

# WiFi Antenna Test Report



<b>Manufacturer information</b>	Shenzhen Feixun Lianke Electronics Co., Ltd
<b>Project</b>	C688 2.4G antenna
<b>Antenna type</b>	FPC antenna
<b>Product Description</b>	The FPC board is made of FXLK-FP3509B-A first generation terminals, black, with a wire diameter of 1.13 and a total length of 90mm. The other end is soldered in a ratio of 1:1.5:2 with the terminal facing downwards
<b>Product No</b>	FXLK-FP3509B-IX1-090-2.4G
<b>Antenna frequency band</b>	2400MHz-2500MHz

August 2, 2024

## ***Purpose***

**This report is to measure the performance of antenna for All test date are showed as below.**

## ***Content***

### **1: Product Overview**

#### **1.1 Antenna schematic diagram**

#### **1.2 Dimensional drawing of antenna shell material**

### **2: Test Result**

#### **2.1 RETRUN LOSS**

#### **2.2 *Smith Chart***

#### **2.3 GAIN & Efficiency**

#### **2.4 *2D&3D Directional pattern***

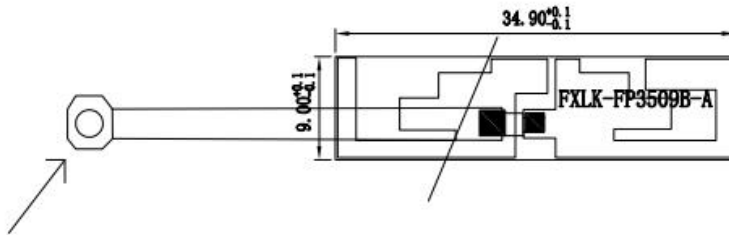
# 1. Product Overview

## 1.1 Antenna schematic diagram



# 1. Product Overview

## 1.2 Dimensional drawing of antenna shell material



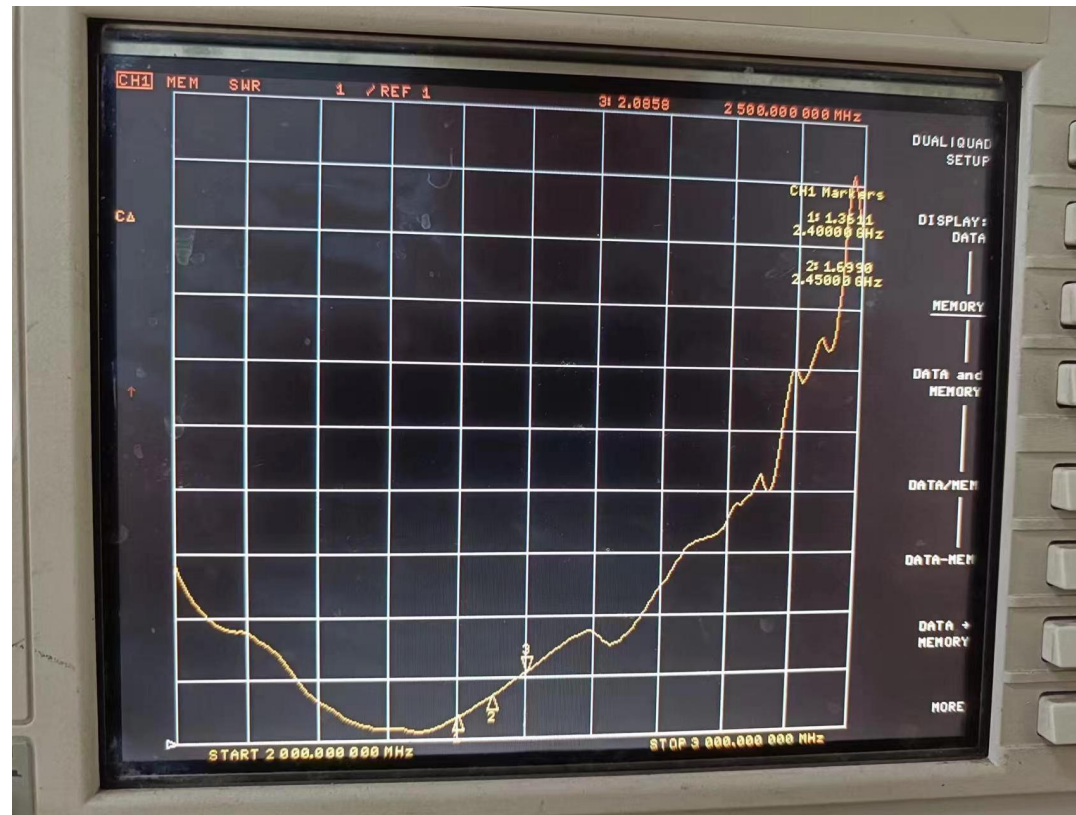
Single sided half to half glued  
electrolytic copper  
Front silk screen black oil,  
bright black characters  
antioxidant  
Reverse side 3M9471

First generation terminals

— Hand tearing position

## 2. Test Result

### 2.1 2.4G antenna VSWR

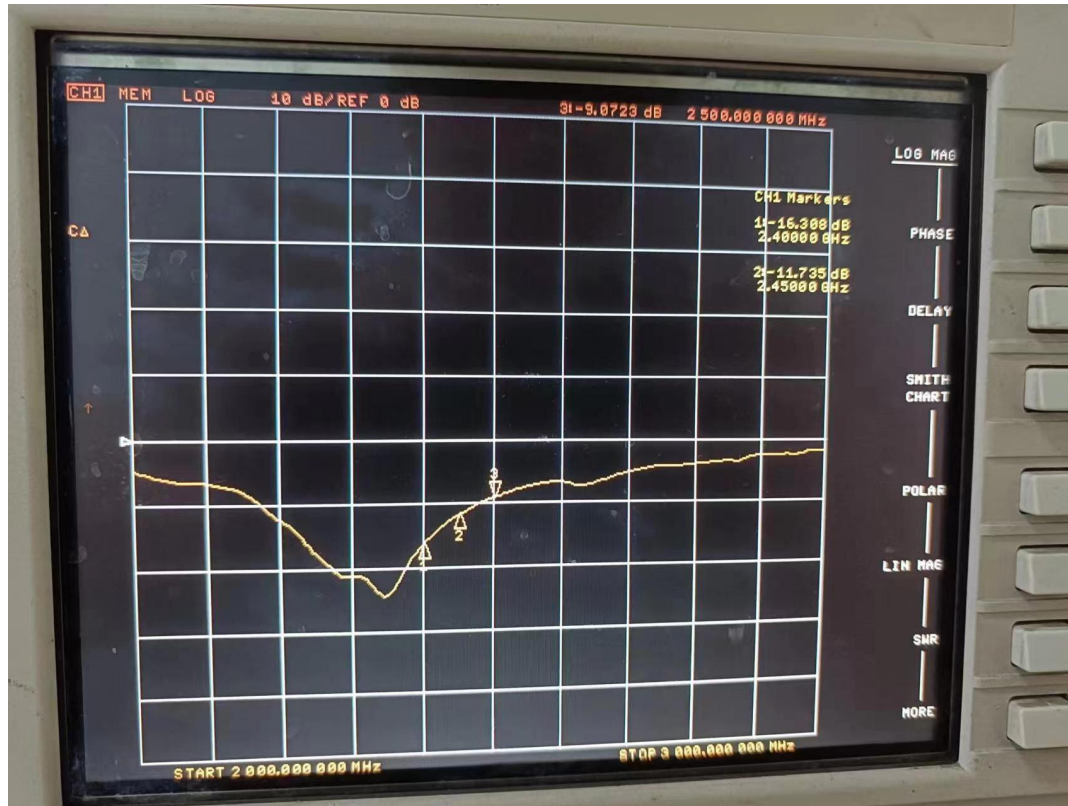


Frequency (MHz)	2400	2450	2500
VSWR	1.36	1.69	2.00



## 2. Test Result

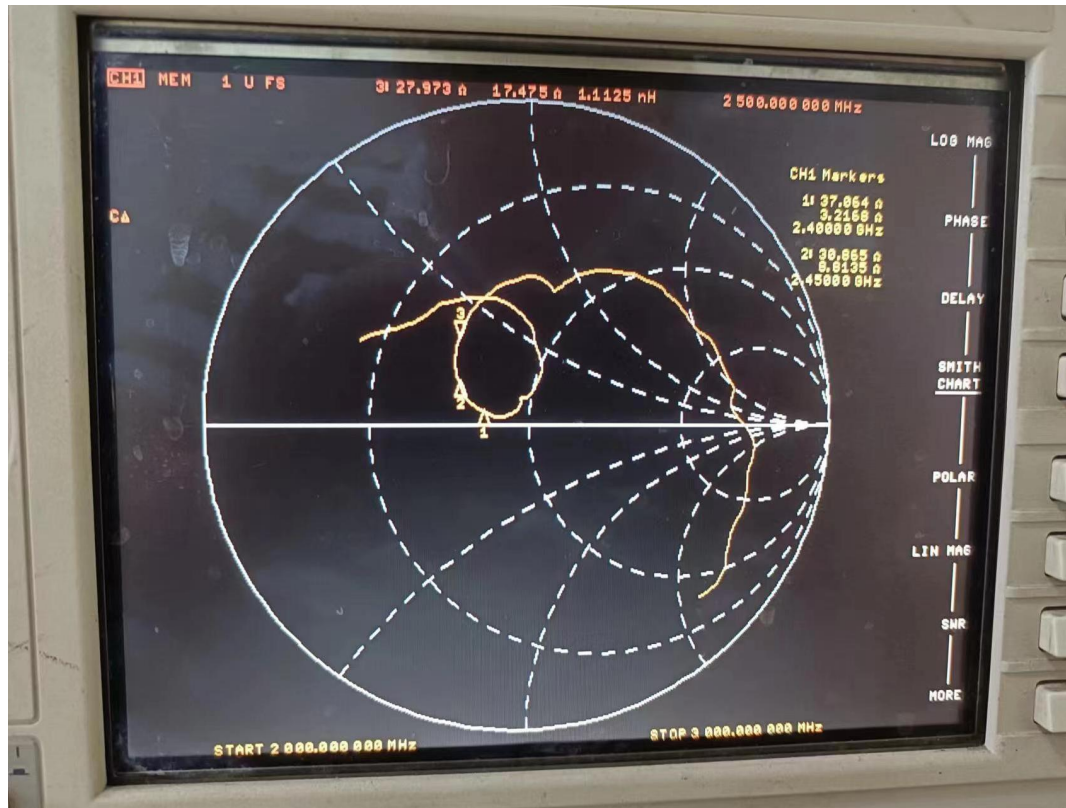
### 2.1 2.4G antenna RETRUN LOSS



Frequency (MHz)	2400	2450	2500
RETRUN LOSS (DB)	-16.30	-11.73	-9.07

## 2. Test Result

### 2.2 2.4G antenna Smith Chart



Frequency (MHz)	2400	2450	2500
	37.06	30.86	27.97

## 2. Test Result

### 2.3 2.4G antenna GAIN & Efficiency

Freq (MHz)	Effi (%)	Gain (dBi)
2400	56.54	3.11
2410	58.51	3.25
2420	53.49	2.78
2430	53.71	2.73
2440	58.85	3.09
2450	60.81	3.09
2460	56.89	2.69
2470	57.46	2.76
2480	64.64	3.31
2490	64.64	3.28
2500	62.95	3.06



## 2. Test Result

### 2.4 2.4G antenna 2D&3D Directional pattern

