

manufacturer: Shenzhen Xinlingke Technology Co., LTD

Manufacturer's address: 5th Floor, Office Building of Shenzhen Noodle Company, No. 9106, Beihuan Avenue, North District, Nanshan Science and Technology Park, Shenzhen

item number: 208100020/208100021

Model: XLK-A301-WIFI-BT-V2
XLK-A301-WIFI-V2

specification: 10.50*55.87±0.2/13.09*59.32±0.2

date: 2025. 04. 07

1. Overview

This report mainly describes the antenna performance that Xinlingke has debugged for the machines of Yingmu Technology. The frequency range used by the A301 project of Yingmu Technology is 2.4/5.8G/6GWIFI. The antenna of this machine is of PIFA type and is located inside the machine.

2. Detailed introduction

2.1 Matching Circuit Our company has not made any changes to the matching

3. Debugging Settings

Transmission Power (TX Power) and reception Sensitivity (RX Sensitivity)

The transmission power and reception sensitivity are 3D results measured in a microwave anechoic chamber (6m*3m*3m) using the CMW500

3.1 TRP, TIS

2. 4G WIFI 802. 11b (11M)			
信道	1	7	13
TRP	12. 6	12. 9	12. 7
TIS			-79. 4

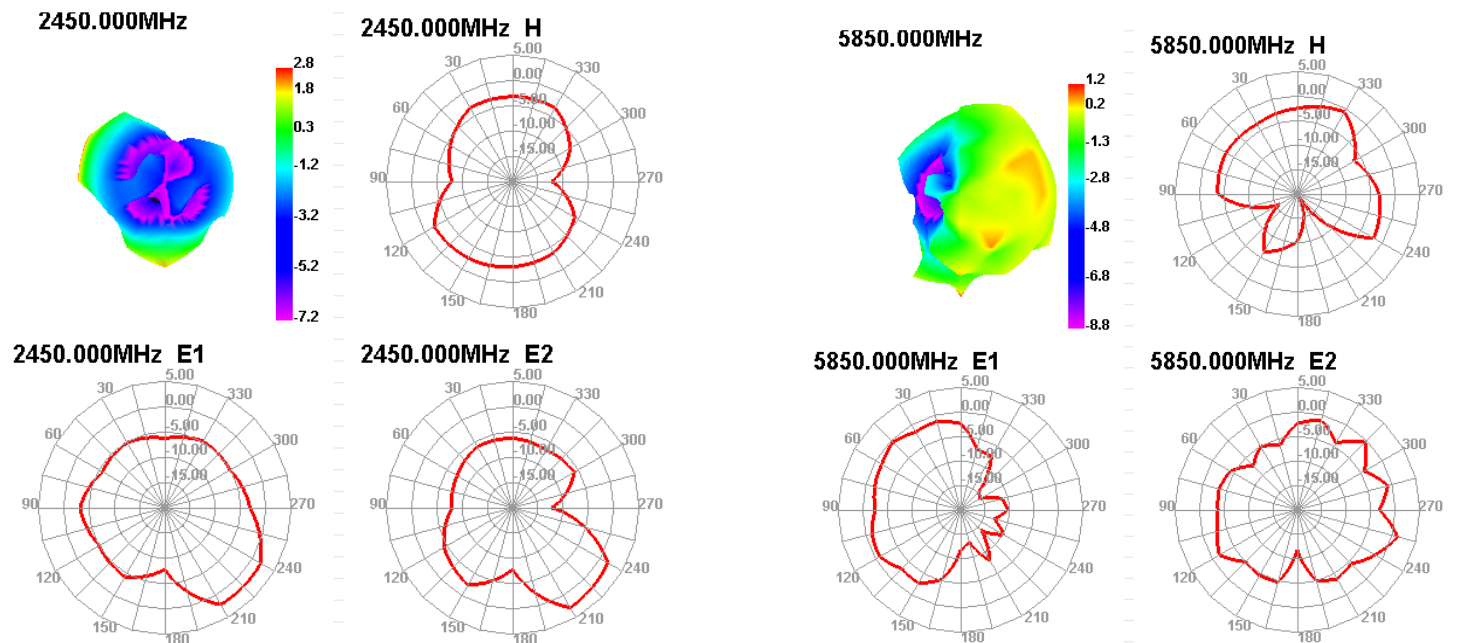
5G WIFI 802. 11a (54M)			
信道	36	149	165
TRP	11. 2	12. 7	12. 4
TIS			-70. 6

3.2 Gain, square plot

Antenna 1

2.4G/BT maximum gain : 2.77DBI

5G maximum gain: 1.15DBI



WiFi/BT

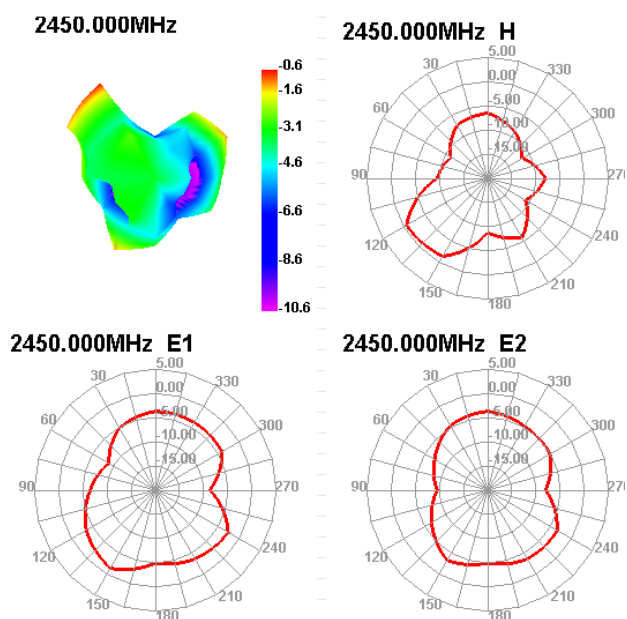
5G

Freq (MHz)	Gain (dBi)
2400	2.35
2410	2.58
2420	2.68
2430	2.47
2440	2.07
2450	2.77
2460	2.43
2470	1.77
2480	1.35
2490	0.86
2500	0.37

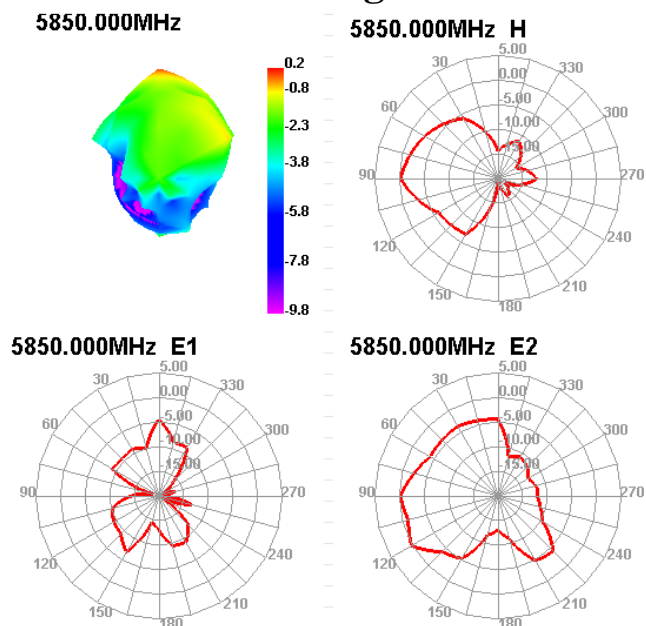
Freq (MHz)	Gain (dBi)
5150	0.28
5200	1.15
5250	-0.6
5300	-1.17
5350	1.15
5400	0.34
5450	-0.27
5500	0.2
5550	-0.7
5600	-0.26
5650	0.28
5700	1.15
5750	-0.64
5800	-0.19
5850	1.15

Antenna 2:

2.4G maximum gain: -0.63DBI



5G maximum gain: 0.2DBI



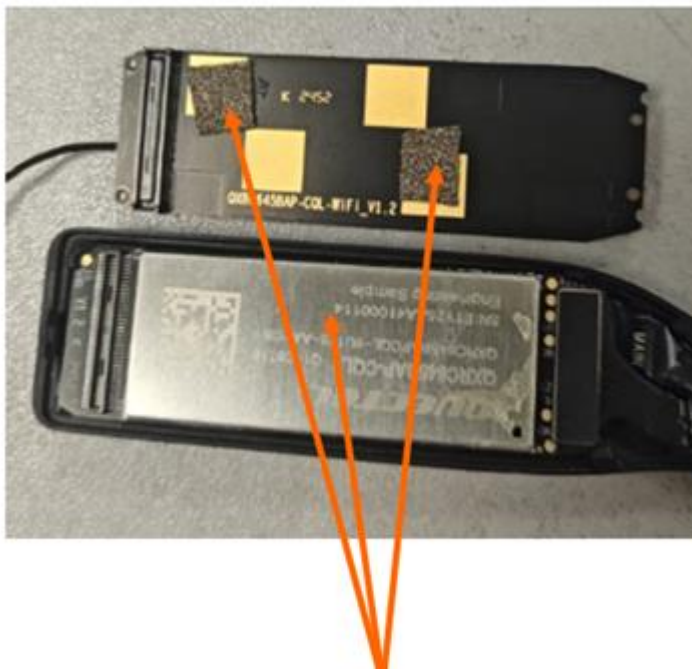
2.4G

Freq (MHz)	Gain (dBi)
2400	-0.8
2410	-0.69
2420	-1.11
2430	-1.56
2440	-0.78
2450	-0.63
2460	-1.56
2470	-2.84
2480	-1.91
2490	-2.3
2500	-2.99

5G

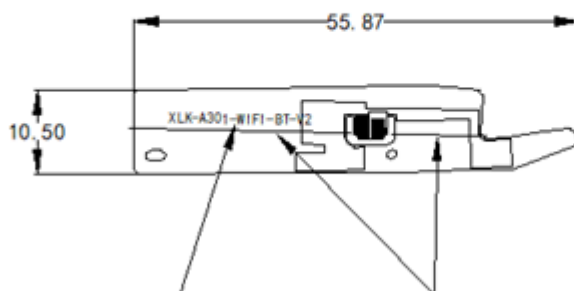
Freq (MHz)	Gain (dBi)
5150	-0.76
5200	0.20
5250	-0.56
5300	-1.38
5350	0.20
5400	-0.81
5450	-0.99
5500	-0.76
5550	-2.01
5600	-1.93
5650	0.20
5700	-0.46
5750	-0.47
5800	-0.25
5850	0.20

4. Environmental treatment



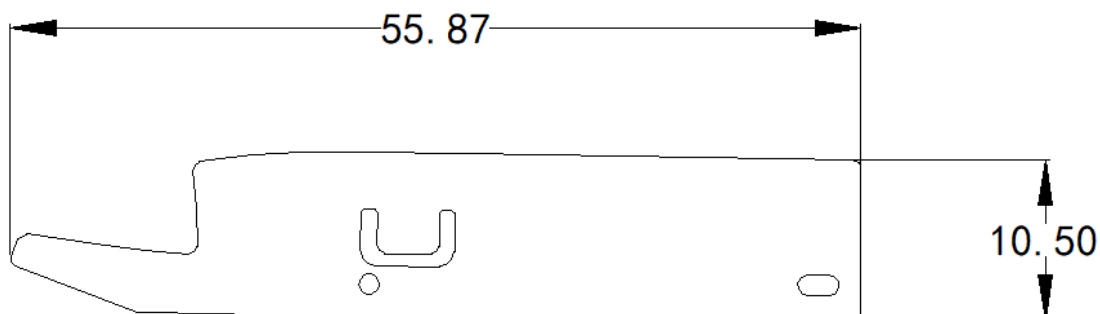
The module is attached to the conductive cloth and the screen Cover grounding

5. antenna configuration



Silk-screened white characters

The release paper breaks the thread



XLK-A301-WIFI-BT-V2 Antenna component number :208100020

Technical requirements

1.Material :FPC(black oil, one pair of semi-electrolytic pin base material), T0.15m; Reverse adhesive type: 39471(Viscous Heat Shock Test)

2. The dimensions marked with "" are key controlled dimensions. If the tolerance is not specified, it shall be controlled in accordance with the free public installation in the national frame: not specified

The size is subject to the film inspection (the electrical performance fee test is okay):

3. Please apply the plating treatment. There should be no disconnection or detachment after plating, poor power finding, or circuit parts

Negative phenomena such as disconnection;

4. The ink on the FPC surface should be uniform and free from contaminants, scratches, black spots, eyes, and poor coating

Such phenomena:

5. The product complies with the ROHS standard.

Shenzhen Xinlingke Technology Co., LTD

Project Name :A301

Product Name: WIFI/BT Antenna

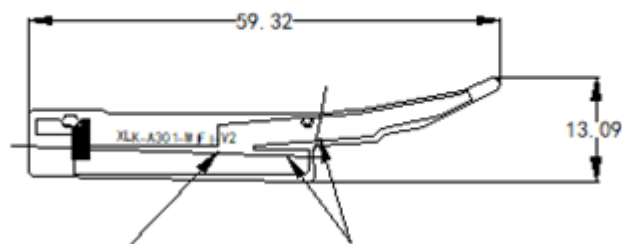
Material :FPC+ coaxial cable

Unit :mm

Proportion :FIT

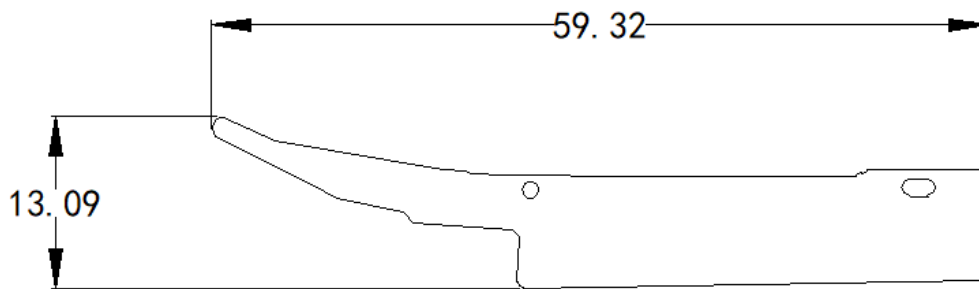
		⌀	0.03
		○	0.03
		⊗	±0.02
		⊥	0.02
		▱	0.05

change camera:



Silk-screened white characters

The release paper breaks the thread



XLK-A301-WIFI-V2 Antenna component number :208100021

Technical requirements

1. **Material :C(Black oil, one and a half pairs of electric fresh sales equipment), TCQ.15mm; Reverse kidney gum type: 319471 Adhesive cost Overheating Impact Safety face**
2. **The dimensions marked with an asterisk (*) are key controlled dimensions. For public transportation, please refer to the installation and pipe support of the Zhongqu field in the planting area: not noted**
3. **Please apply nickel plating treatment. There should be no cracking or peeling after nickel plating, poor conductivity, or electrical connection parts**
The dimensions shall be subject to the inspection of the forest film (electrical performance fee test C).
Bad phenomena of interrupted brushing:
4. **The ink on the FPC surface must be uniform, free from contaminants, vibration damage, black spots, peeling, and poor nickel plating**
"Learning phenomenon"
5. **The product complies with the ROHS standard**

Shenzhen Xinlingke Technology Co., LTD

Project Name :A301

Product Name: WIFI Antenna

Material :FPC+ coaxial cable

Unit :mm

Proportion :FIT

