HM-63117 REV1.0
Antenna Specification V1.0

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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	PCB SMT(ANT PCB03)	\
Frequency	2400-2500	MHz
Gain	High channel：-3.30	dBi
	Medium channel：-2.87	dBi
	Low channel：-4.18	dBi
Antenna Efficiency	16	%
VSWR	< 2	\
Polarization	Linear Polarization	\
Axial Ratio	\	\
Radiation pattern	Omnibearing	\
impedance	50	ohm
Power handling	33	dBm
Interface	\	\
Overall dimensions	18.1mm*4.4mm*3.6mm	\
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

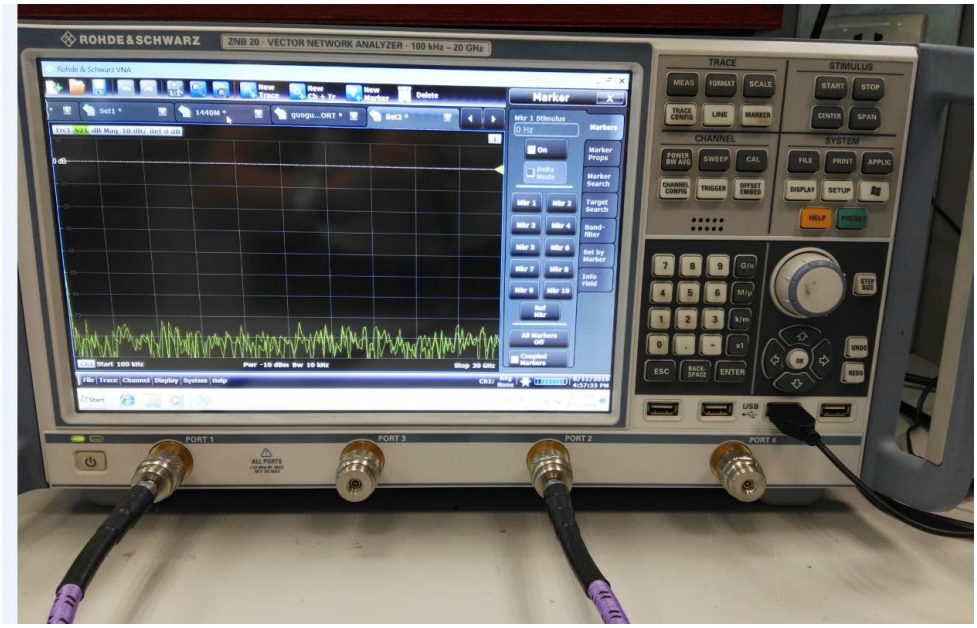


Figure 2.Vector Network Analyzer

2.2 Test Result

Return Loss (S11)

Figure 4.Return Loss

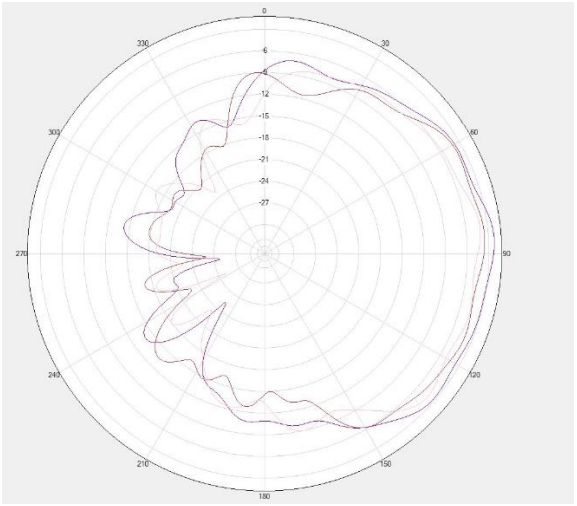
The yellow curve in the figure above shows that the antenna syntony is realized well, and the resistance condition matches well.

Antenna Efficiency

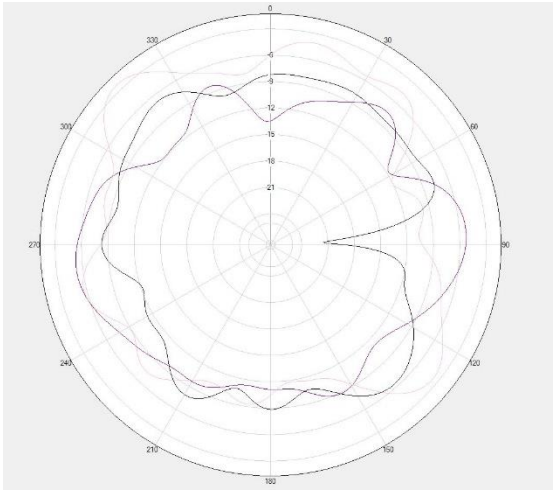
Frequency(MHz)	efficiency(%)
2400	14.6
2410	17.32
2420	16.62
2430	18.53
2440	19.87
2450	20.07
2460	18.86
2470	16.8
2480	14.66
2490	12.36
2500	10.34

Antenna 2D Radiation Pattern

2400MHz-2450MHz-2500MHz



Phi=0 deg



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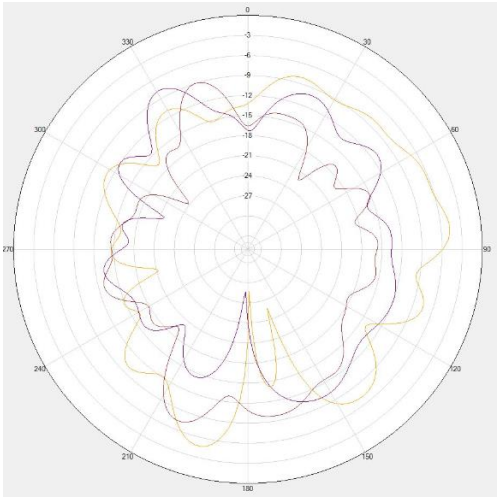

Theta=90 deg

Revision History

Revision	Content	Date	Author
V1.0	First Edition	Apr. 24, 2024	