

# Product Specification

Design and manufacture of  
mobile communication  
terminal antenna products

**PRODUCT NAME:** OWLNV L3 2.4G WIFI ANT

**Part No:** W3106A-F8C0B-070-A

Shenzhen one plus one wireless communication technology Co., Ltd

Proposed	<b>Seanzhang</b>	Product Specification	Edition	A
Document	R&D Department		Date	21.10.19

## 1. Purpose

The specifications and test methods of mobile communication terminal antenna products produced by one plus one shall be standardized to avoid errors caused by different test conditions and methods.

## 2. Overview of product categories and models

### 2.1 Product Model Overview

This report mainly summarizes the electrical results of the antenna designed by OWLNV L3 project. The designed frequency band of this antenna is 2.4G WIFI band.

## 3. Description of basic parameters and experimental equipment

### 3.1 Basic parameters

Product electrical performance index	
Operating frequency range	2400-2480MHz
Standing wave ratio	2400-2480 MHz: < 1.5
Antenna gain	2400-2480 MHz: 1.5dBi ± 0.5dBi
Radiation efficiency	2400-2480 MHz: > 30%
Impedance	50 ohm
Product Material Description	
FPC	Copper+PI
Coaxial line	Braided wire+terminal
Product environment description	
Working temperature	- 30°C ~ + 85 °C
Storage temperature	- 30°C ~ + 85 °C

### 3.2 Description of experimental equipment

List	Testing project	Equipment
1. S Parameters	1. Return loss 2. VSWR at	Network analyzer: Agilent 8753ES
2. Coupling power test	1. Transmission power 2. Receiving sensitivity	Comprehensive tester: Agilent 8960 E5515C
3. Radiation pattern and gain	1. Radiation pattern 2. Antenna gain	1. Darkroom: 7x4x3 m (3D) 2. Network analyzer : Agilent 8753ES

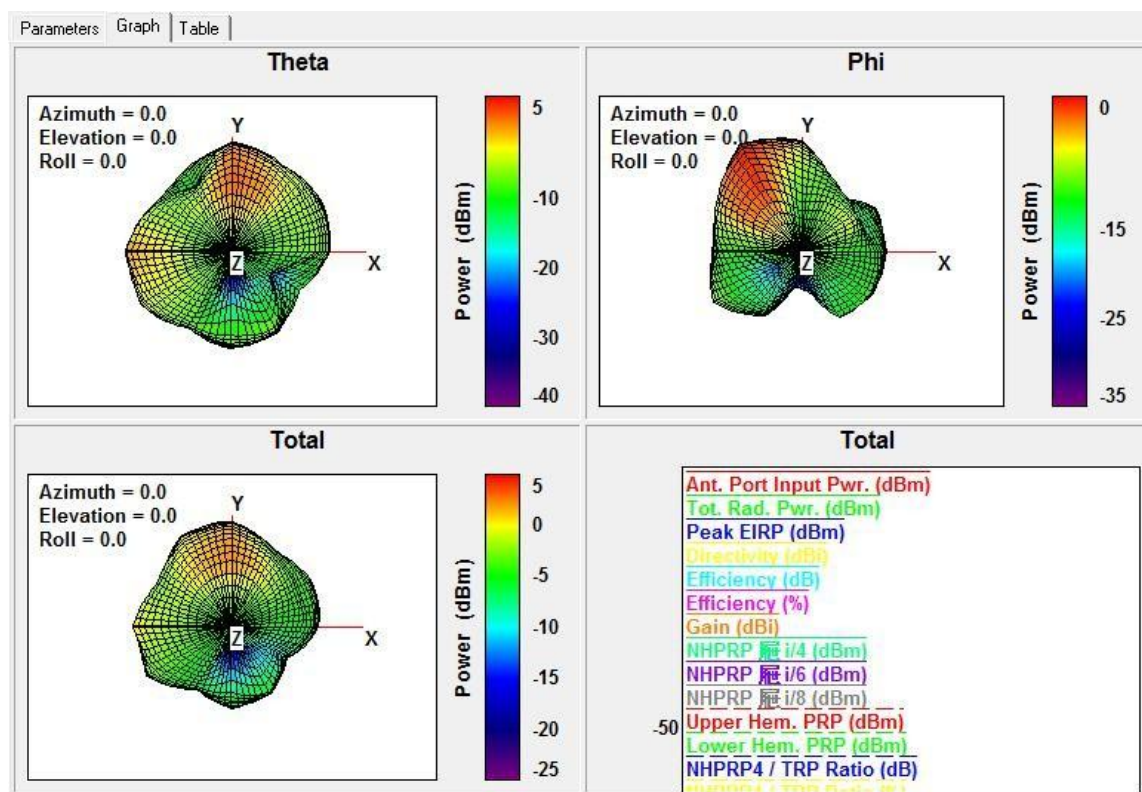
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## 4. Antenna test data

### 4.1 Wifi:2.4G Efficiency/Gain

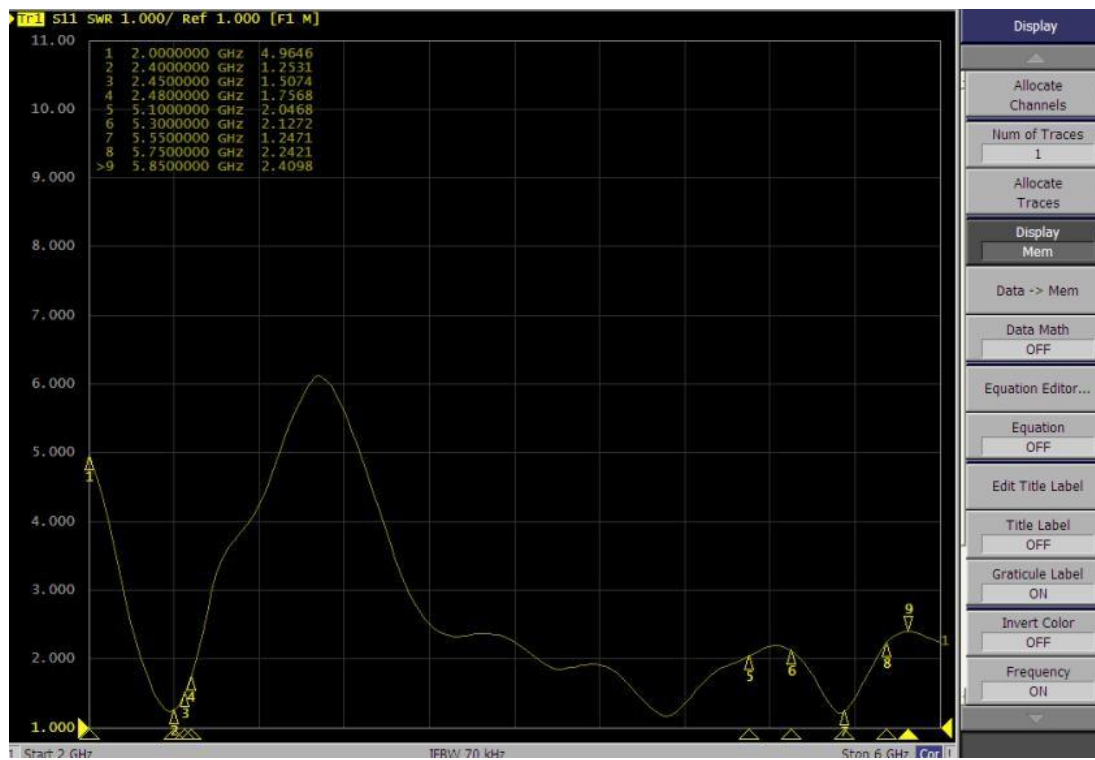
Fre.(Mhz)	Efficiency(%)	Gain(dBi)
2400	52.25	1.09
2410	51.41	1.08
2420	53.25	1.30
2430	55.47	1.28
2440	55.63	1.41
2450	58.47	1.50
2460	54.63	1.30
2470	53.25	1.25
2480	53.67	1.14

### 5.1 2.4G Apple Chart



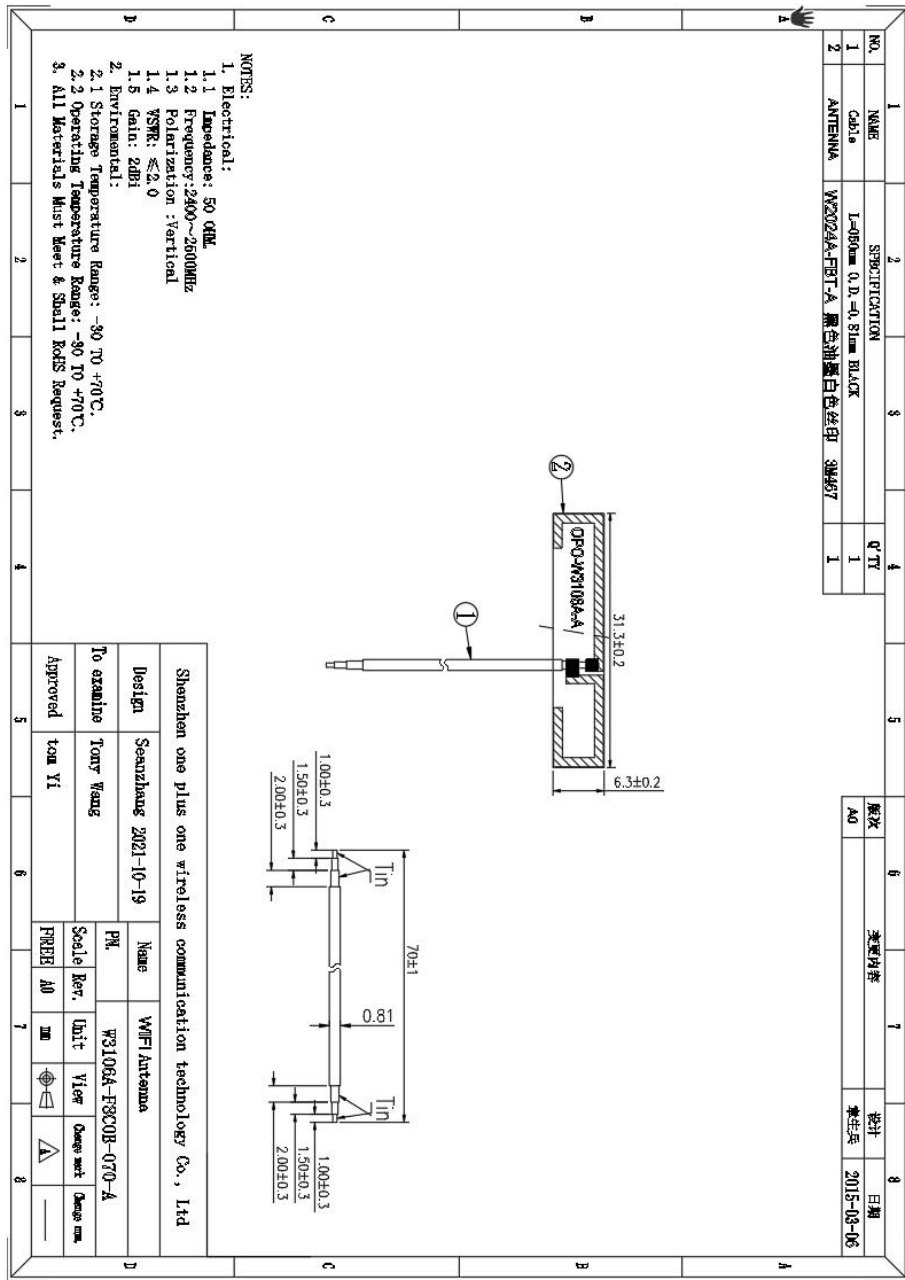
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## 6.1 VSWR



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# 7.1 Product 2D structure diagram and remarks



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