

Antenna

YXU00A0AA Datasheet

Antenna Services

Version: 1.0

Date: 2022-02-11

Status: Released



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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 Impedence	50 Ω
VSWR	≤ 3.0
Gain	≤ 3.5 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Size	8.0 mm \times 6.6 mm \times 1.6 mm
Casing	FR4
Radiator	Cuprum
Working Temperature	-30 $^{\circ}$ C to +130 $^{\circ}$ C
Radome Color	Black

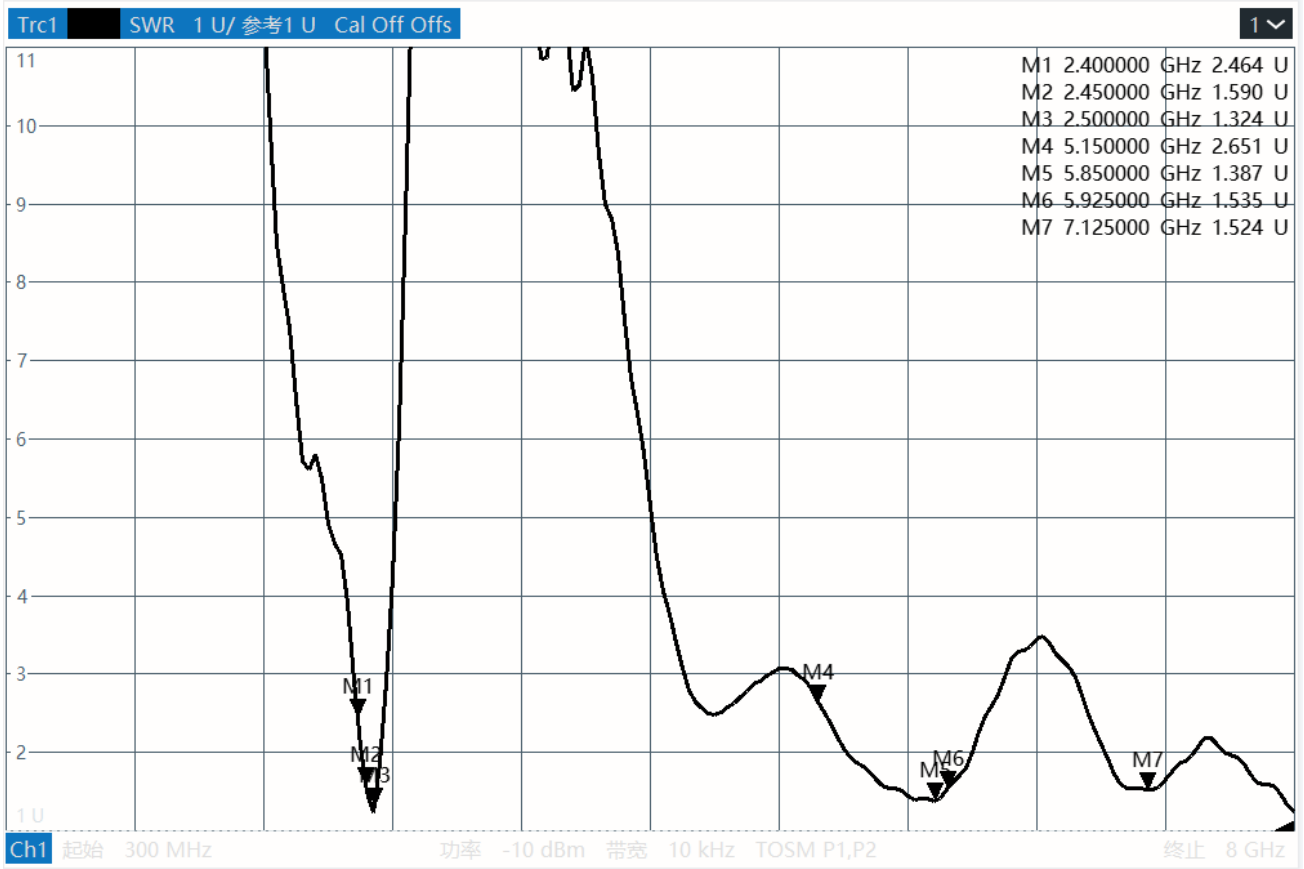
4 Overall Performance

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

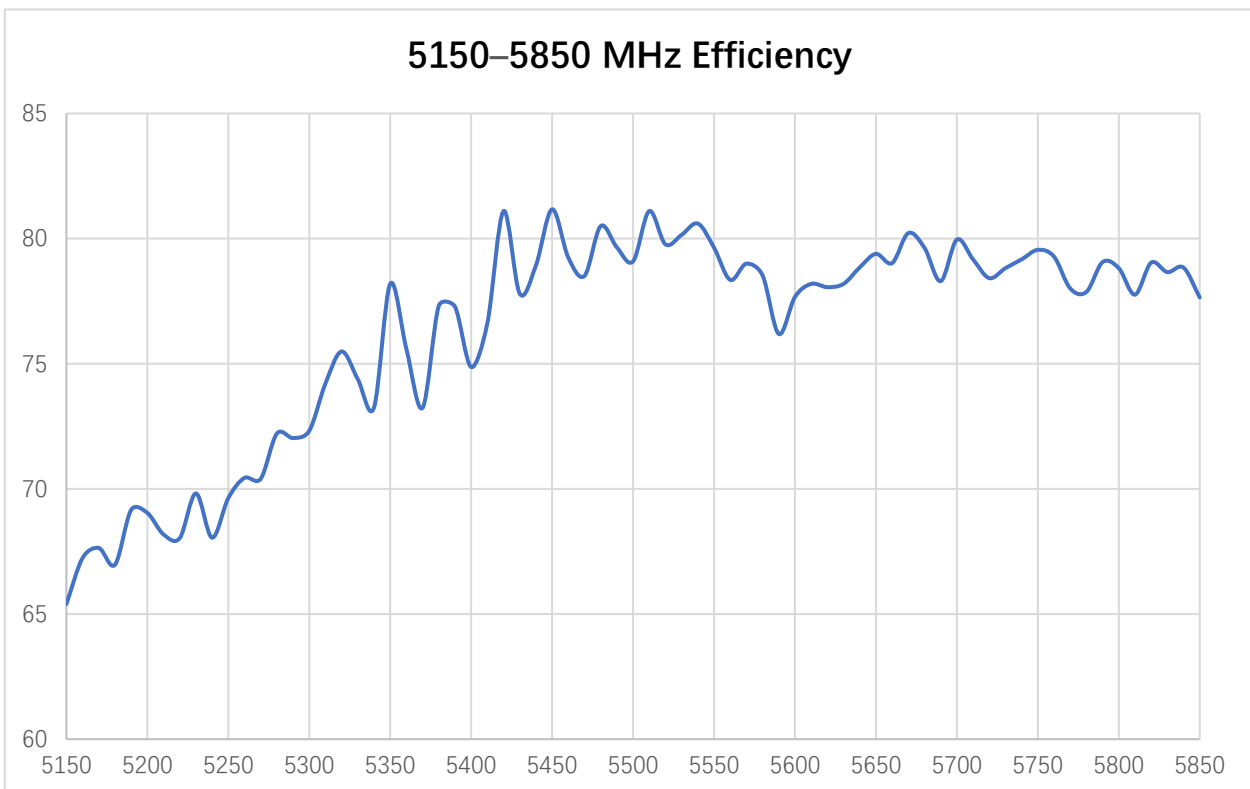
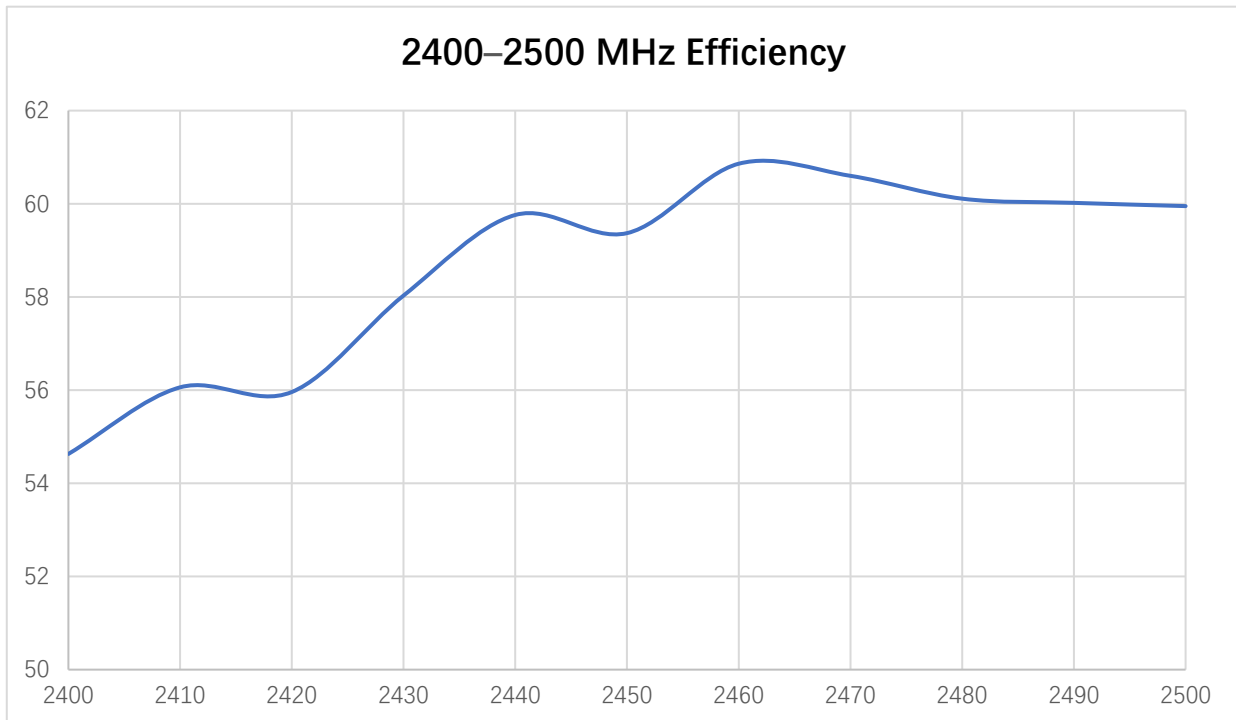


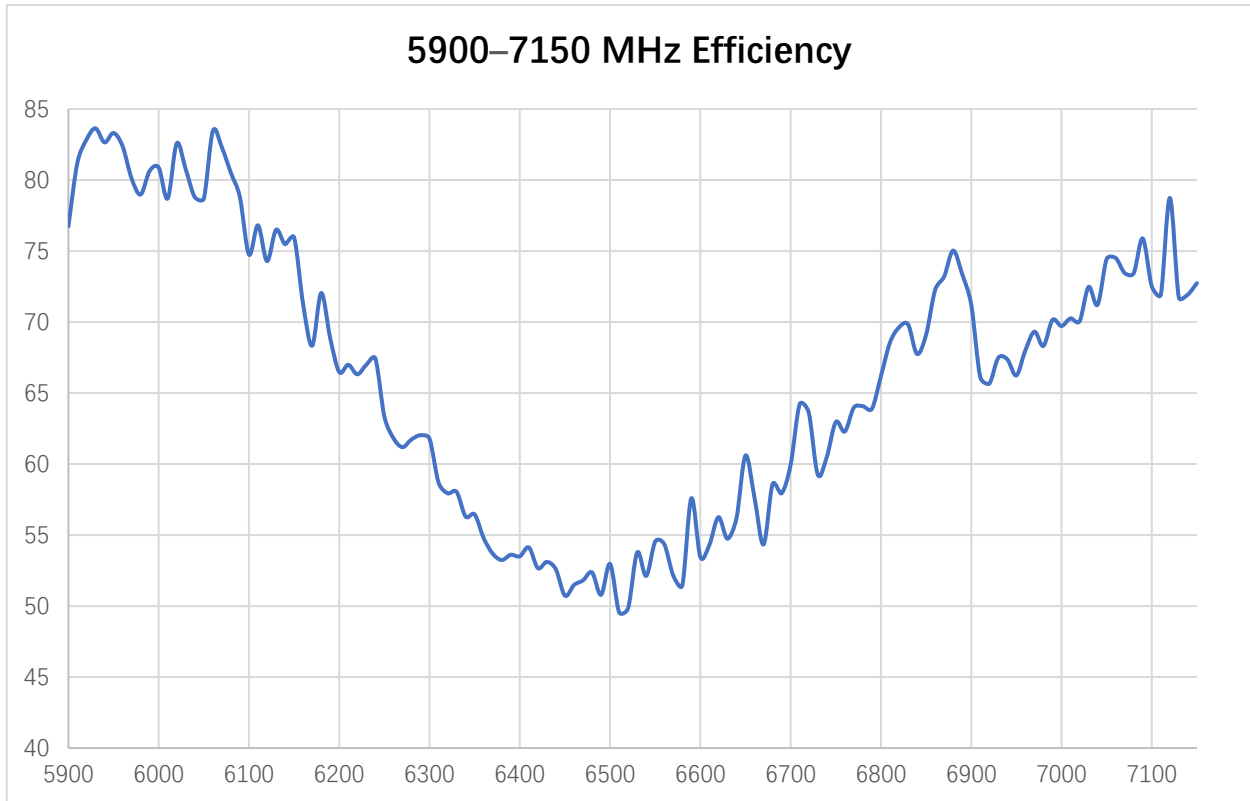
4.2. VSWR



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

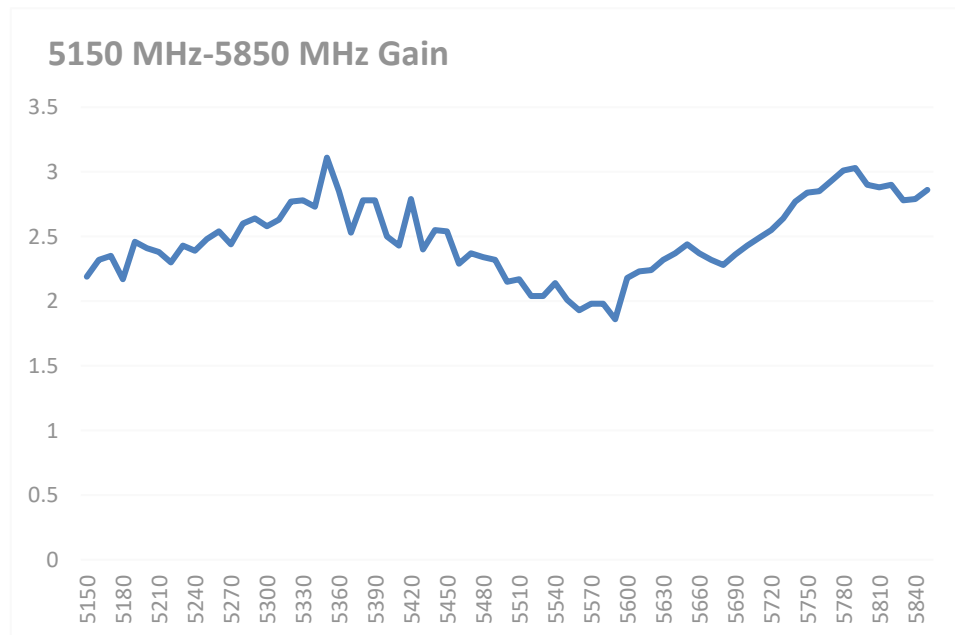
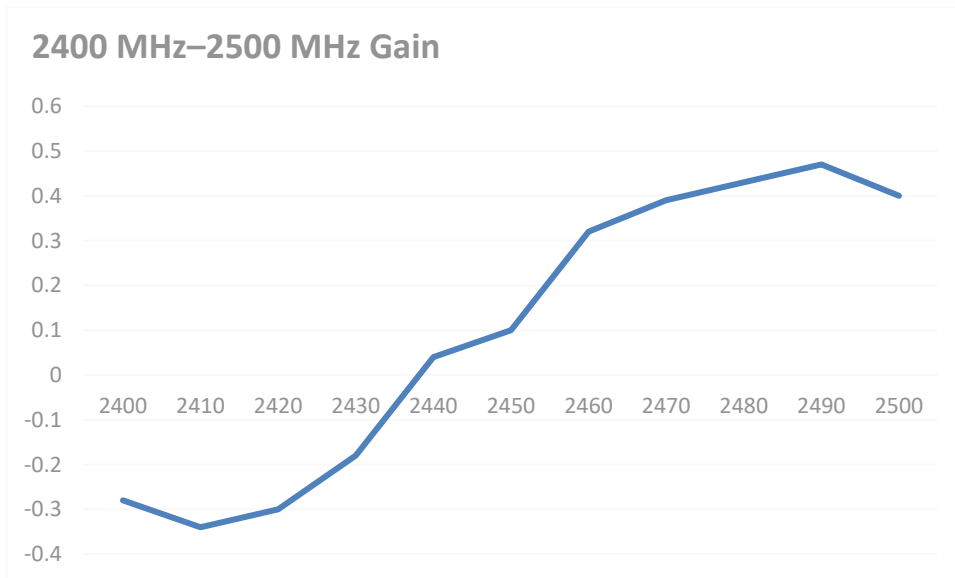
4.3. Efficiency

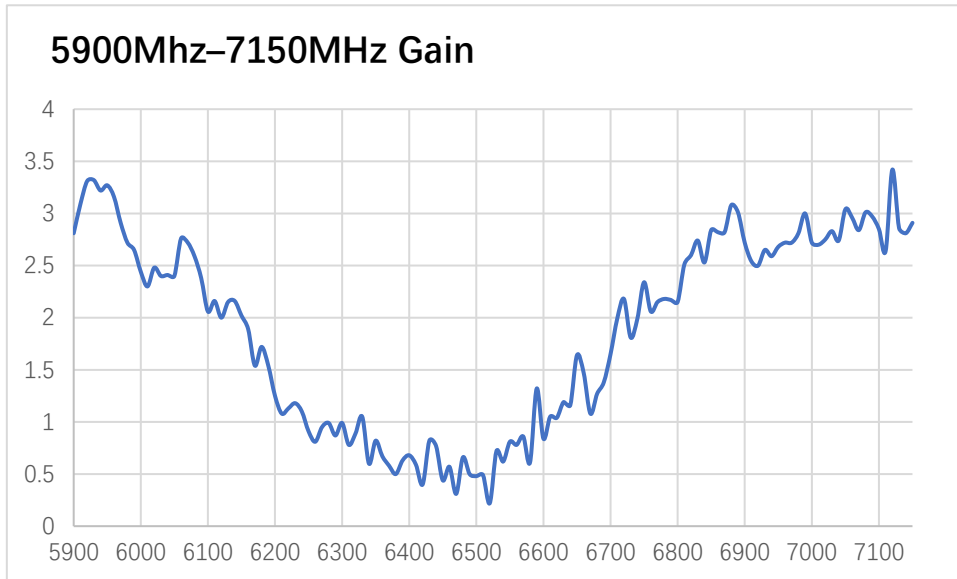




Frequency (MHz)	2400	2500	5150	5850	5900	7150
Efficiency (%)	54	59	65	77	76	72

4.4. Gain

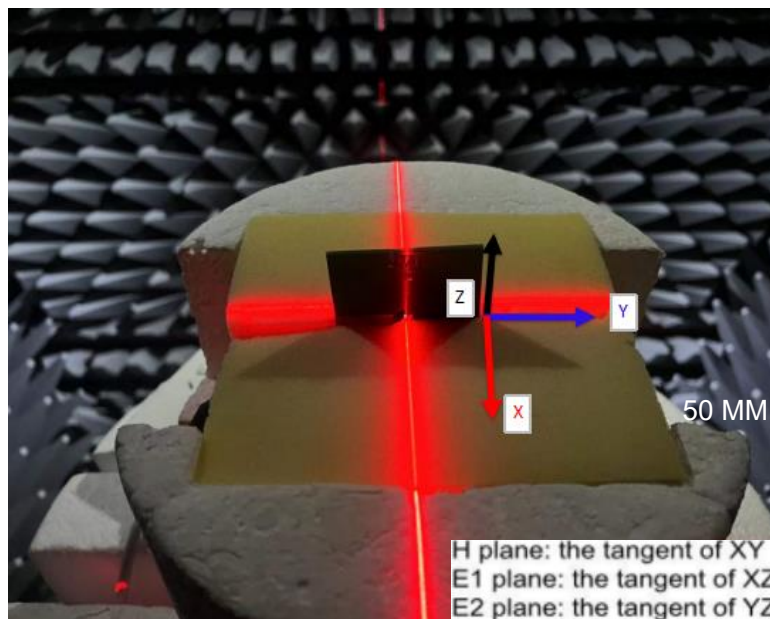
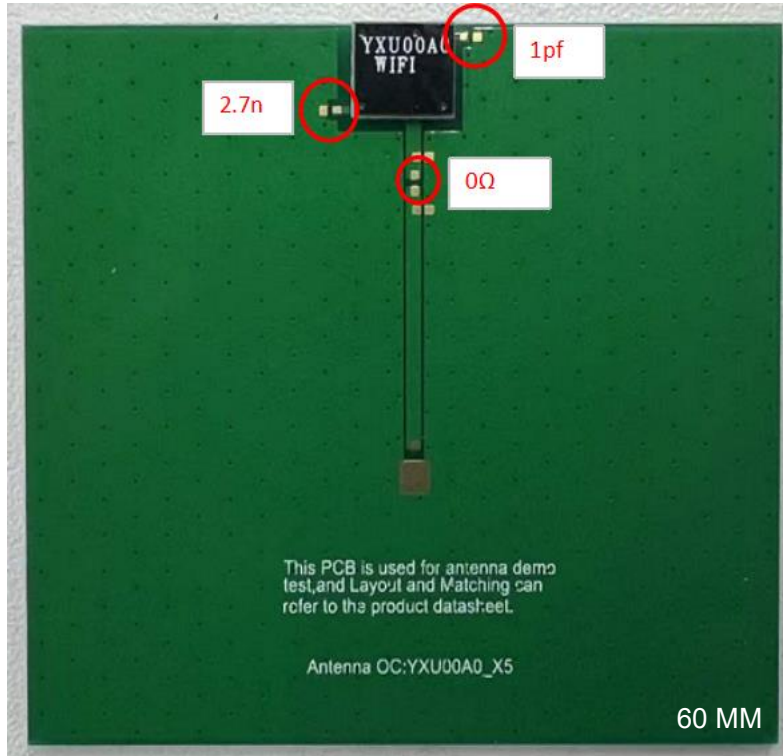




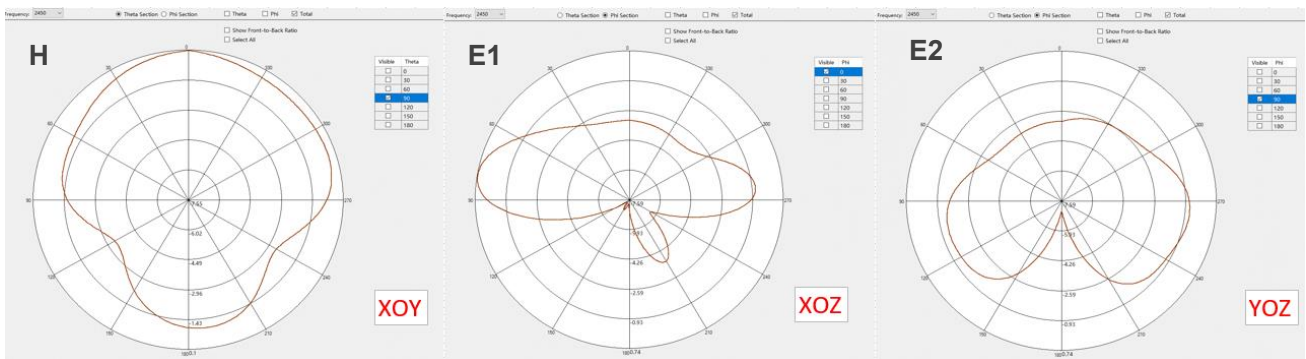
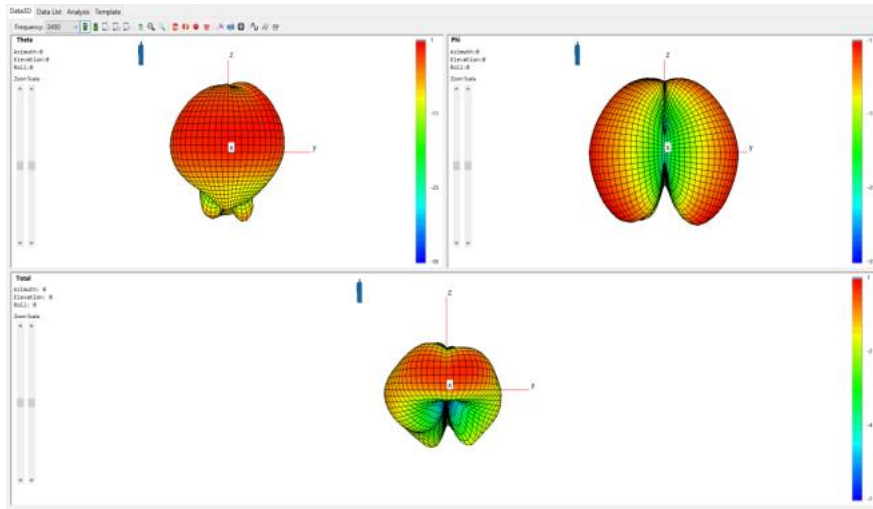
Frequency (MHz)	2400	2500	5150	5850	5900	7150
Gain (dBi)	-0.28	0.4	2.19	2.86	2.81	2.91

4.5. Radiation Pattern

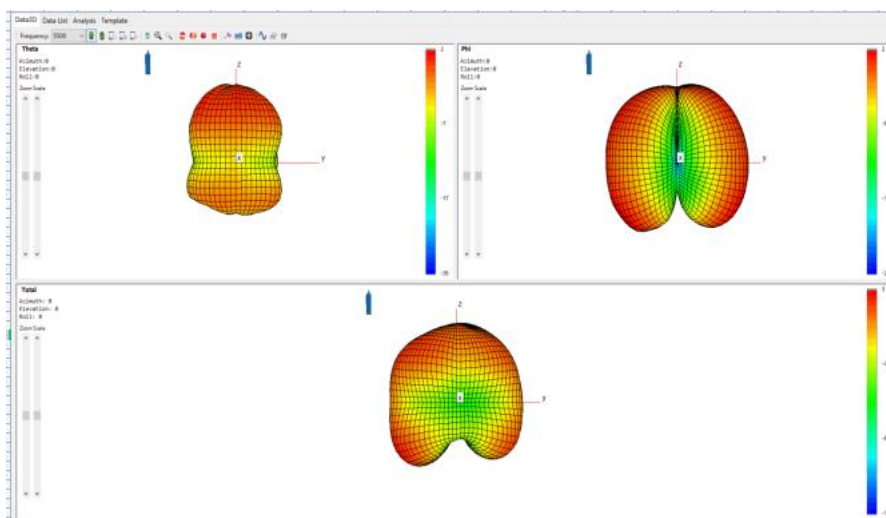
- Test condition: with ground plane (60 mm × 50 mm).

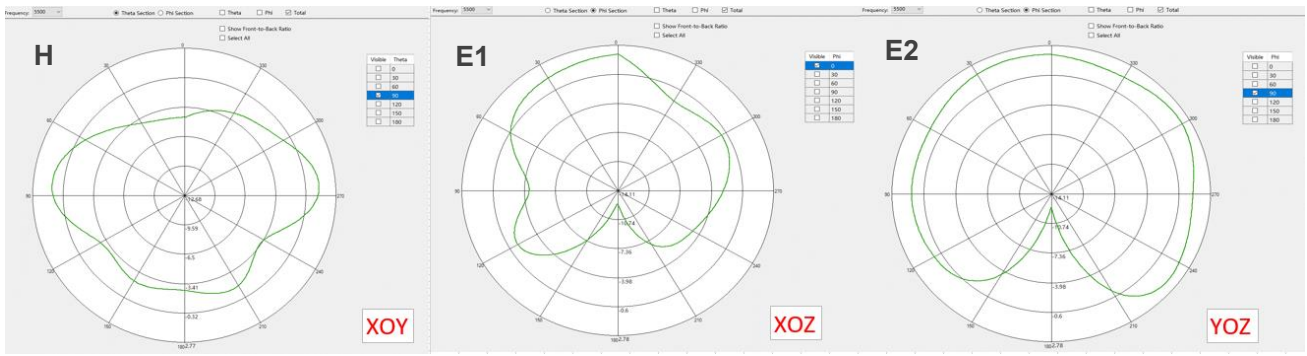


4.5.1. 2450 MHz

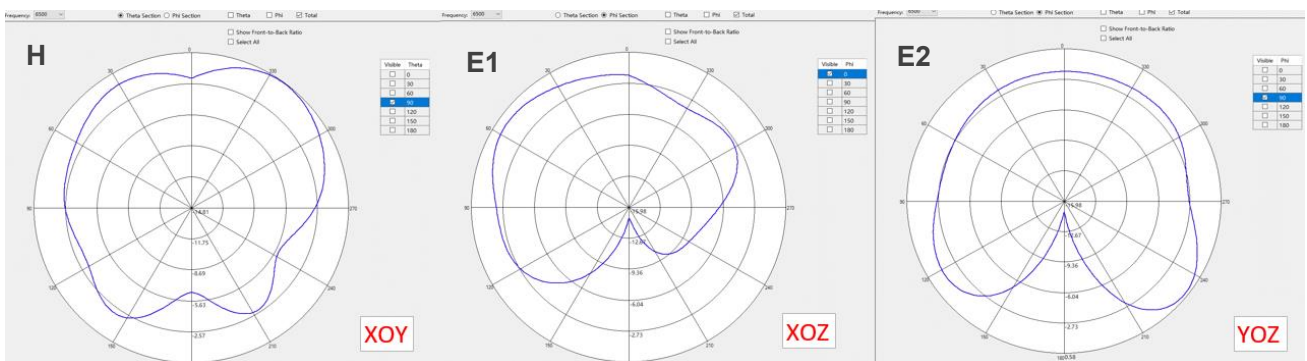
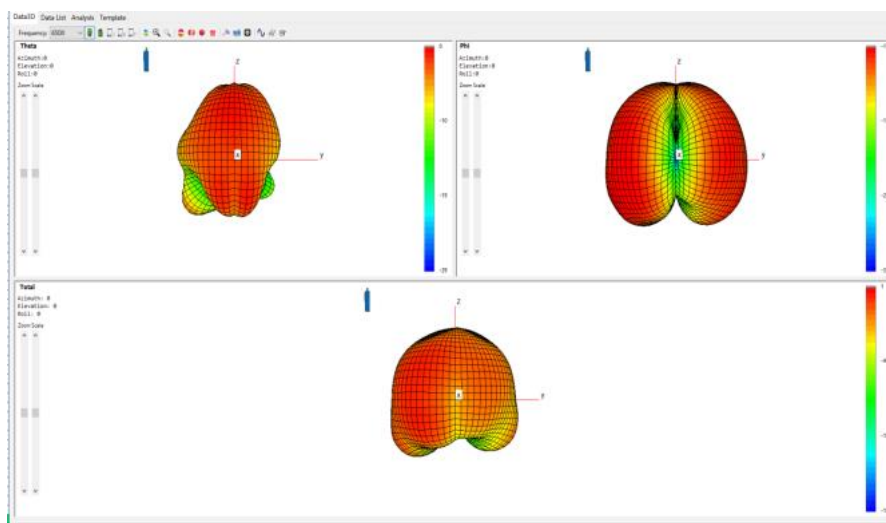


4.5.2. 5500 MHz

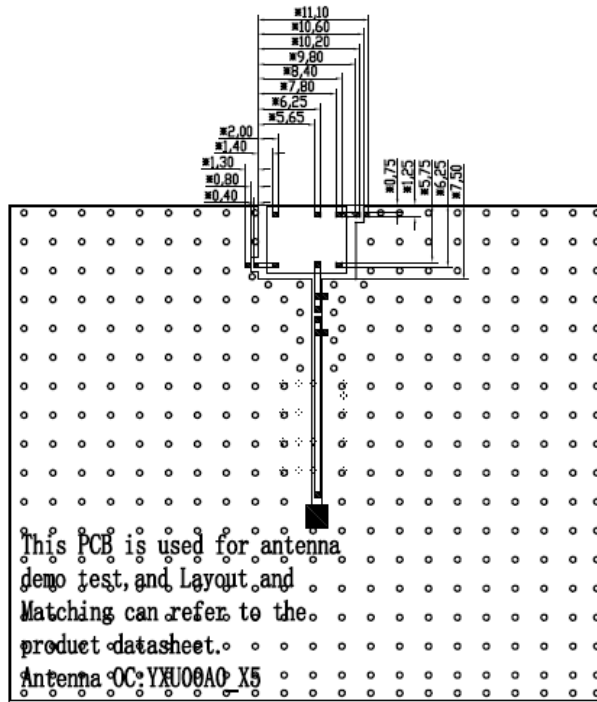




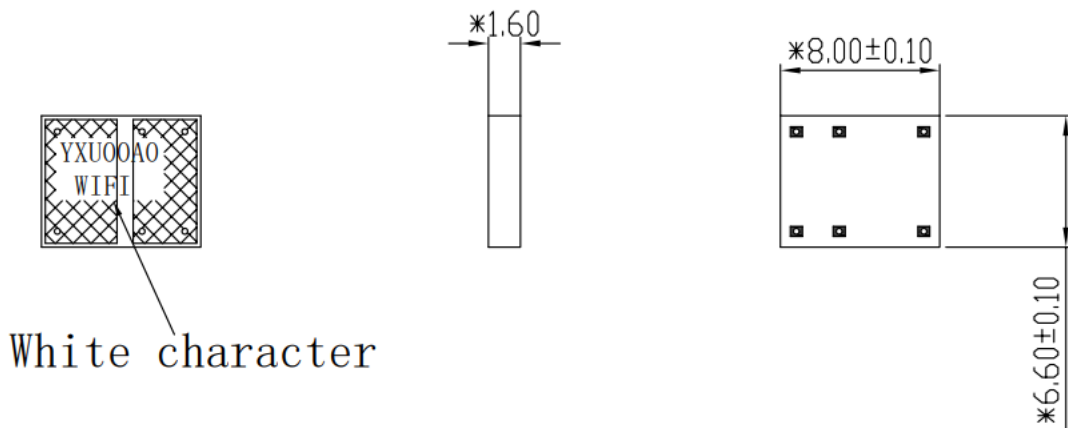
4.5.3. 6500 MHz



5 Product Size



ROHS



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