

ShenZhen Wllink Technology Co.,Ltd  
SPECIFICATION FOR APPROVED

PRODUCTS: FPC Antenna  
PART NO: C001-R-V6  
Data: 2023. 12. 01

SUPPLIER		
PREPARED BY	CHECKED BY	APPROVED BY

CUSTOMER		
ACCEPTED BY	CHECKED BY	APPROVED BY

REMARK:Please send us one(or copy)of this approval with stamp after accepting,other copies filed by the customer.

# ANTENNASPECIFICATION

## 1. Project Information

### 1.1. Appearance and Dimensions

Test point	Specifications	Test result
Overall dimensions	7mm*18.2mm ( $\pm 0.2$ mm)	OK
Golden finger		OK
Drawing		

Inspection items		Inspection results
Material specification	25um copper+12.5um glue+12.5umPI	OK
Material	Half and half (Electrolytic copper)	OK
Material	gummed paper (3M300LSE)	OK
Electroplate	<b>Gold plating</b>	OK
Appearance	<b>Surface: matte black</b>	OK

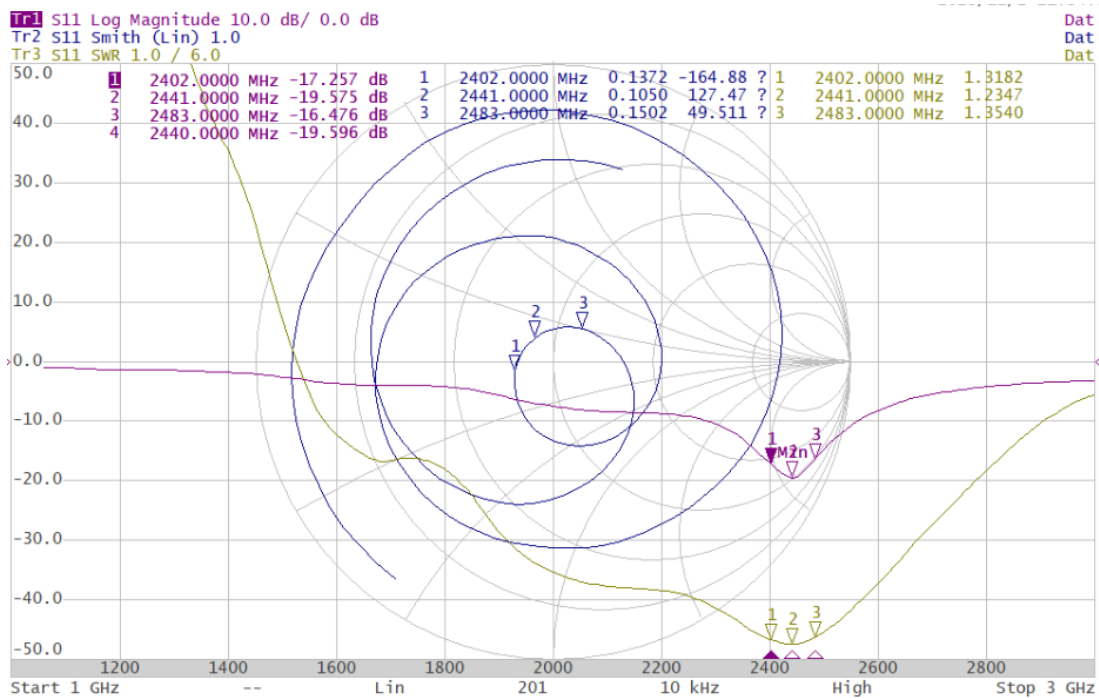
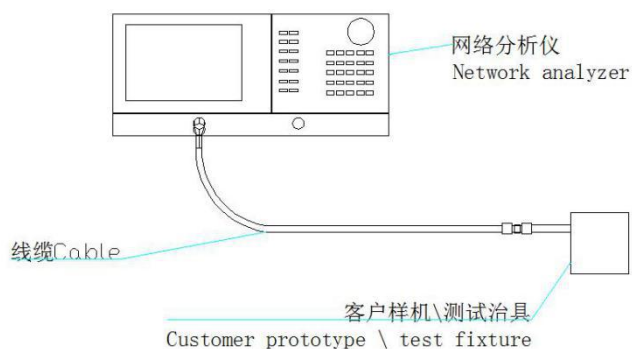
# ANTENNA SPECIFICATION

## 2. Electrical Characteristics

### 2.1. Test Environment Conditions

Temperature	Ordinary Temperature (5 to 35°C)
Humidity	Ordinary Humidity (25 to 85% RH)

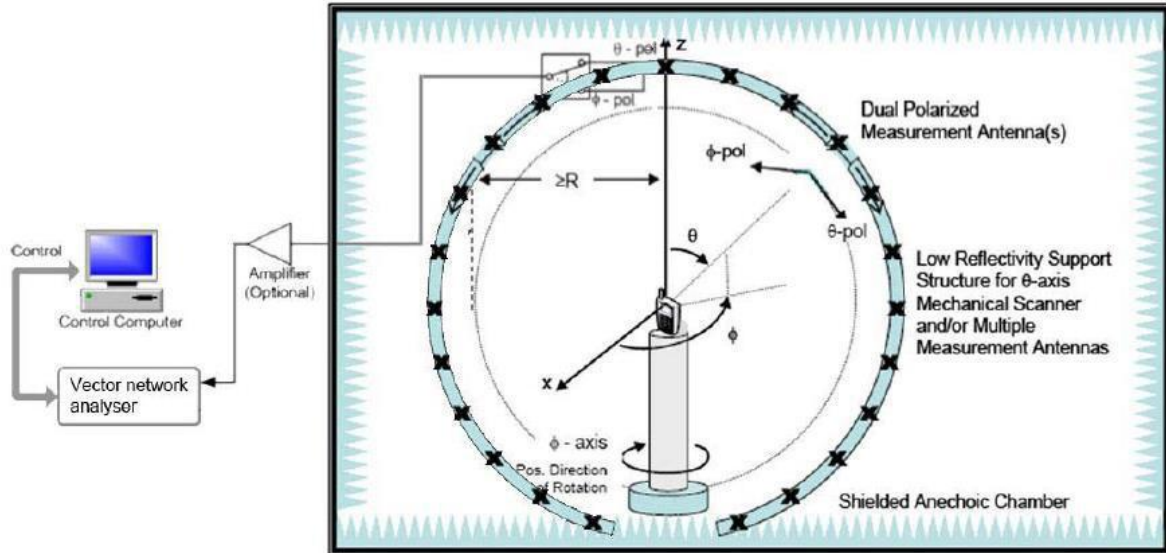
### 2.2. Measurement method



# ANTENNA SPECIFICATION

## 2.3. Efficiency and Gain

### 2.3.1. Test system

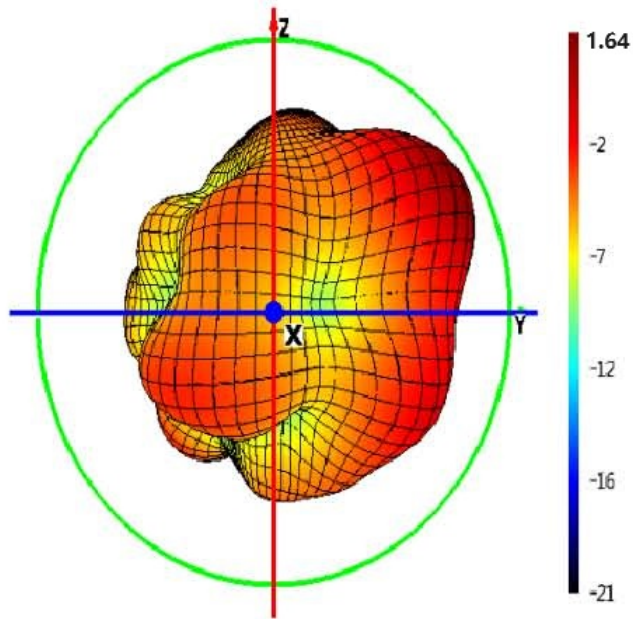


### 2.3.2. No-source test data

R边-Gain&Efficiency 增益、效率			
frequency 频率(MHz)	gain 增益(dBi)	efficiency 效率(dB)	efficiency 效率
2400	1.15	-4.53	35.66%
2410	1.22	-4.21	36.95%
2420	1.53	-3.9	38.67%
2430	1.61	-3.87	38.06%
2440	1.42	-3.96	37.22%
2450	1.64	-3.84	38.33%
2460	1.3	-4.01	36.72%
2470	1.2	-3.98	36.99%
2480	1.14	-4.26	35.14%
2490	1.04	-4.54	33.81%
2500	0.96	-4.61	30.80%

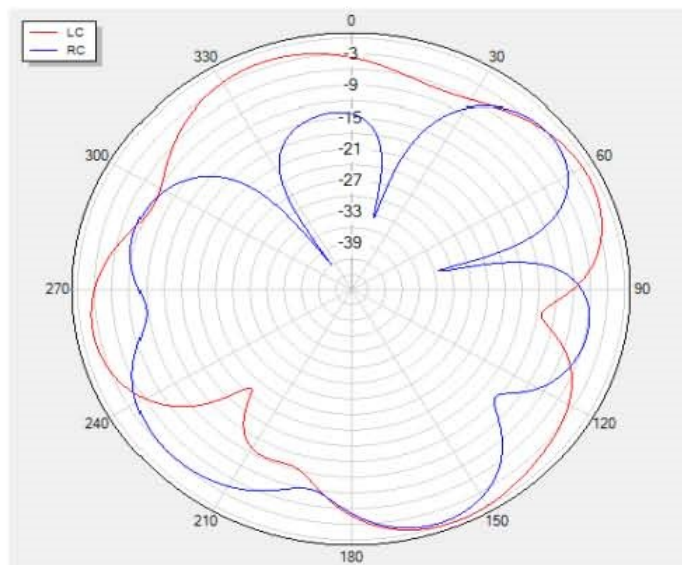
# ANTENNASPECIFICATION

## 2.3.3. 3D Radiation Drawing



## 2.3.4. directional drawing of horizontal plane

**Theta=90 freq=2400MHz**



## ANTENNA SPECIFICATION

### 4. Reliability test

Item	Test methods and conditions	Specifications and requirements
Storage conditions	Temperature, humidity and air pressure are as follows: 1、 Temperature: $-30^{\circ}\text{C}\sim+80^{\circ}\text{C}$ 2、 Air pressure: 45%-85% 3、 Pressure :86Kpa-106Kpa	There is no change in appearance, and all antenna parameters are consistent with those of previous tests
Salt spray test	salinity is in range of 5% ;PH6.5-7.2;Temperature $35\pm 1^{\circ}\text{C}$ ;Corrosion time 16H.	
Vibration test	10-2000-10HZ amplitude 1.52mm Ten times along the X,Y,Z direction	
Drop Test	Drop from 1m onto the board	
Pull test	Bearing capacity $\geq 4\text{N}$	
Constant temperature and humidity	humidity : $40^{\circ}\text{C}\pm 2^{\circ}\text{C}$ , 90-95%RH Duration: 4H recovery time: 1-2H	
High and low temperature test	$70^{\circ}\text{C}$ - $20^{\circ}\text{C}$ 5 cycles , Under normal conditions 1-2H	