HM-63079
Antenna Specification V1.0

Author	
Reviewer	
Approver	

Manufacturer: Jiangmen Suntak Circuit Technology Co., Ltd.
Address of Manufacturer: NO.363 Lianhai Road, High-Tech Community,Jiangmen

Table of Content

1. Antenna Characteristic Specification

This specification describes the physical characteristics and electrical performance of the following 2.4 GHz Wi-Fi antennas.
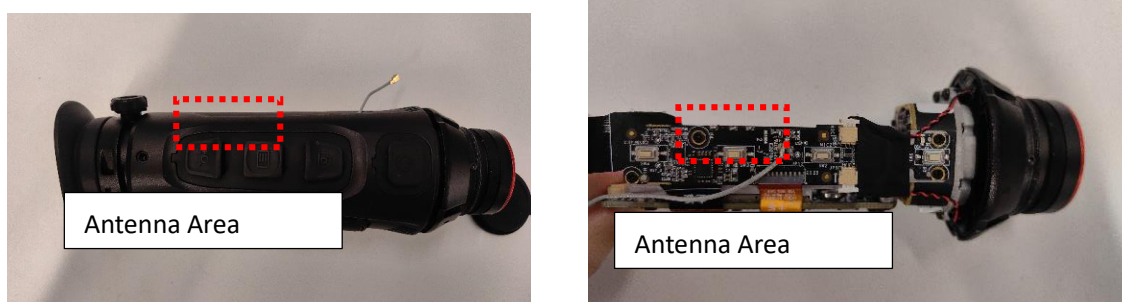

Figure 1.Antenna Actual Effect Picture

1.1 Antenna Structure

The antenna is mainly composed of SMT on the PCB.

1.2 Antenna Technical Parameters and Interface

Design Specifications	Typical	Units
Form	On-board PCB	\
Frequency	2400-2500	MHz
Gain	High channel：-2.12	dBi
	Medium channel：-0.89	dBi
	Low channel：0	dBi
Antenna Efficiency	29	%
VSWR	< 10	\
Polarization	Linear Polarization	\
Axial Ratio	\	\
Radiation pattern	Omnibearing	\
impedance	50	ohm
Power handling	33	dBm
Interface	\	\
Overall dimensions	15mm*5mm	\
Weight	\	\
Operation Temp.	-30-70	°C
Storing Temp.	-30-70	°C

2. Antenna Test Conditions

2.1 Test Equipment

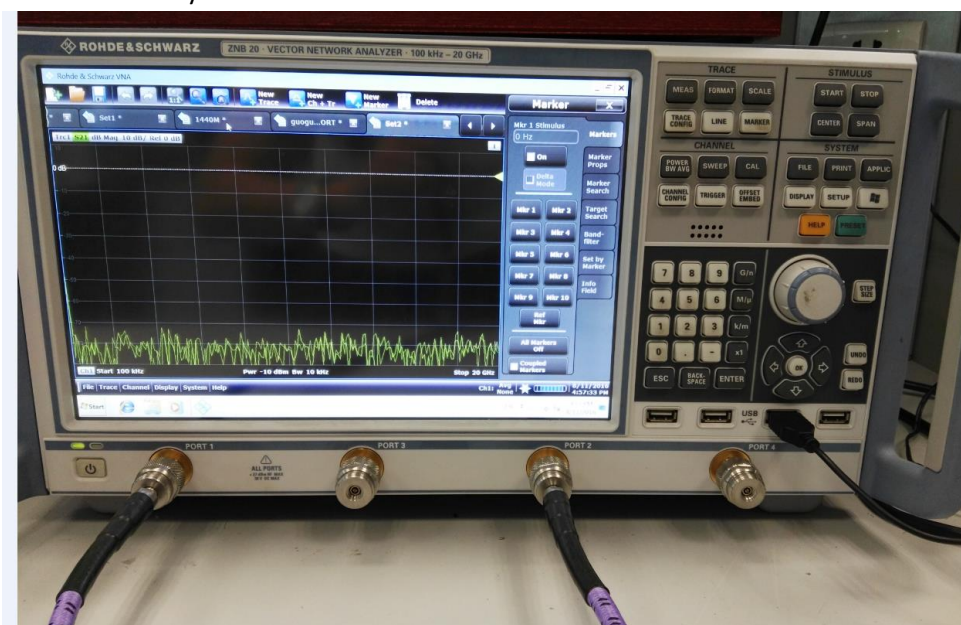Antenna Vector Network Analyzer ROHDE&SCHWARZ ZNB 20

Figure 2.Vector Network Analyzer

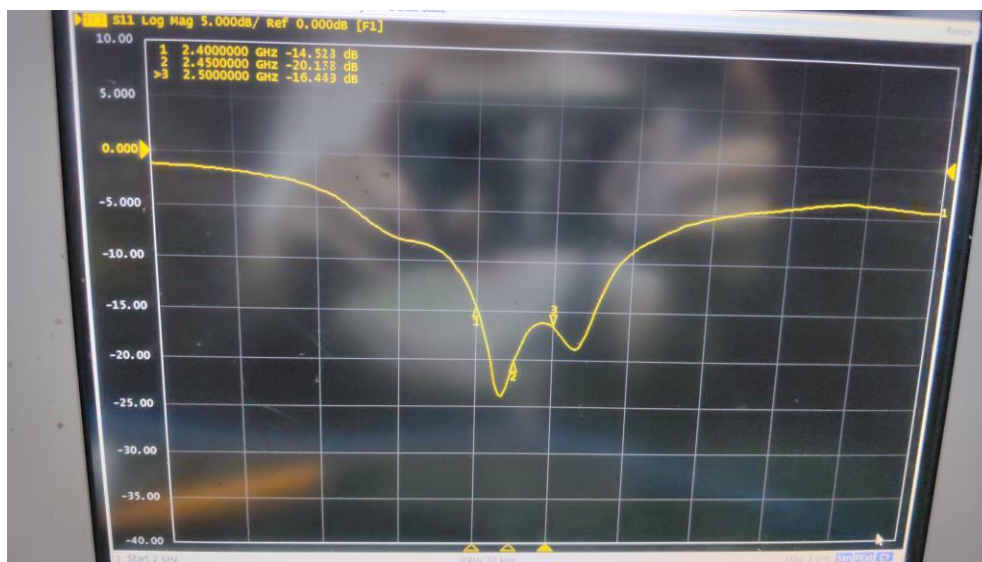## 2.2 Test Result

Return Loss (S11)

Figure 4.Return Loss

The yellow curve in the figure above shows that the antenna syntony is realized well, and the resistance condition matches well.
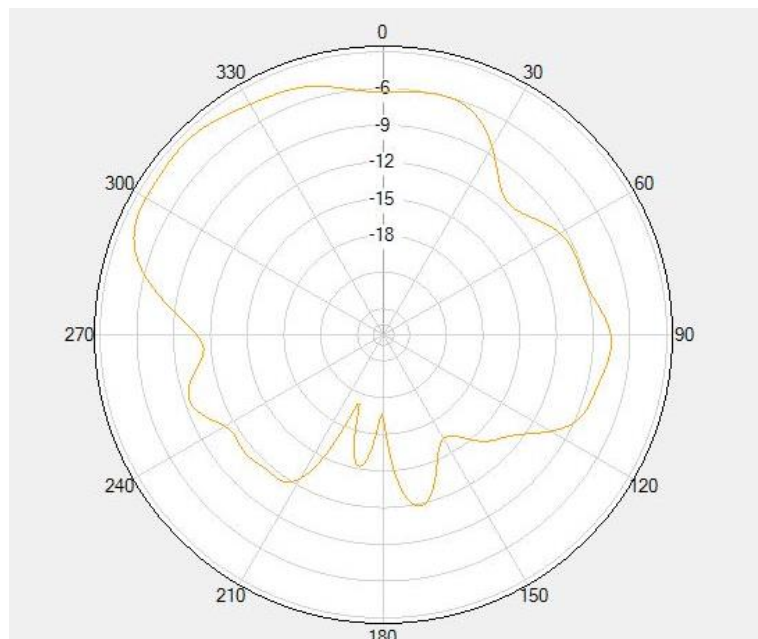
Antenna Efficiency

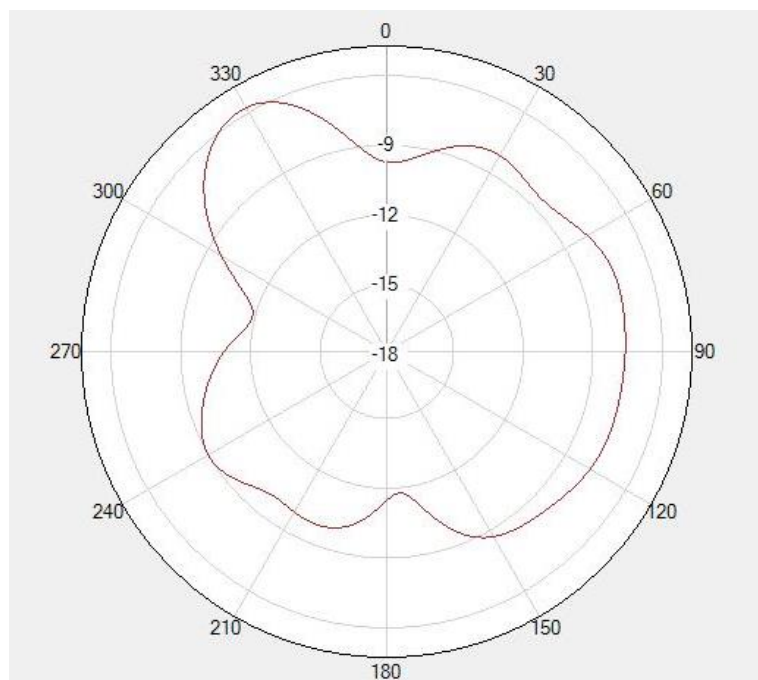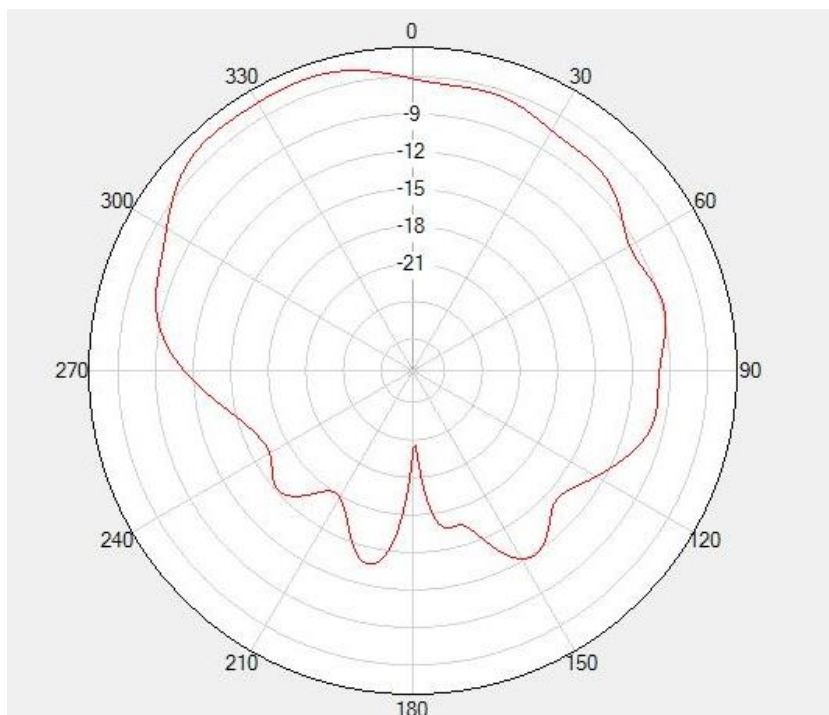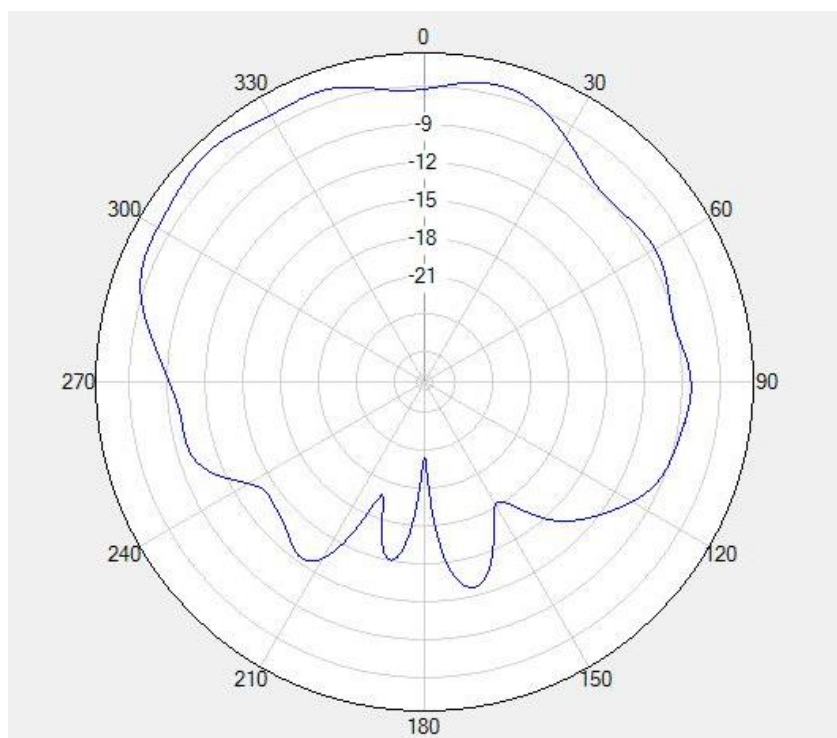| Frequency /MHz	Efficiency /%
2400	28.49
2410	30.66
2420	31.68
2430	32.44
2440	32.33
2450	30.51
2460	29.60
2470	28.34
2480	26.55
2490	24.70
2500	24.33

Antenna 2D Radiation Pattern

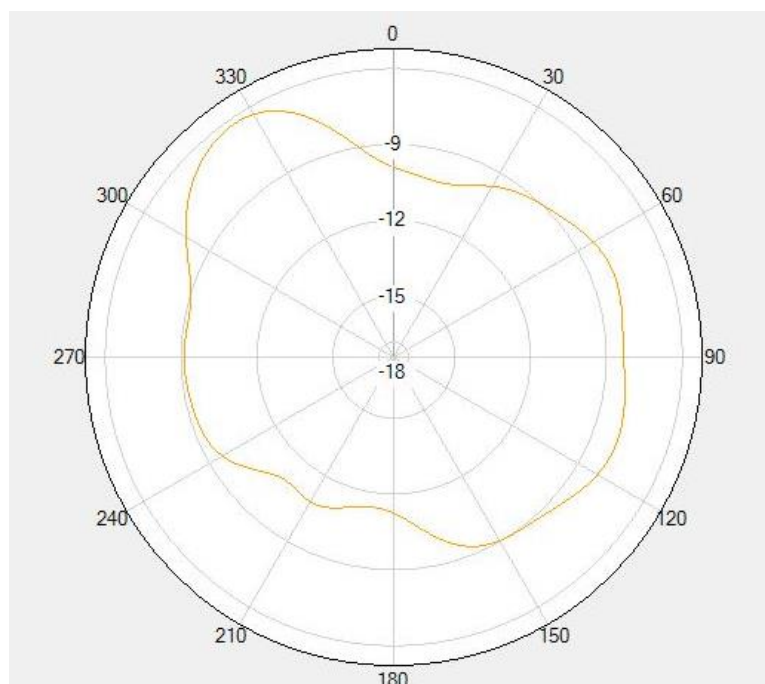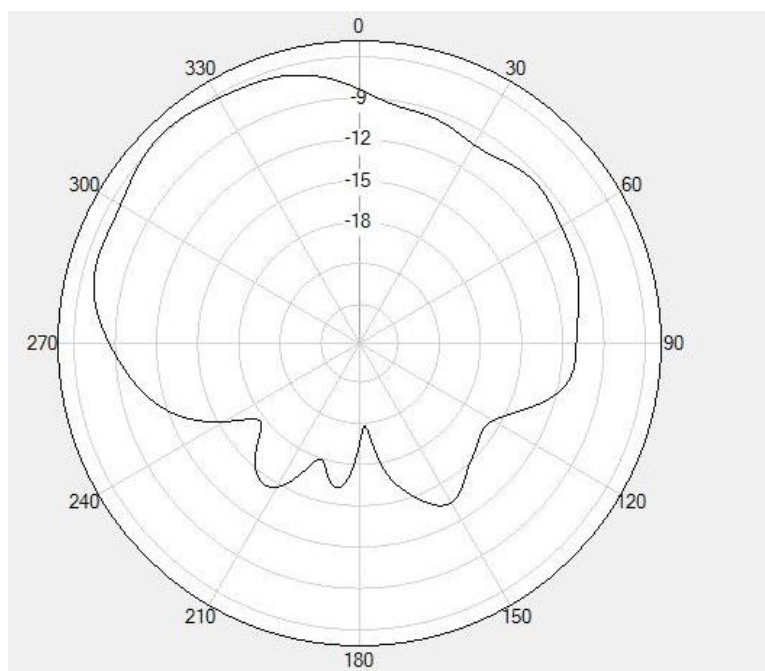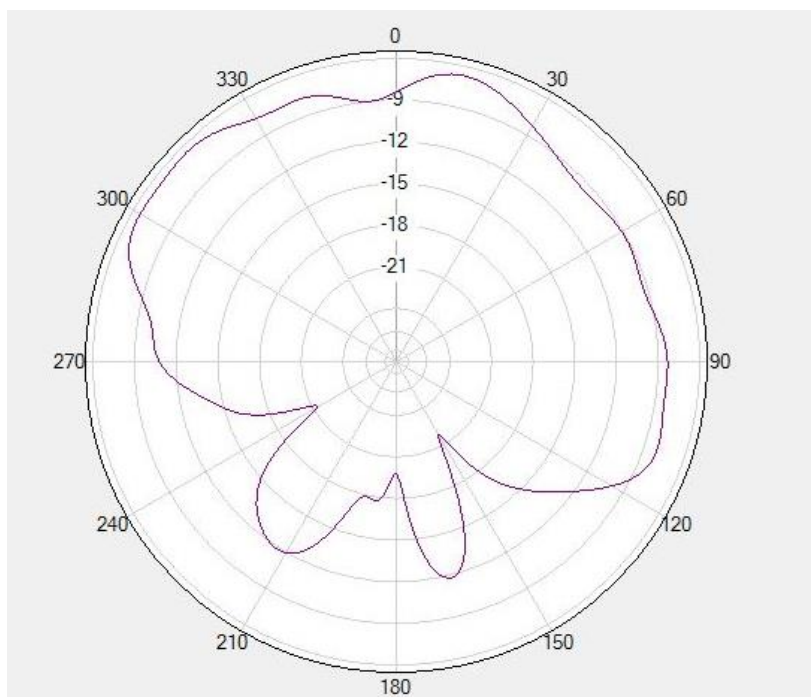2400MHz:
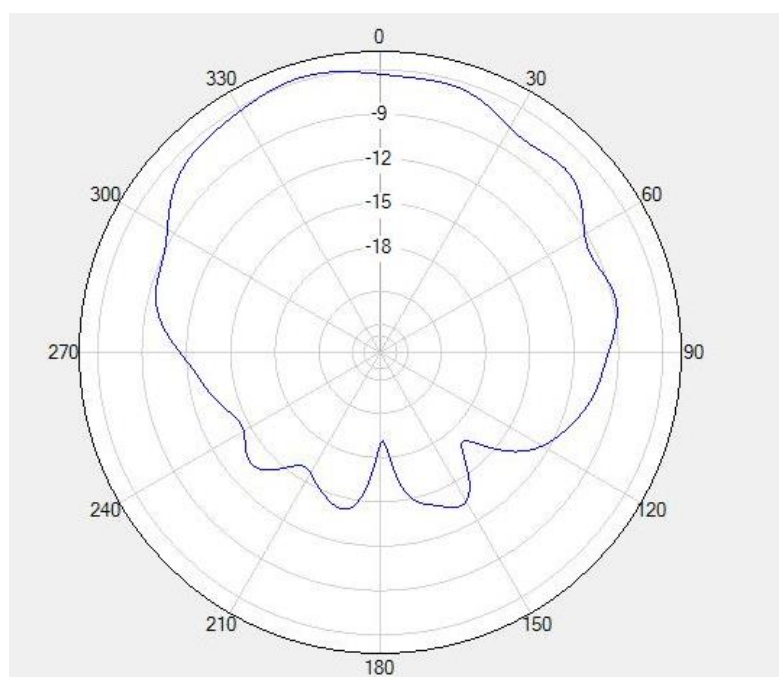
Phi=0 deg
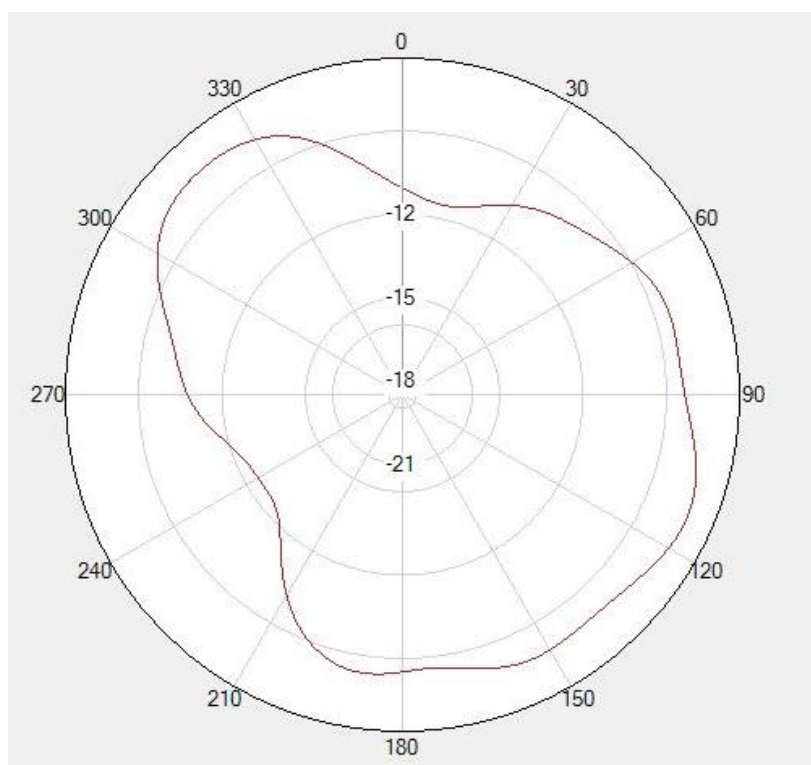
Phi=90 deg

Theta=90 deg

2450MHz:

Phi=0 deg

Phi=90 deg

Theta=90 deg

2500MHz:

Phi=0 deg

Phi=90 deg

Theta=90 deg

Revision History

Revision	Content	Date	Author
V1.0	First Edition	Oct. 16, 2023	Hua Lina

Revision History