

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	Seanzhang	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

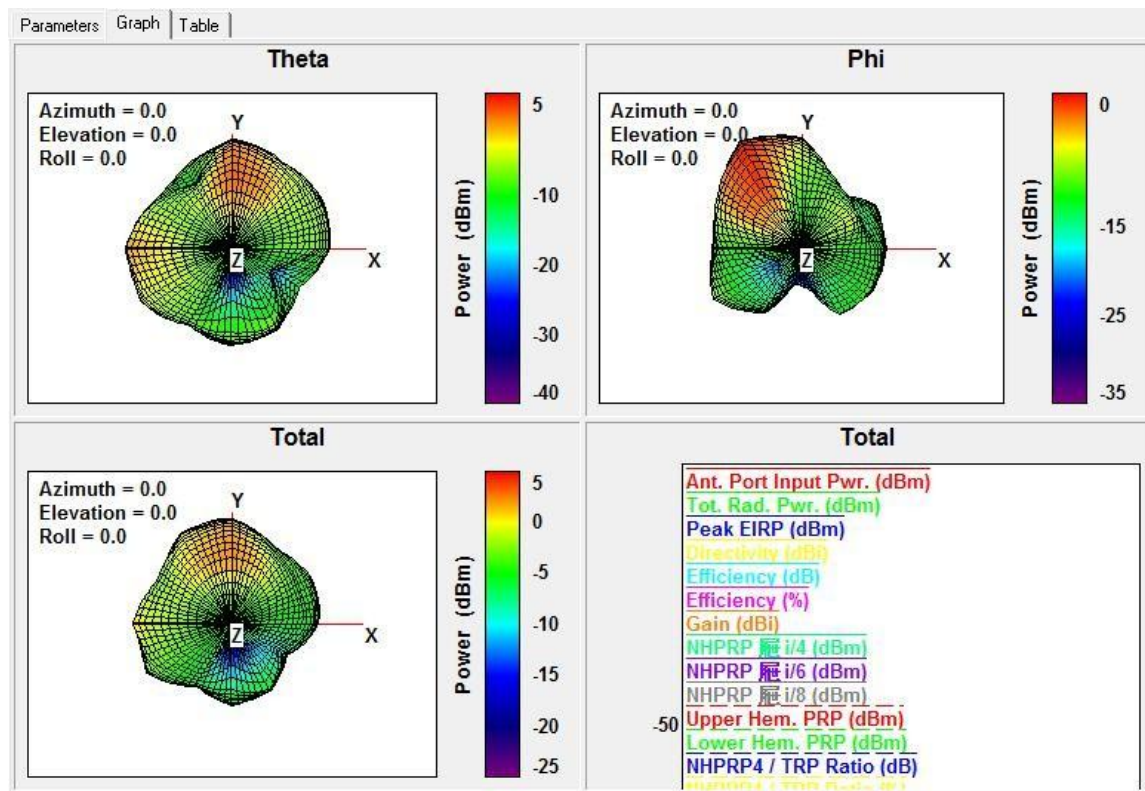
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4. Antenna test data

4.1 Wifi:2.4G Efficiency/Gain

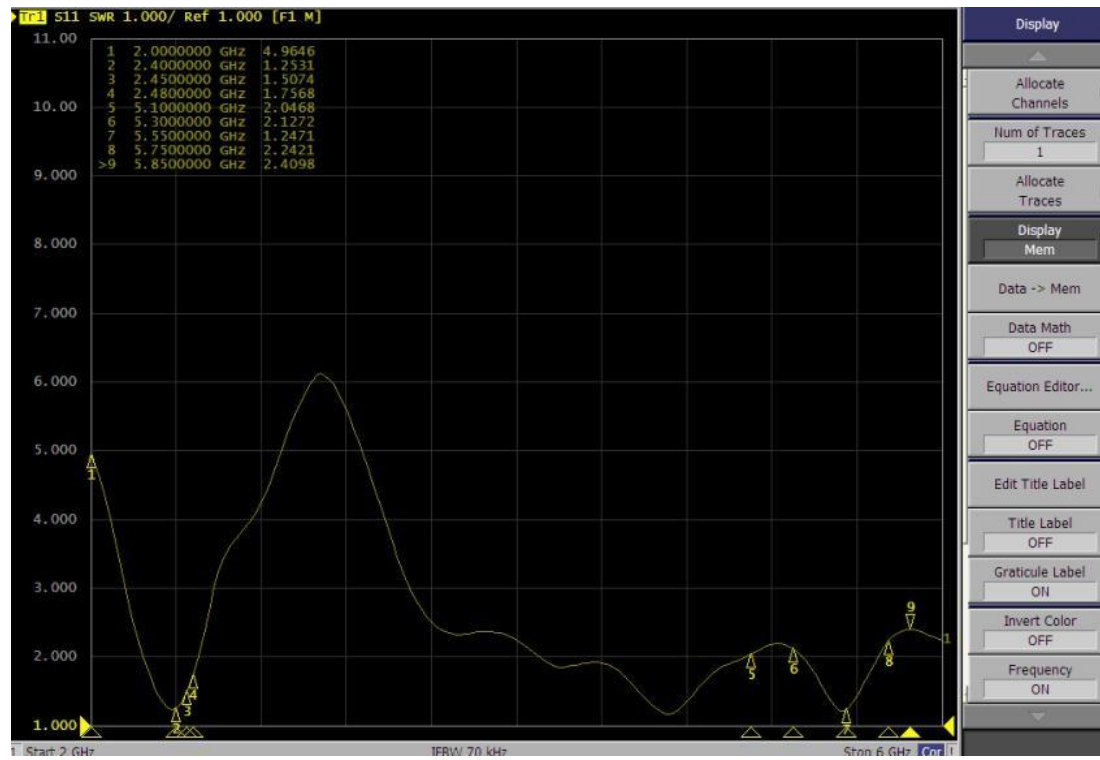
Fre.(Mhz)	Efficiency(%)	Gain(dBi)
2400	52.25	1.09
2410	51.41	1.08
2420	53.25	1.30
2430	55.47	1.28
2440	55.63	1.41
2450	58.47	1.50
2460	54.63	1.30
2470	53.25	1.25
2480	53.67	1.14

5.1 2.4G Apple Chart



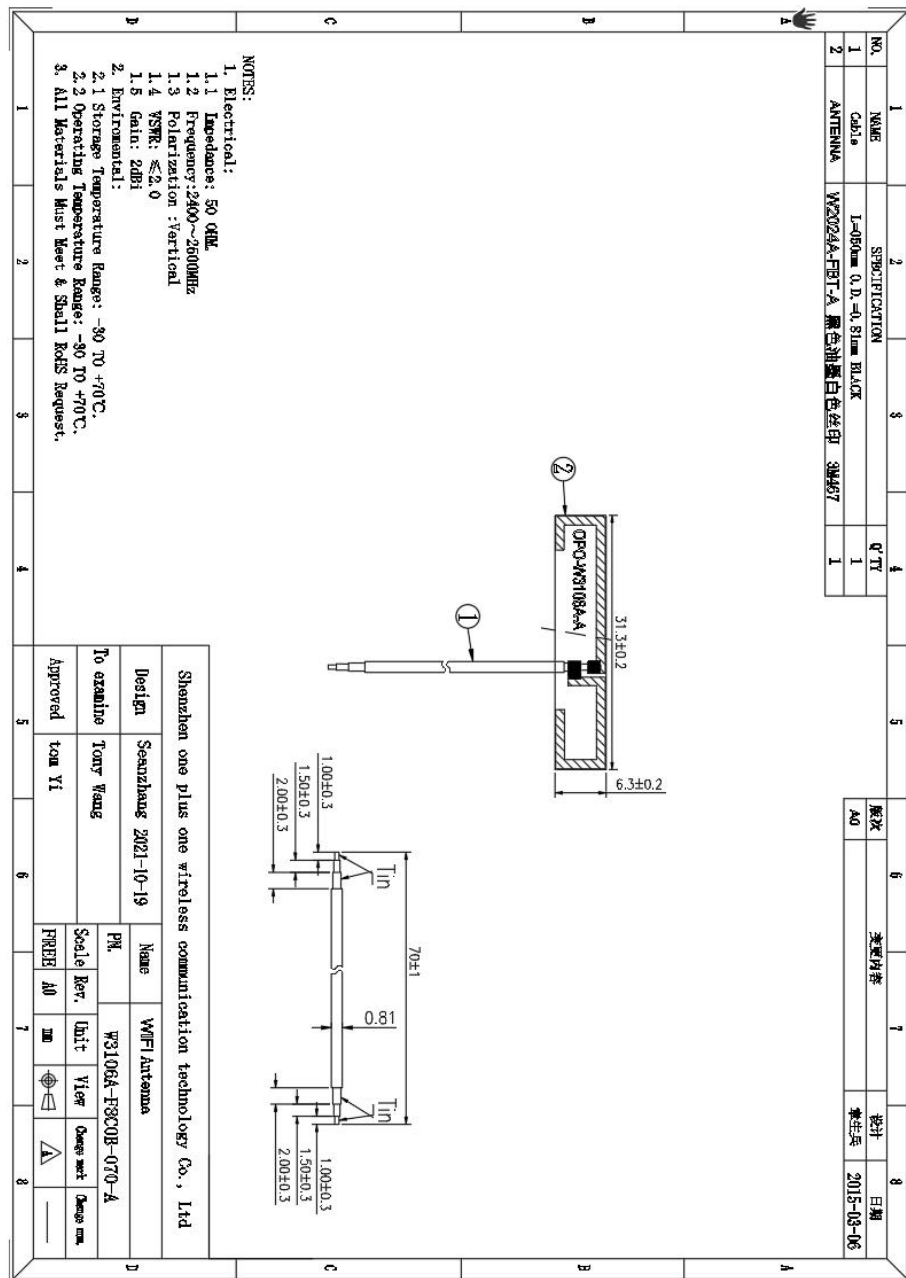
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6.1 VSWR



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7.1 Product 2D structure diagram and remarks



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