

SHENZHEN **TLT** COMMUNICATION CO., LTD.HV3126C antenna
Product Specification

Customer	Moxin	Frequency range	WIFI 2.40G
Mobile phone type	HV3126C	Version	Latest version
Project code	TLT4904	Approve	
RF designer	Mao Hangzhou	RD designer	Liang Jingshi
Date	2022-2-11	Date	2022-2-11
Customer Information:			

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1. Antenna Parameters

This report mainly provides test conditions and results for various electrical and structural properties in mobile phone testing.

Antenna model:	HV3126C
Antenna gain:	1.2dBi

1.1 Electrical parameters

1.1.1 Electrical performance evaluation

The frequency band range of the antenna is 2.40G~5.0G. The table below is the basic parameters of the electrical performance of the antenna.

WIFI Frequency Range			
Frequency Range	Frequency (MHz)	VSWR	Gain (dBi)
	TX		Free Space
WIFI	2.40G~5.0G	≤3	≥0dBi±0.5dBi

1.1.2 Matching circuit diagram

Use the original resistance matching circuit diagram on the PCB

1.2 Structural parameters

Structural drawings are attached as follows

1.2.1 Antenna Components

The antenna coaxial line is connected to the FPC composition

1.2.2 Performance test requirements

Test items	Describe	Acceptance criteries
1.Low temperature test	Temperature:-20 ℃ Time:24 hours	1. No visible damage 2. Electrical performance up to standard
2.High temperature test	Temperature:80℃ Time: 24 hours	1. No visible damage 2. Electrical performance up to standard

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3. Salt spray test	5±0.1% salt spray PH value: 6.5-7.2 Temperature: 35±1℃ Time: 24 hours	1. No color change 2. No obvious cracks in appearance
4. Environmental suitability test	Total value of Pb, Hg, Cr+6, Cd in packing materials is smaller than 50PPM Pb, Hg, Cr+6, PBBs, PBDEs in components are smaller than 500PPM, Cd is smaller than 50PPM	

2. Test

The antenna is installed in the equipment provided by the customer for testing. Figure 3 depicts the electrical performance of the antenna as installed in the device test.

2.1 VSWR test

2.1.1 Test the connection

Equipment connection sequence for testing VSWR: Agilent E5062A network analyzer → test cable → customer-provided prototype

2.1.2 VSWR

The table below describes the VSWR values of the antenna at both ends of the frequency band, referring to the graphs related to return loss and VSWR.

	GPS	WIFI-2.4G		WIFI-5.0G	
Frequency (MHz)	1.575G	2.4G	2.48G	5.15G	5.85G
VSWR		1.78	1.52		
Return Loss		-11.2	-13.3		

2.2 Gain and Power Test

2.2.1 Test Environment

Tianlutong microwave anechoic chamber: The frequency range of the test is from 800MHz to 6GHz. In the 50cm diameter spherical area, the anechoic chamber reflects less than -50dB from 800MHz to 6GHz.

2.2.2 Test equipment

Agilent 8960 (5515C), network analyzer (E5062A) communication test device, dipole antenna, France Satimo antenna test system, printer, etc.

3. Summary

The antenna is designed according to the mobile phone samples provided by the customer. The electrical parameters and performance of the antenna are up to the standard. We believe that you will be satisfied.

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3. WIFI&GPS graphics and test data

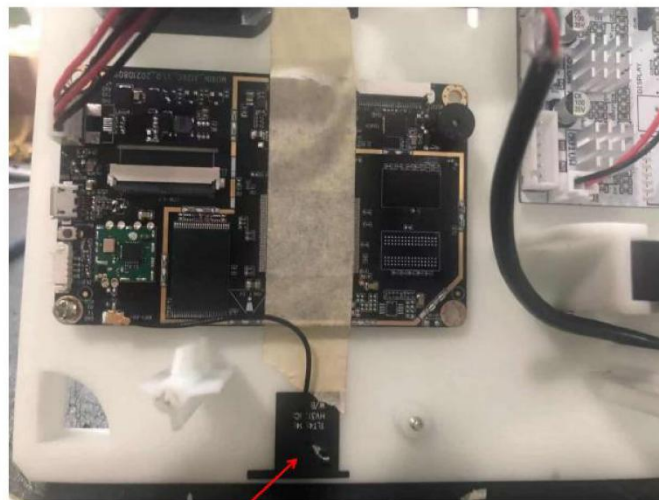
3.1 WIFI field test: test environment: open environment, 15 meters away from our router, the test is as follows:

2.4G-wifi display -41dBm; full signal

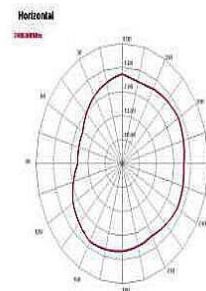
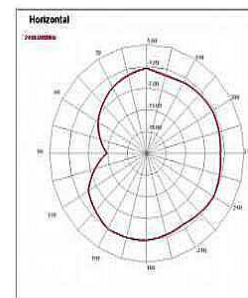
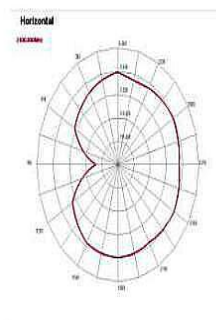
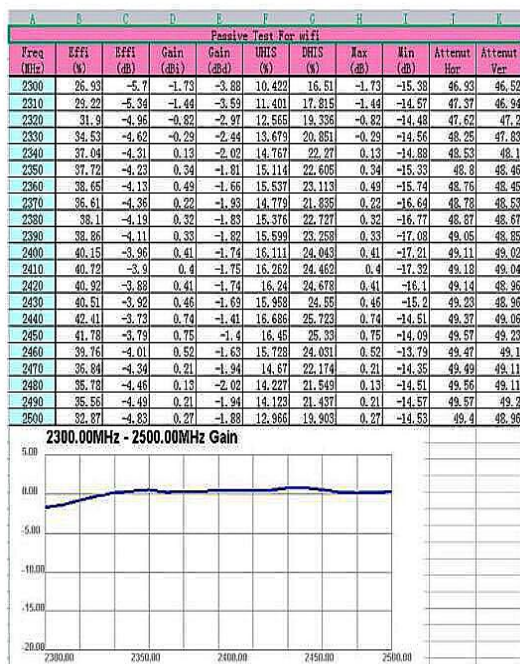
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4. Antenna assembly and processing drawings



MAIN-WIFI antenna



Antenna 2D file:

