

# WIFI Antenna Test Report



<b>Manufacturer information</b>	Shenzhen Feixun Lianke Electronics Co., Ltd
<b>Project</b>	C298 2.4G antenna
<b>Antenna type</b>	monopole antenna
<b>Product Description</b>	Three white flat antennas, color code 81831/82200, PCB board FXLK-PB78 * 8.3-3DB-2.4G V1.2, wire diameter 1.13, bus length 325mm, exposed 250mm, black, client is 1st generation terminal, solder board end is 1:2:3
<b>Product No</b>	BSJT14020A-IX0-250-2.4G
<b>Antenna frequency band</b>	2400MHz-2500MHz

October 4th, 2023

## ***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**

**Dimensional drawing of antenna coaxial line**

### **2: Test Result**

**2.1 VSWR**

**2.2 RETRUN LOSS**

**2.3 *Smith Chart***

**2.4 GAIN & Efficiency**

**2.5 *2D & 3D Directional pattern***

# 1. Product Overview

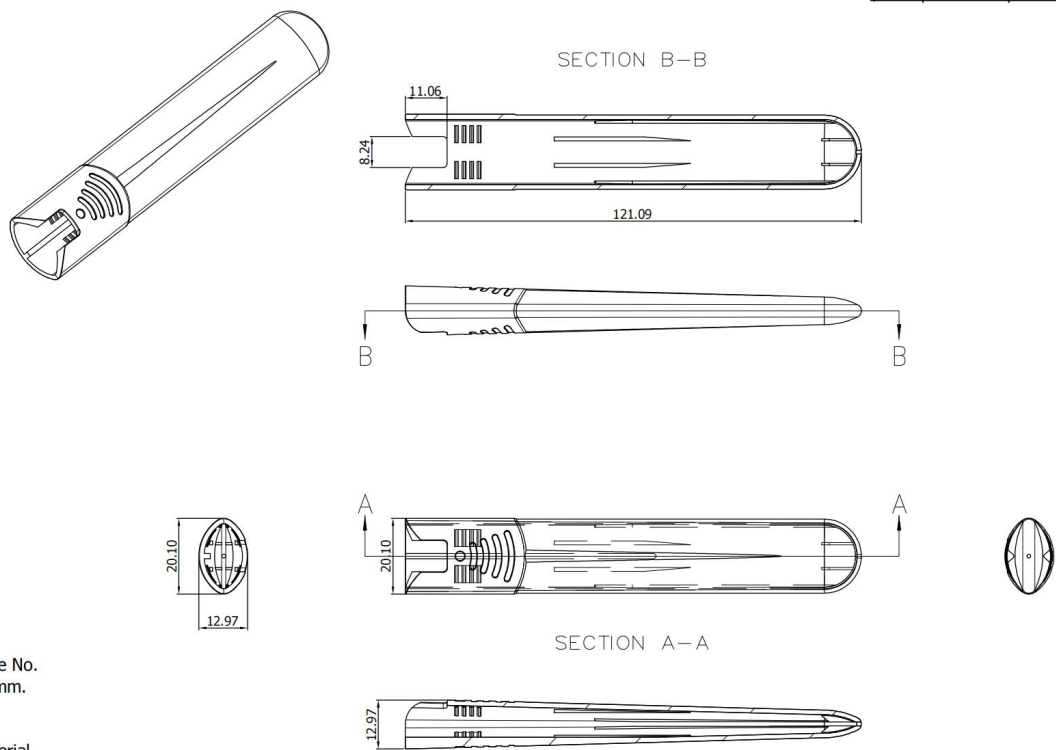
## 1.1 Antenna schematic diagram



# 1. Product Overview

## 1.2 Dimensional drawing of antenna shell material

REV	DATE	DESCRIPTION
A	05/15-2015	New Issue



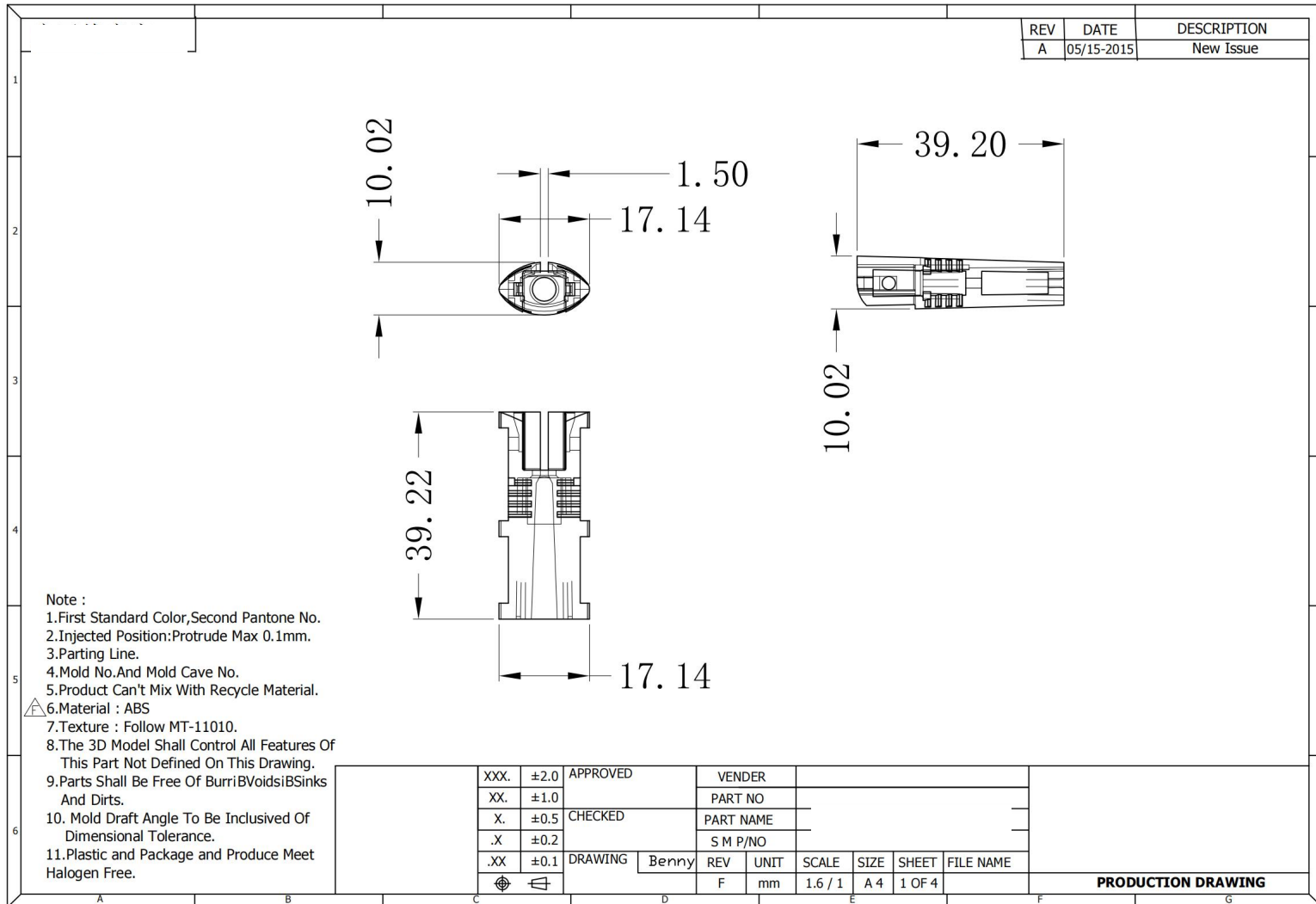
**Note :**

1. First Standard Color, Second Pantone No.
2. Injected Position: Protrude Max 0.1mm.
3. Parting Line.
4. Mold No. And Mold Cave No.
5. Product Can't Mix With Recycle Material.
6. Material : PBT or PC+PBT or Equivalent.
7. Texture : Follow MT-11010.
8. The 3D Model Shall Control All Features Of This Part Not Defined On This Drawing.
9. Parts Shall Be Free Of BurriB Voids iBSinks And Dirts.
10. Mold Draft Angle To Be Inclusive Of Dimensional Tolerance.
11. Plastic and Package and Produce Meet Halogen Free.

	XXX.	±2.0	APPROVED	VENDER					
	XX.	±1.0		PART NO					
	X.	±0.5	CHECKED	PART NAME					
	.X	±0.2		S M P/NO					
.XX	±0.1	DRAWING	Benny	REV	UNIT	SCALE	SIZE	SHEET	FILE NAME
			F	mm	1.6 / 1	A 4	1 OF 4		
			<b>PRODUCTION DRAWING</b>						

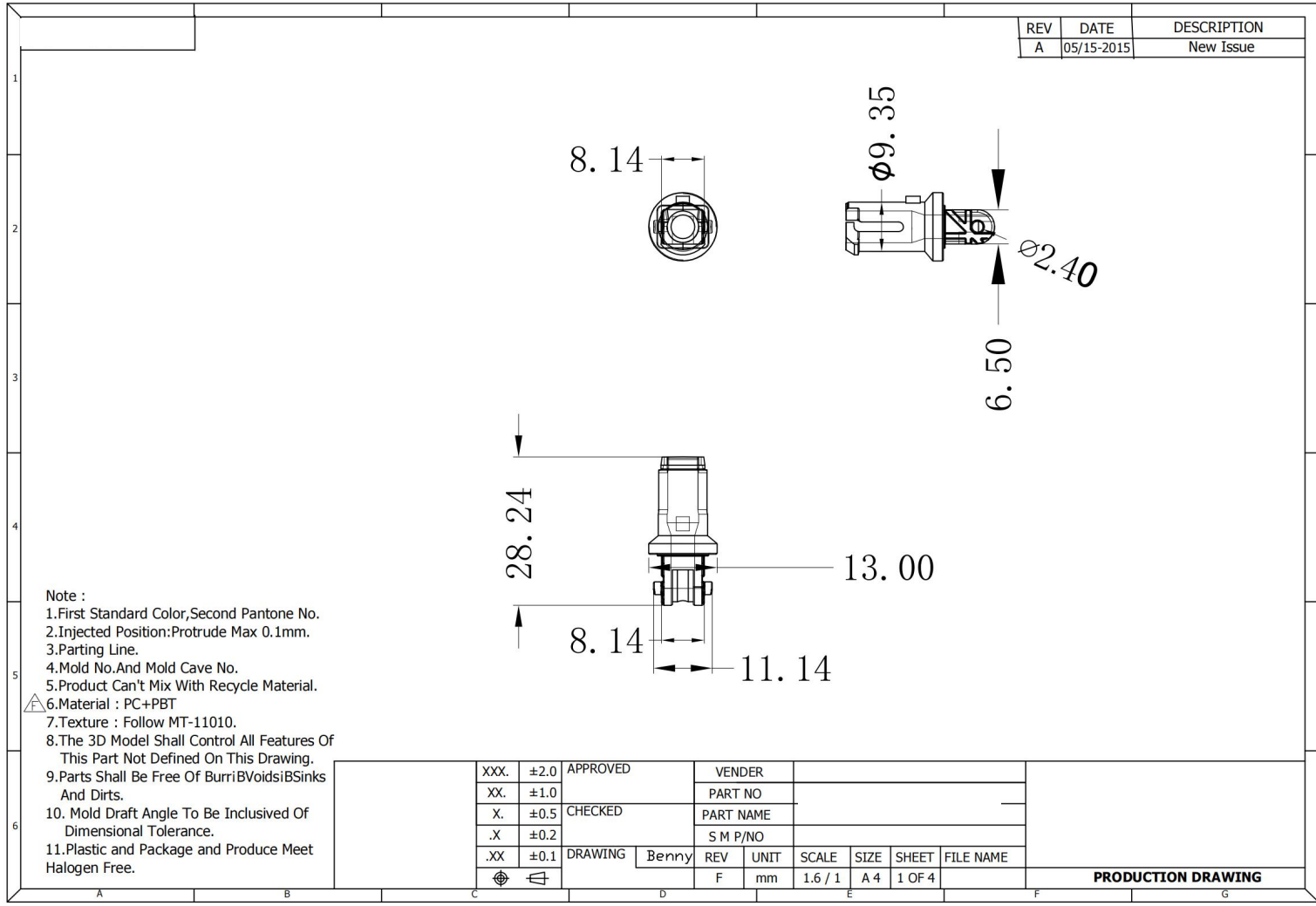
## 1. Product Overview

### 1.2 Dimensional drawing of antenna shell material



## 1. Product Overview

### 1.2 Dimensional drawing of antenna shell material



REV	DATE	DESCRIPTION
A	05/15-2015	New Issue

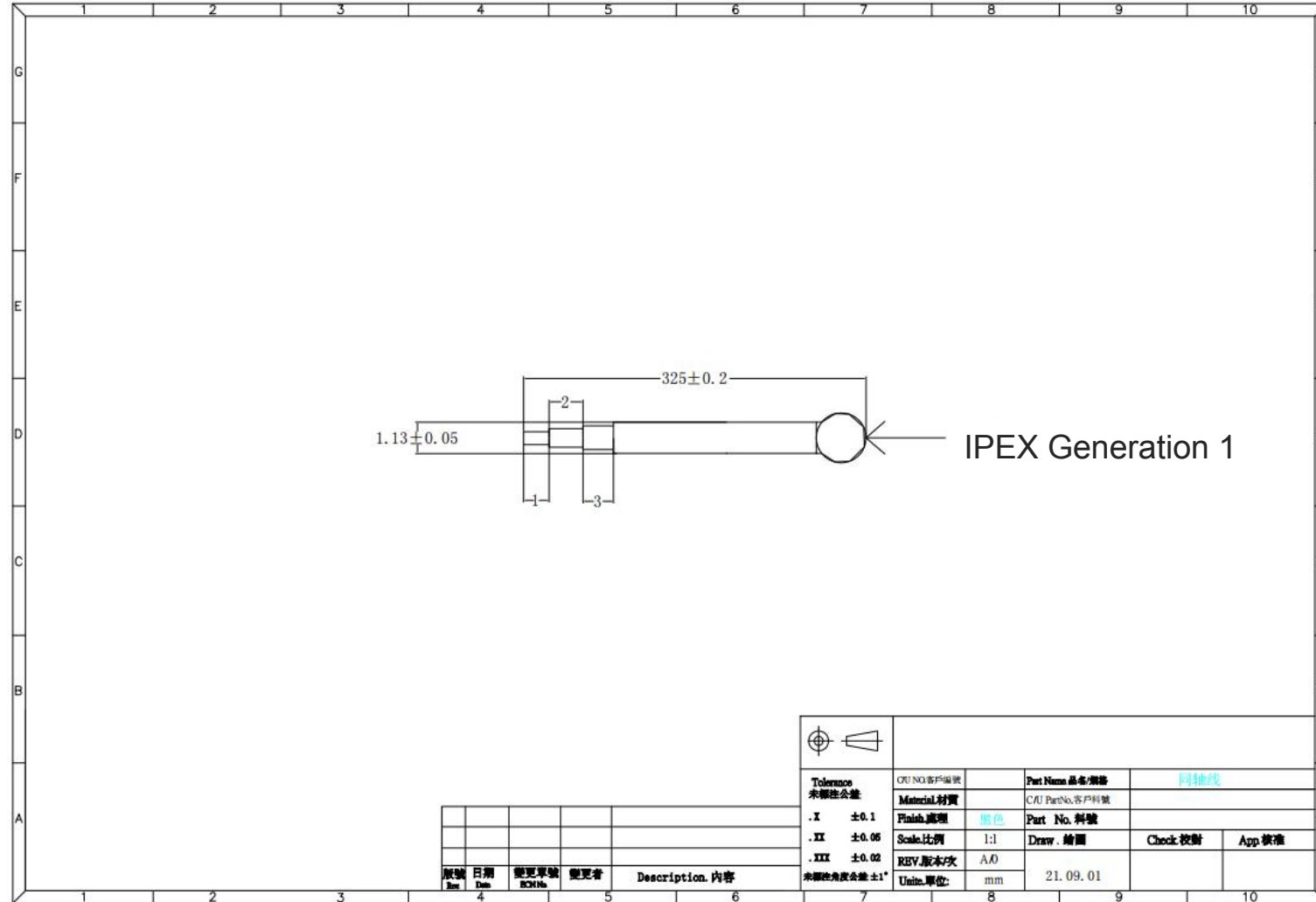
- Note :
- 1.First Standard Color,Second Pantone No.
  - 2.Injected Position:Protrude Max 0.1mm.
  - 3.Parting Line.
  - 4.Mold No.And Mold Cave No.
  - 5.Product Can't Mix With Recycle Material.
  - 6.Material : PC+PBT
  - 7.Texture : Follow MT-11010.
  - 8.The 3D Model Shall Control All Features Of This Part Not Defined On This Drawing.
  - 9.Parts Shall Be Free Of BurriBvoidsiBSinks And Dirts.
  10. Mold Draft Angle To Be Inclusive Of Dimensional Tolerance.
  - 11.Plastic and Package and Produce Meet Halogen Free.

XXX.	±2.0	APPROVED	VENDER						
XX.	±1.0		PART NO						
X.	±0.5	CHECKED	PART NAME						
.X	±0.2		S M P/NO						
.XX	±0.1	DRAWING	Benny	REV	UNIT	SCALE	SIZE	SHEET	FILE NAME
			F	mm	1.6 / 1	A 4	1 OF 4		

**PRODUCTION DRAWING**

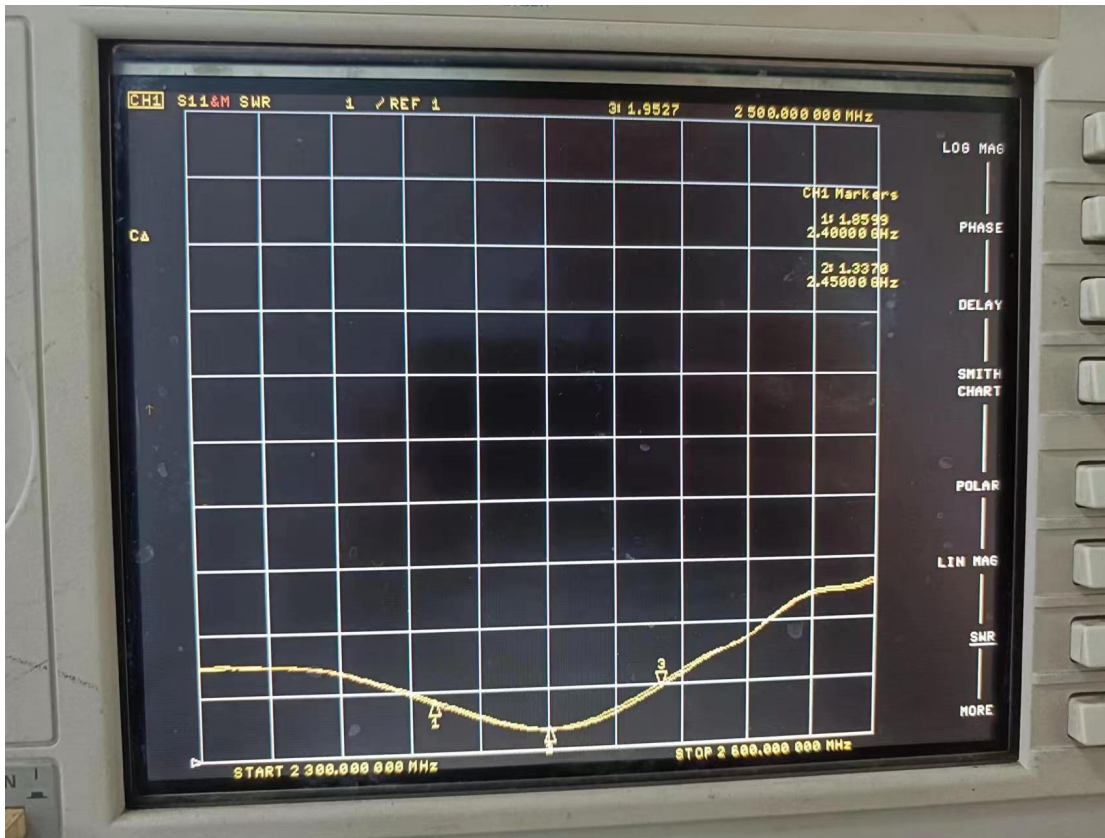
# 1. Product Overview

## 1.2 Dimensional drawing of antenna coaxial line



## 2. Test Result

### 2.1 2.4G antenna VSWR

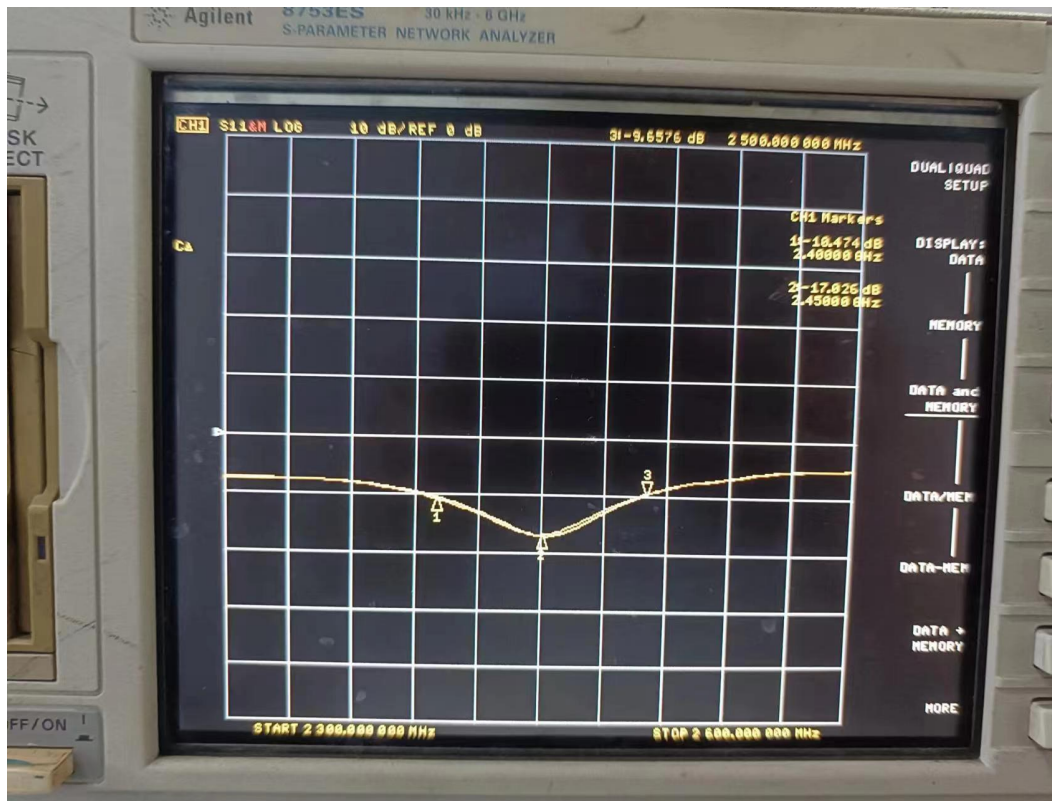


Frequency (MHz)	2400	2450	2500
VSWR	1.85	1.33	1.95



## 2. Test Result

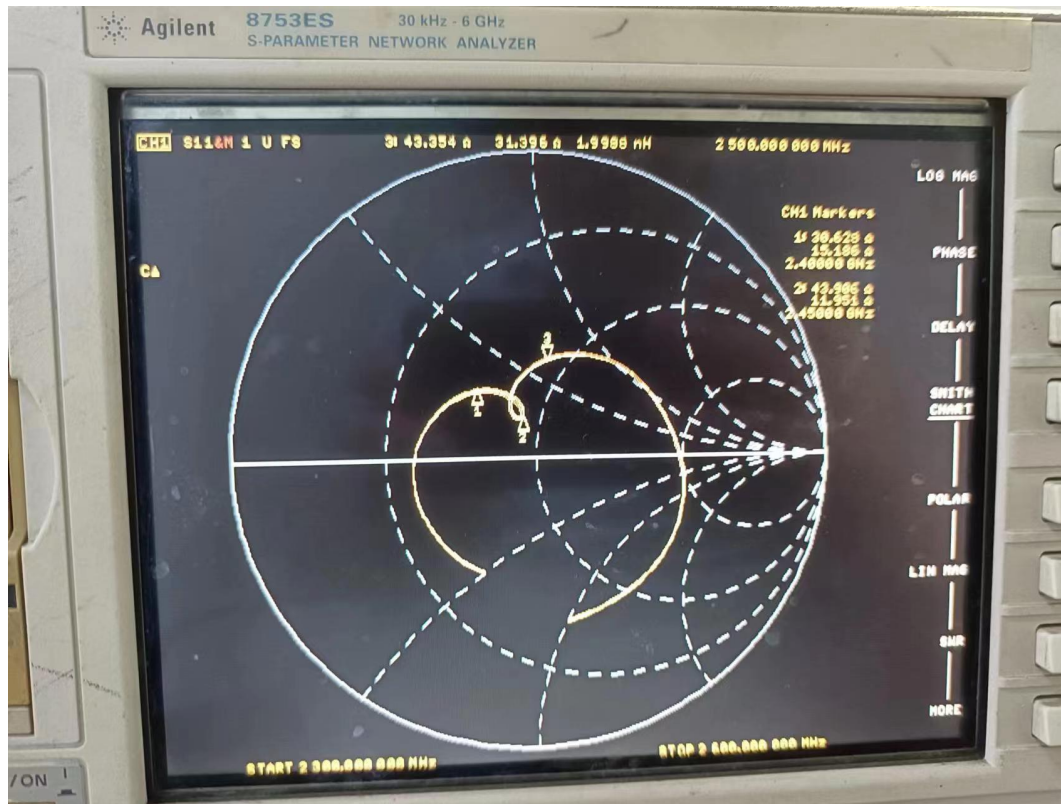
### 2.2 2.4G antenna RETRUN LOSS



Frequency (MHz)	2400	2450	2500
RETRUN LOSS (DB)	-10.47	-17.02	-9.65

## 2. Test Result

### 2.3 2.4G antenna Smith Chart



Frequency (MHz)	2400	2450	2500
	30.62	43.90	43.35

## 2. Test Result

### 2.4 2.4G antenna GAIN & Efficiency

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	52.18	-2.83	2.83
2410	50.51	-2.97	2.82
2420	44.98	-3.47	2.48
2430	47.47	-3.24	2.92
2440	45.25	-3.44	2.98
2450	46.25	-3.35	3.37
2460	47.73	-3.21	3.62
2470	43.7	-3.6	3.34
2480	47.05	-3.27	3.77
2490	46.05	-3.37	3.74
2500	45.79	-3.39	3.68

## 2. Test Result

### 2.5 2.4G antenna 2D & 3D Directional pattern

