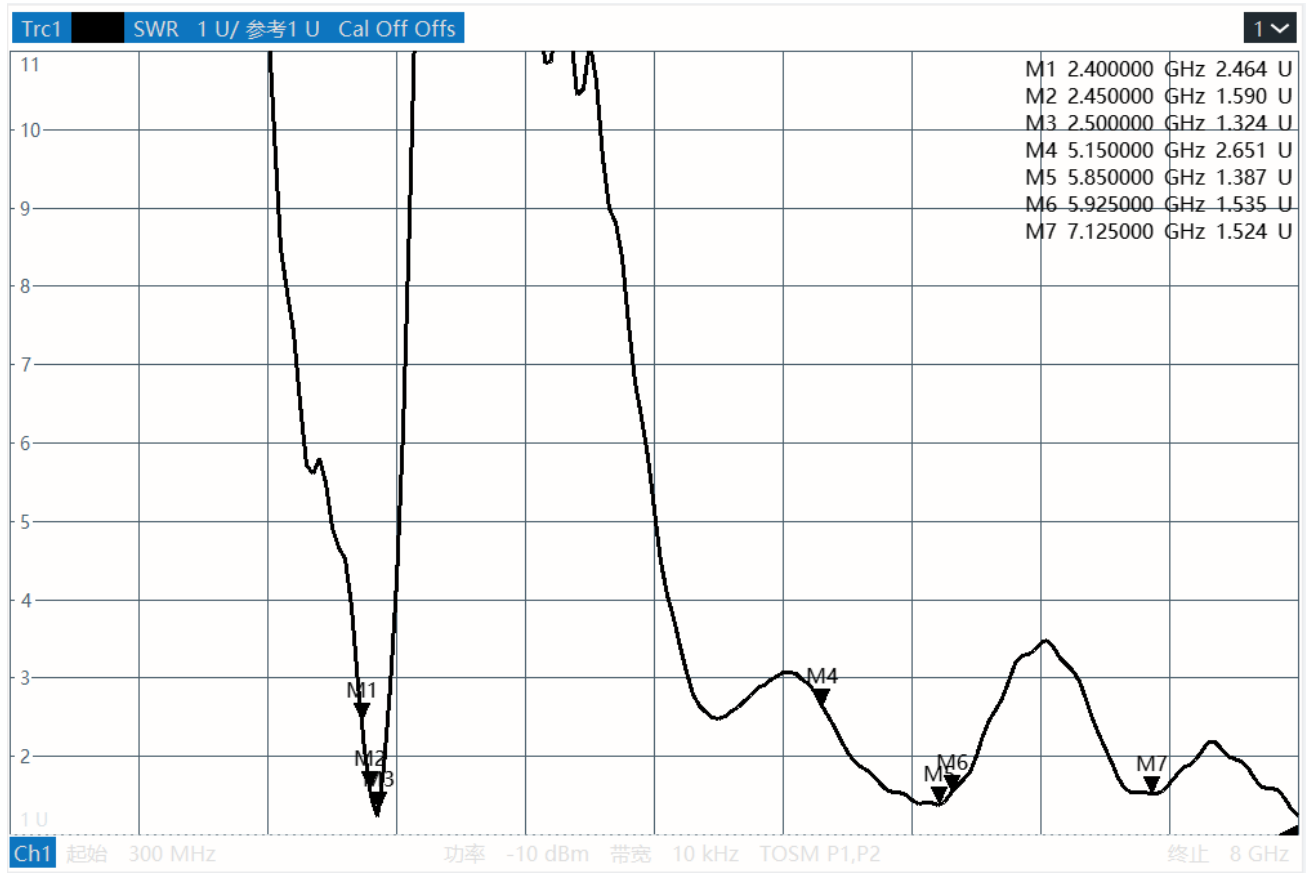
4 Overall Performance

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

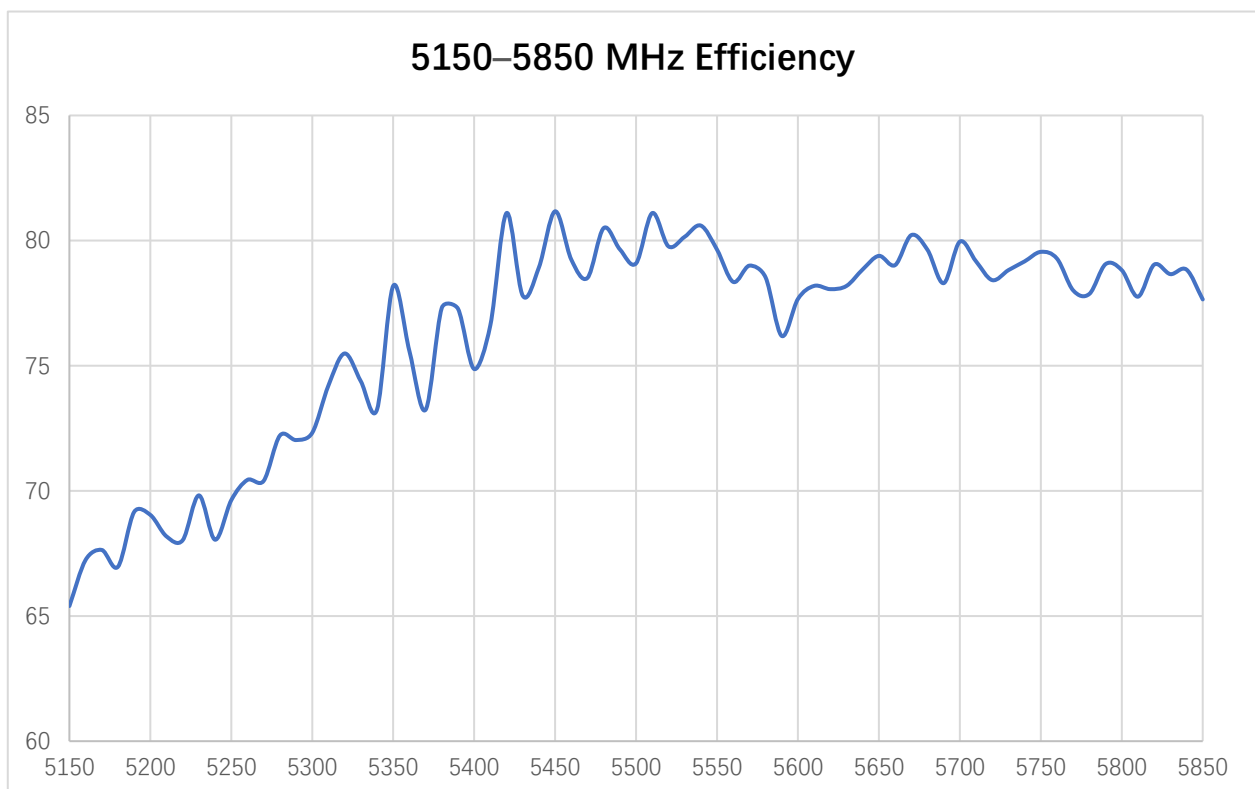
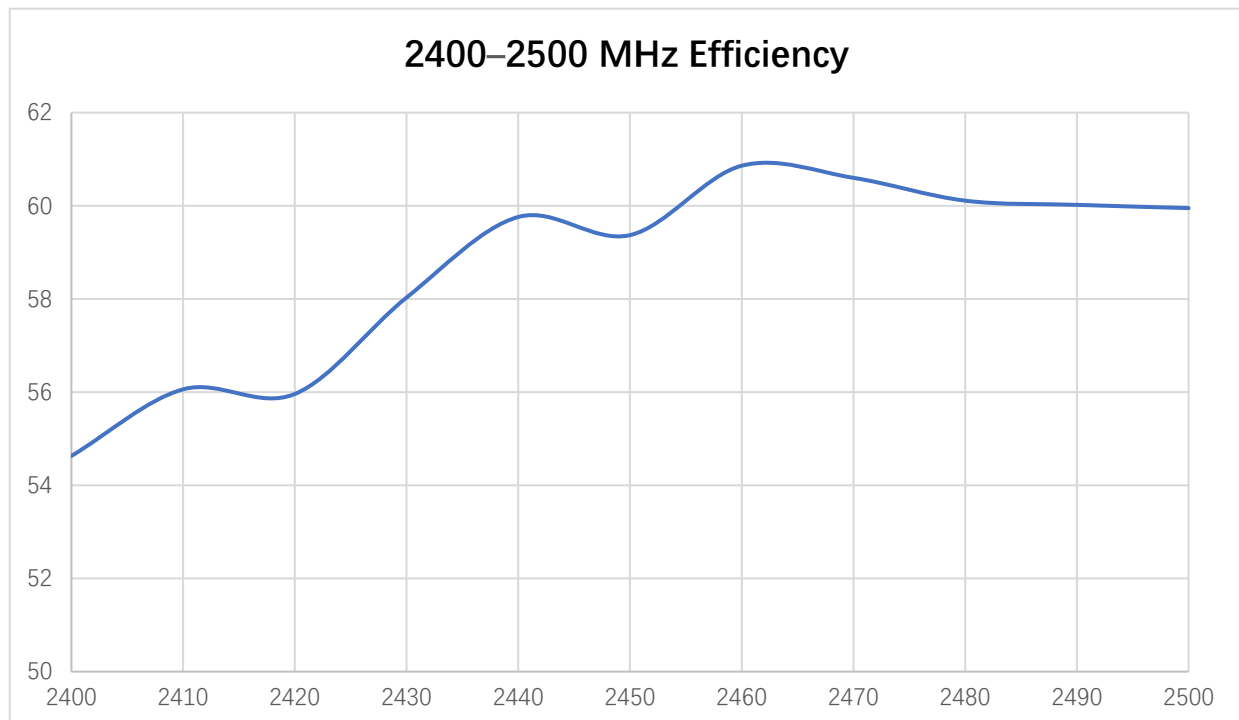


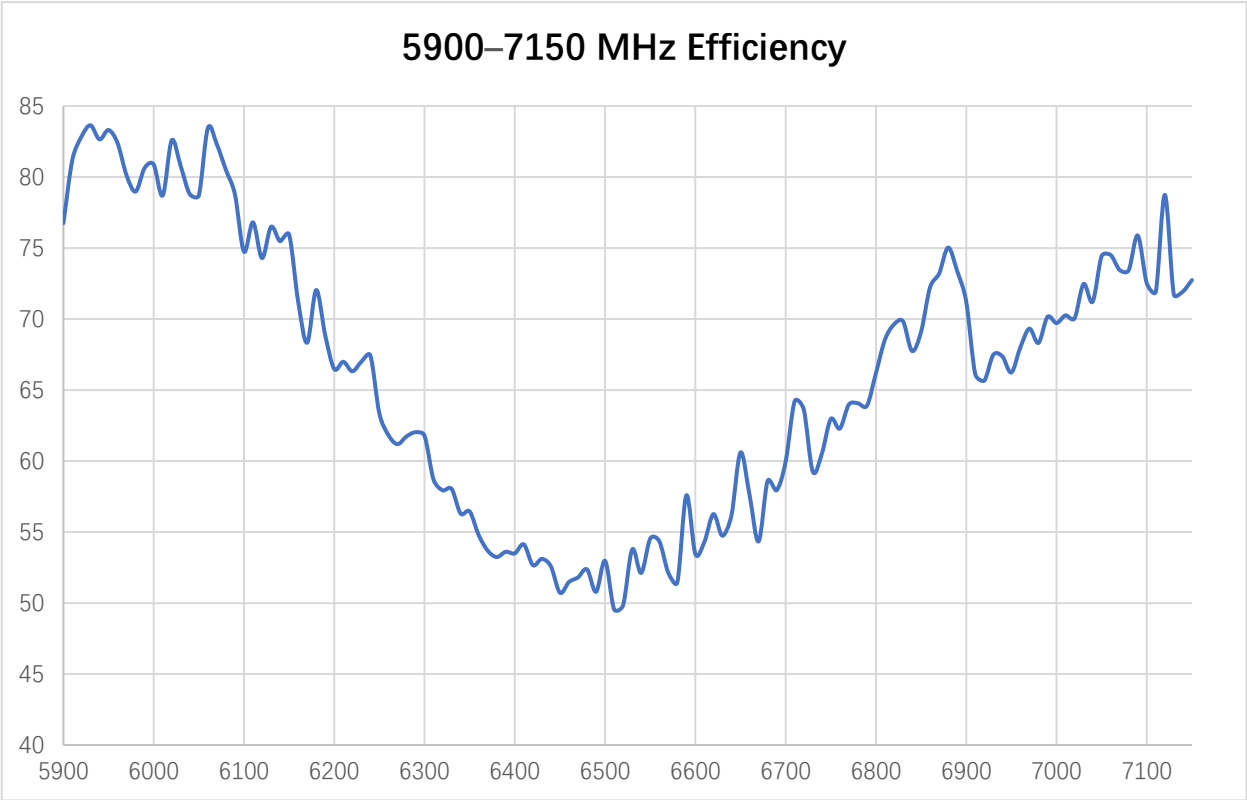
4.2. VSWR



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

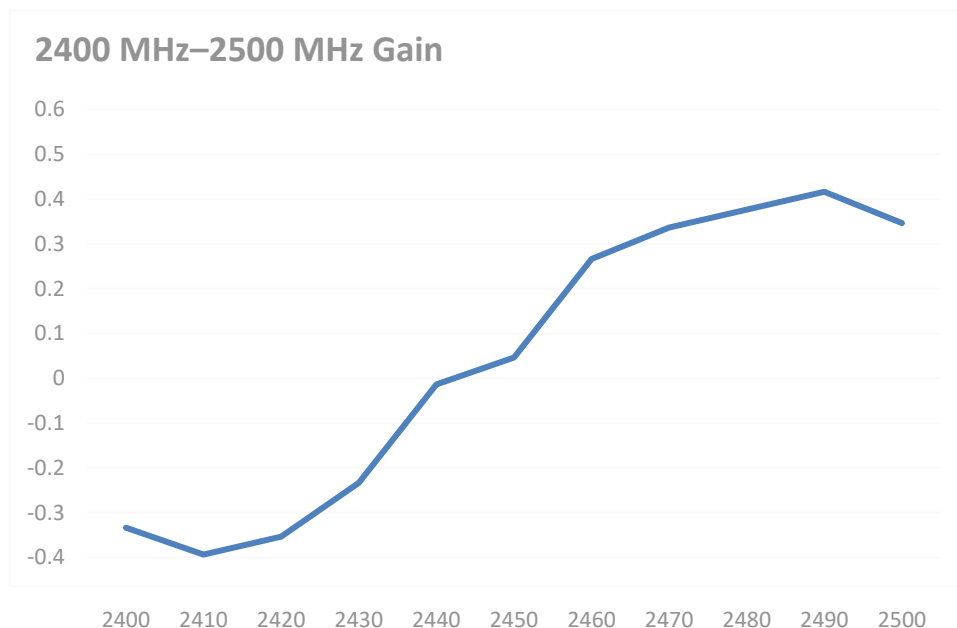
4.3. Efficiency



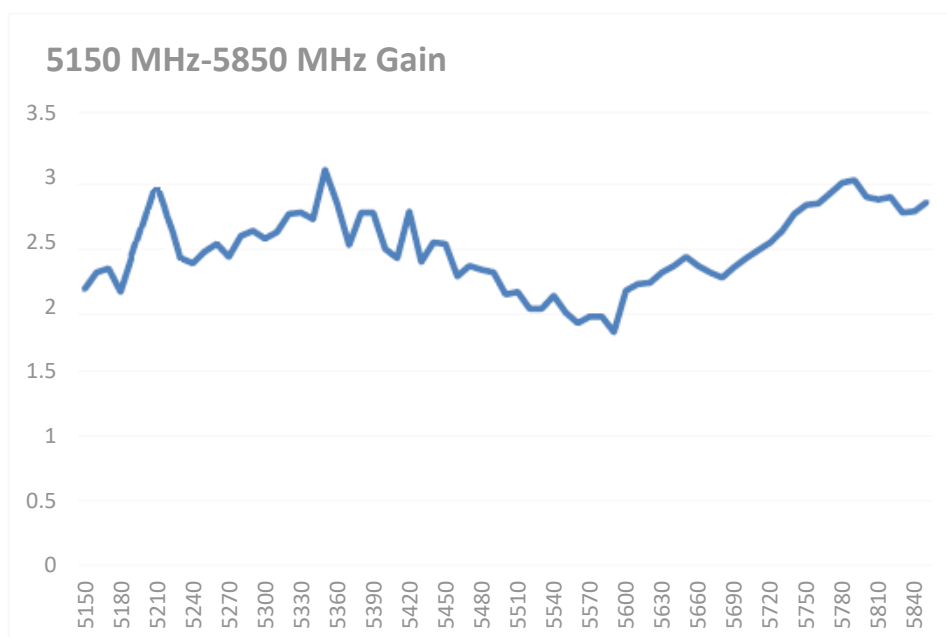


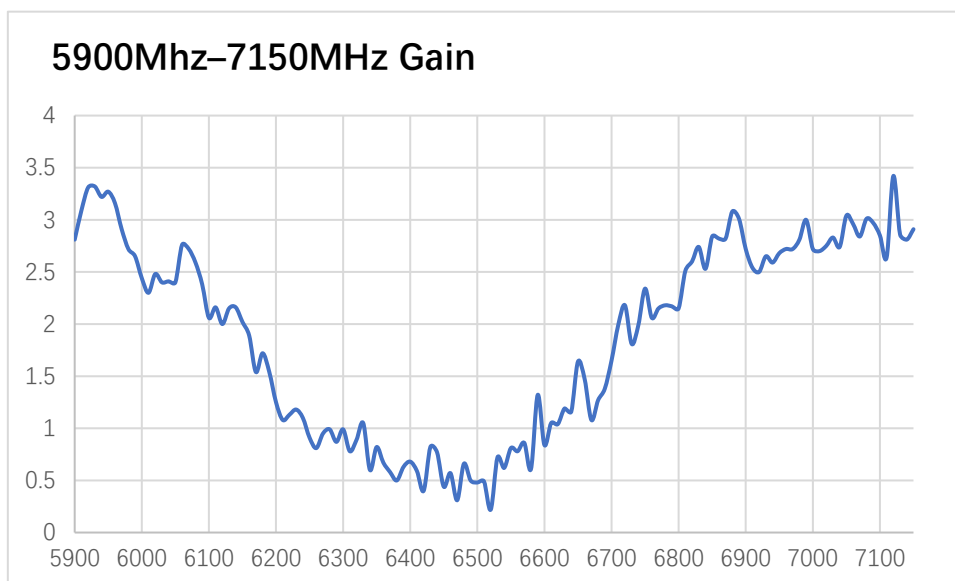
Frequency (MHz)	2400	2500	5150	5850	5900	7150
Efficiency (%)	54	59	65	77	76	72

4.4. Gain



Frequency (MHz)	2400	2410	2420	2430	2440	2450
Gain (dBi)	-0.33	-0.4	-0.35	-0.22	-0.01	0.05
Frequency (MHz)	2460	2470	2480	2490	2500	
Gain (dBi)	0.27	0.37	0.40	0.43	0.35	

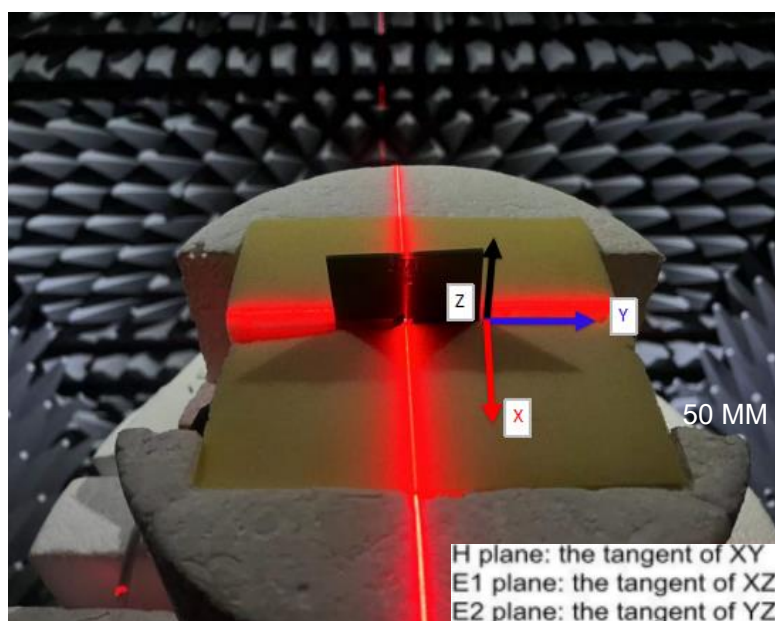
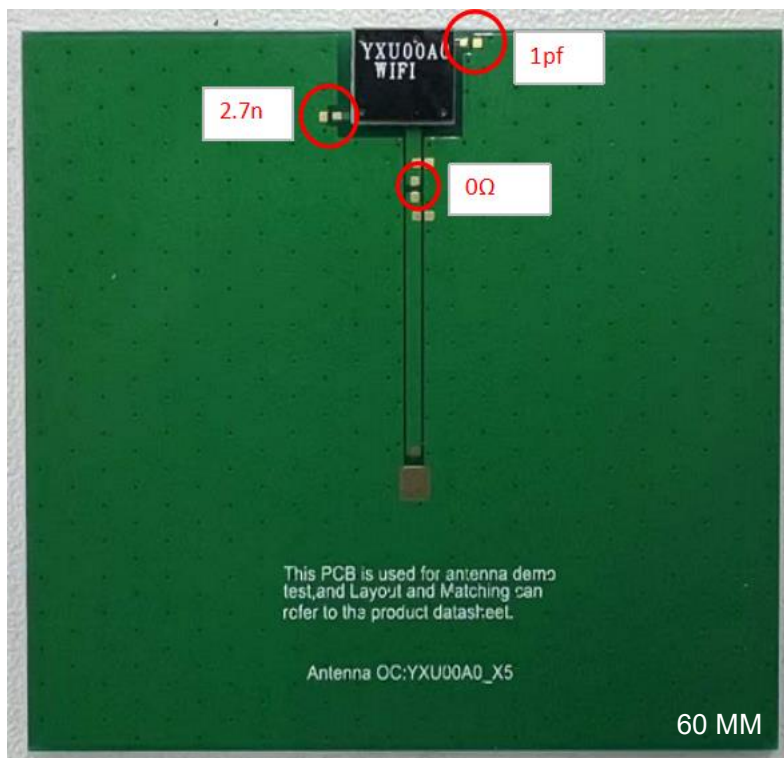




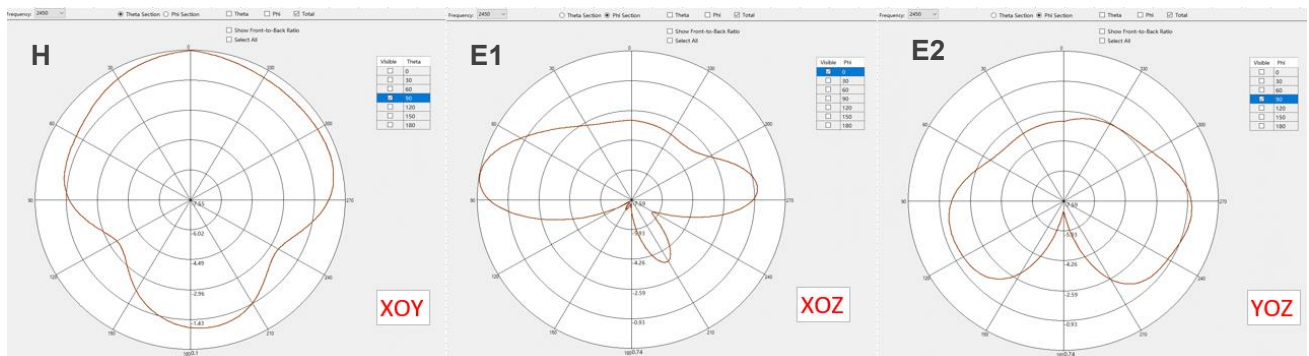
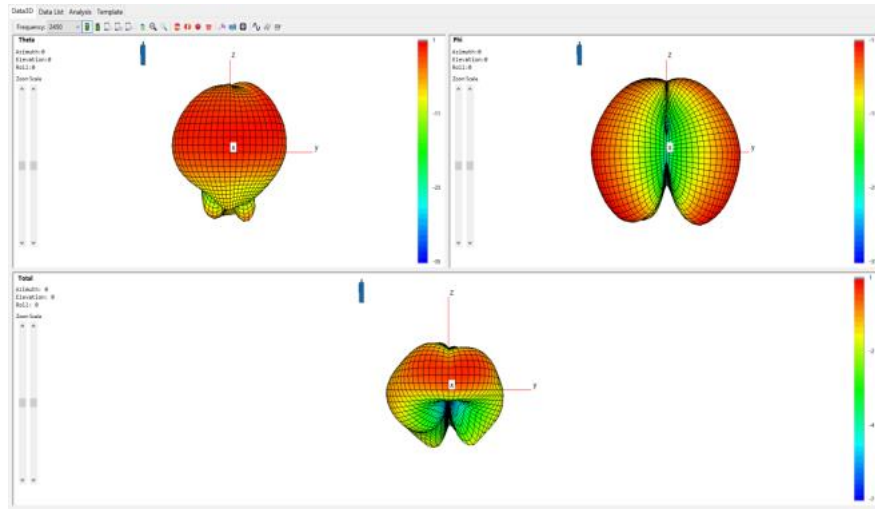
Frequency (MHz)	5180	5190	5200	5210	5220	5230
Gain (dBi)	2.30	2.50	2.81	3.00	2.80	2.42
Frequency (MHz)	5240					
Gain (dBi)	2.40					
Frequency (MHz)	5745	5755	5765	5775	5785	5795
Gain (dBi)	2.70	2.76	2.87	3.10	3.12	3.11
Frequency (MHz)	5805	5815	5825			
Gain (dBi)	2.91	2.90	2.69			

4.5. Radiation Pattern

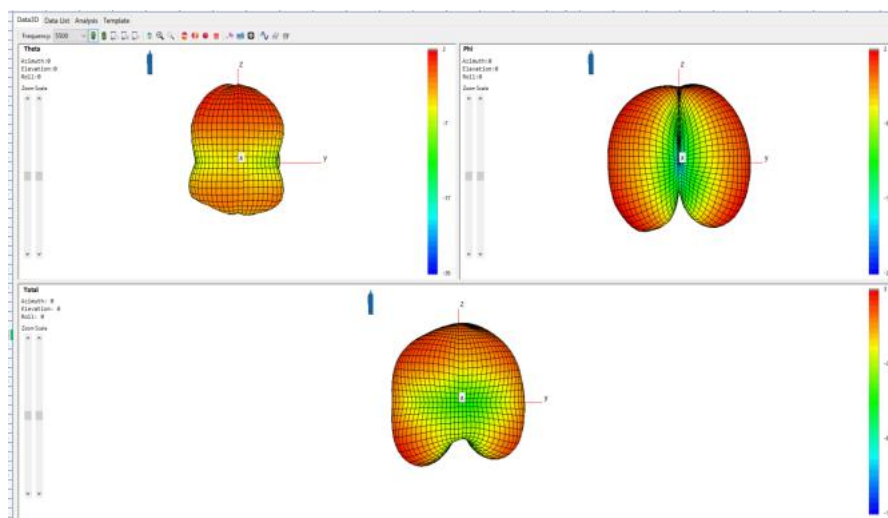
- Test condition: with ground plane (60 mm × 50 mm).

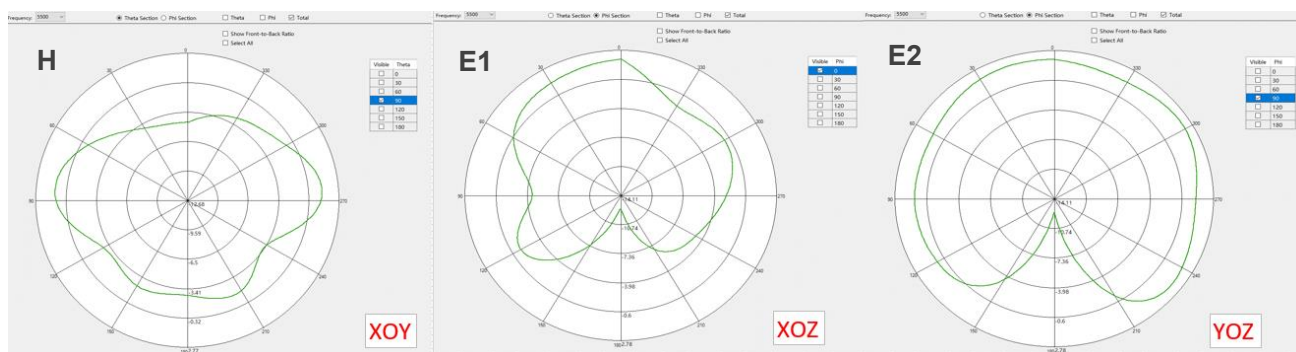


4.5.1. 2450 MHz

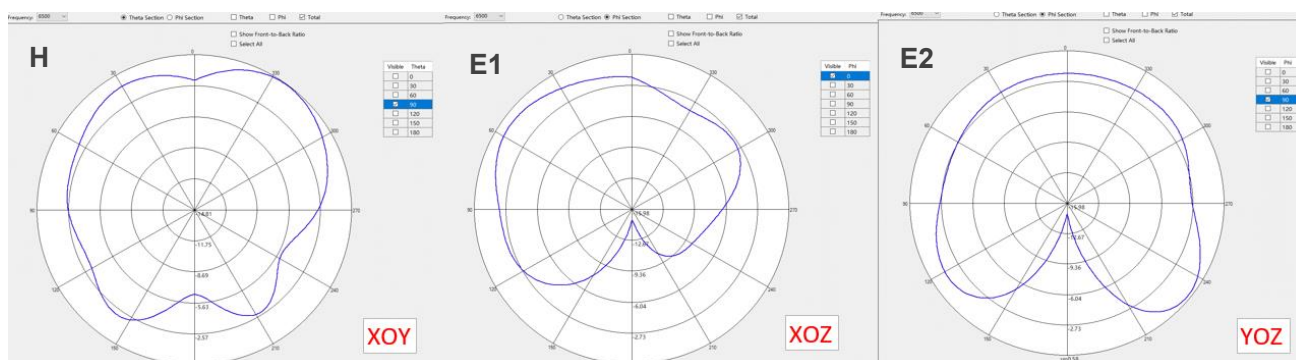
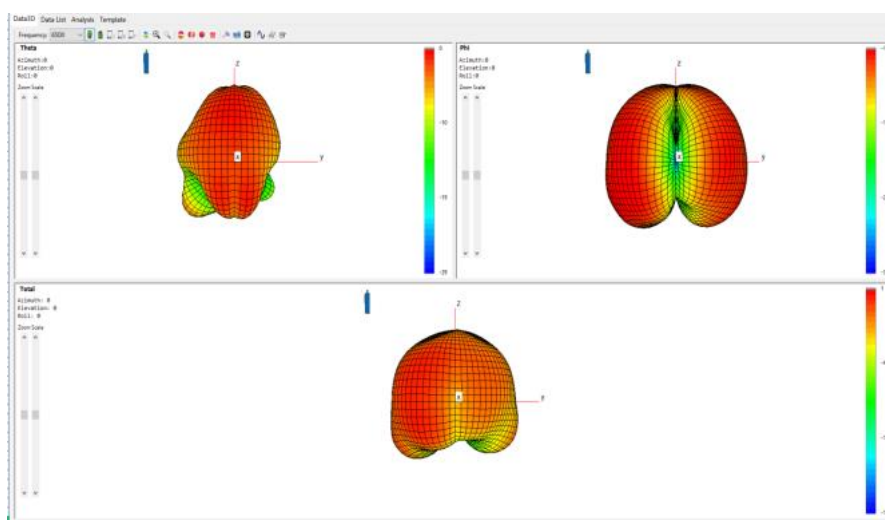


4.5.2. 5500 MHz

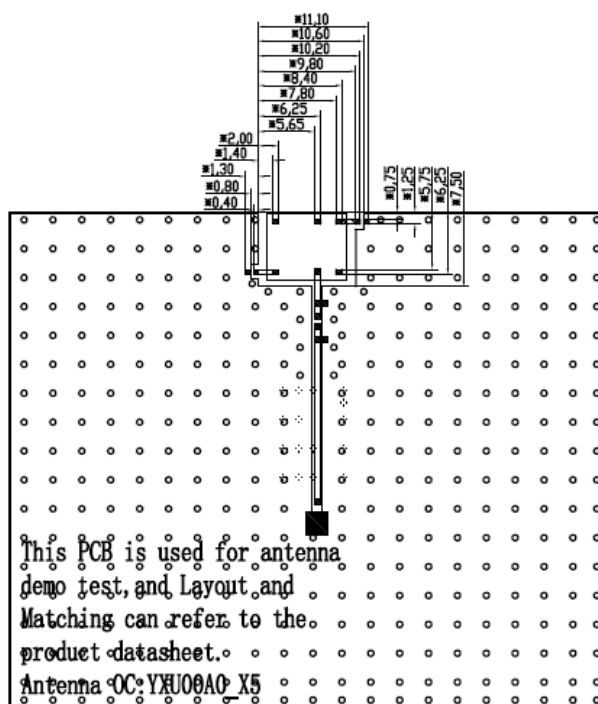




4.5.3. 6500 MHz



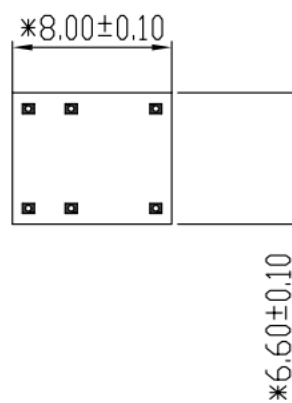
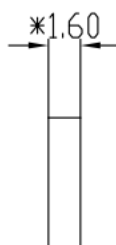
5 Product Size



ROHS



White character



Mouser Electronics

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