

# WiFi Dual Bands Flexible PCB Antenna SPECIFICATION



P/N: FPC-00WAI1A

## Antenna Features

### Electrical

WiFi Dual Bands

2.4GHz/5GHz

### Environmental

Dim: 43.8mm\*9.3mm\*0.13mm

-50°C~85°C Thermal Resistance

RoHS, REACH Compliant

### Installation

Double Sided Adhesive

Direct Stick on Device Enclosure

### Application

WiFi application

M2M devices

I BAR Antenna

Omni-directional Radiation Pattern



**\*NVC WiFi FPC Antenna\***

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Flexible PCB Antenna Series

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## **1. Introduction**

NVC provide different scerario options could be selected, please read the technical specifications to choose suitable solution for you. Or, contact local sales for supporting.

## 2. Specification

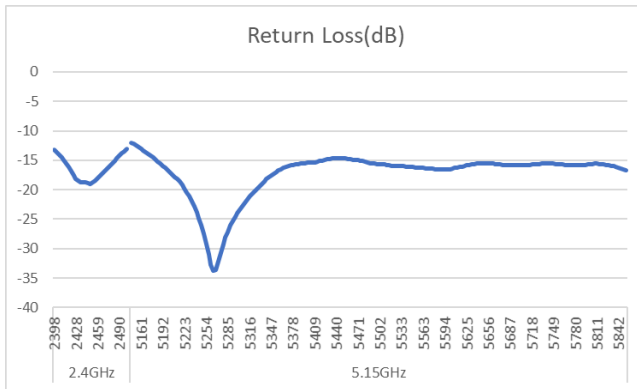
WiFi Dual Bands Antenna		
Band	WiFi 2.4GHz	WiFi 5GHz
Frequency (MHz)	2400-2500	5150-5850
Technical Spec		
Peak Gain (dBi)	2.26	3.52
Efficiency (%)	>59	>48
Polarization	Linear Polarization	
Impedance	50Ω	
MECHANICAL		
Dimension	43.8mm*9.3mm*0.13mm	
Mounting Method	Double sided adhesive	
Material Content	Flexible PCB	
Coaxial Cable	φ 1.37mm Micro Coax., 81.5mm length, Fully Customizable	
Connector	IPEX MHFI, Fully Customizable	
Adhesive	3M467	
Weight	1.2g/1pcs	
Pulling Force	Minimum 2 KGF/cm <sup>2</sup>	
ENVIRONMENTAL		
Operation Temperature	-40°C to 85°C	
Storage Temperature	-40°C to 90°C	
Humidity	Non-condensing 65°C 95% RH	

\*The antenna was tested on 2mm thick ABS board.

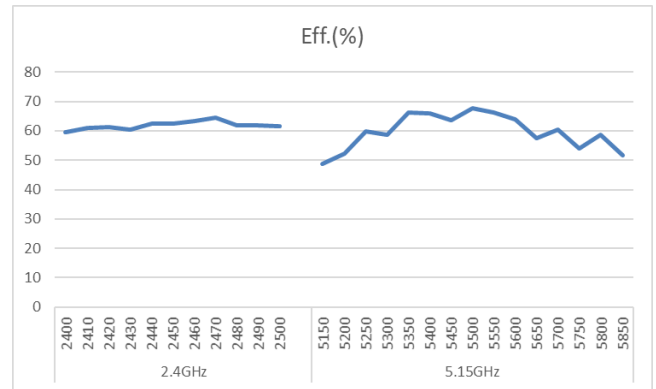
### 3. Antenna Characteristics

#### 3.1. WiFi Dual Bands Antenna

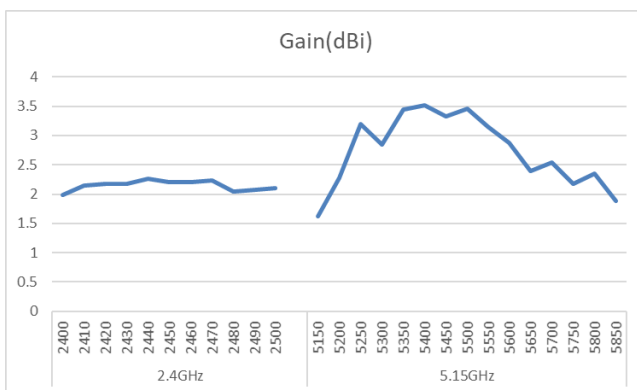
##### 3.1.1. Return Loss



##### 3.1.2. Efficiency



##### 3.1.3. Peak Gain



**\*The antenna was measured on 2mm thick ABS board.**

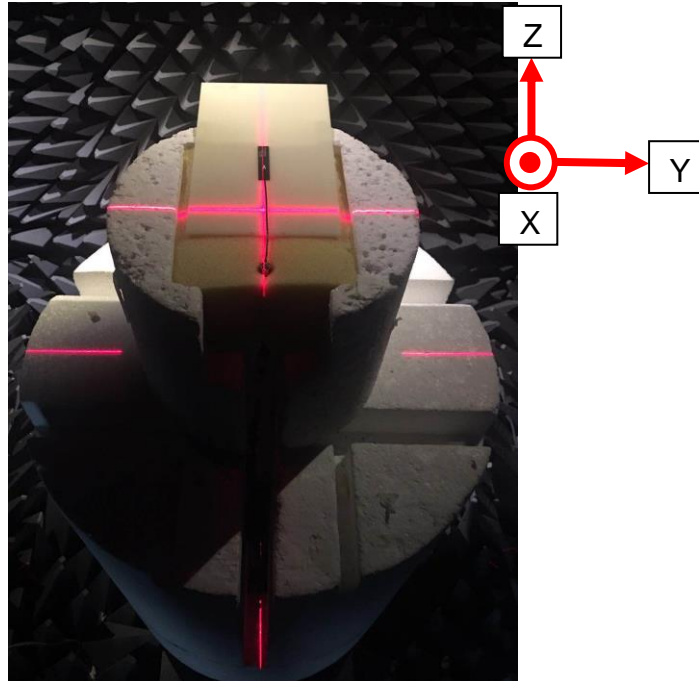


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Flexible PCB Antenna Series

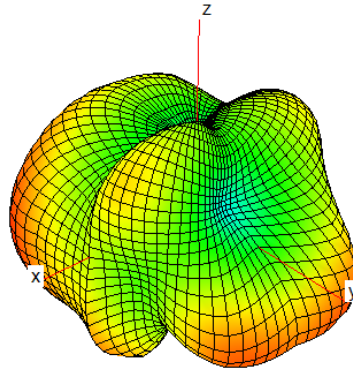
P/N: FPC-00WAI1A

### 3.1.4. Antenna Measurement Coordinate & 3D Patterns

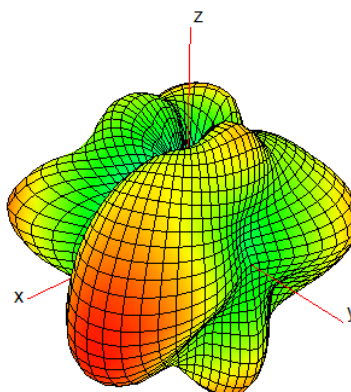


\*Testing set in NVC GTS2800 compatible Anechoic Chamber

**2450MHZ**



**5550MHZ**

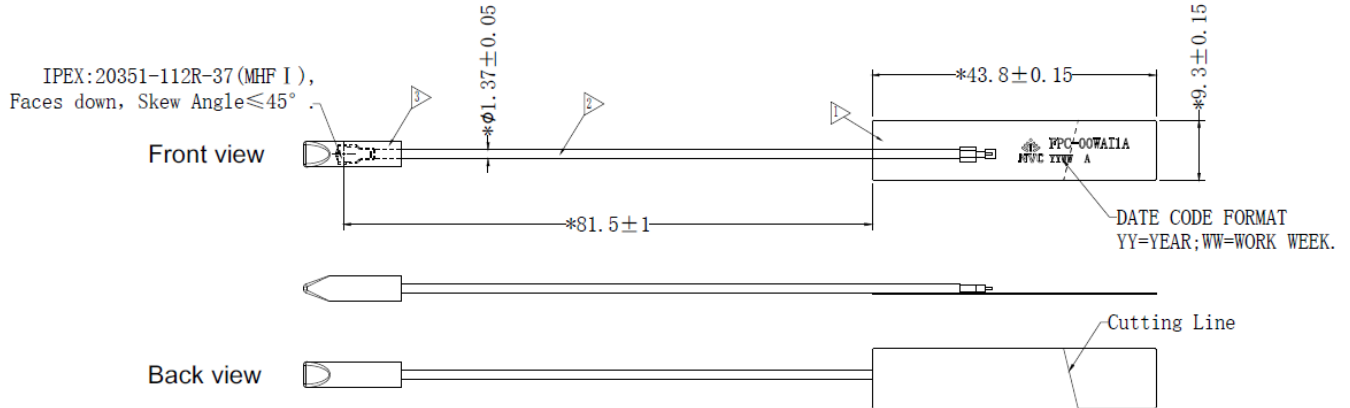




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**4. Drawing**

**Flexible PCB Antenna Series**

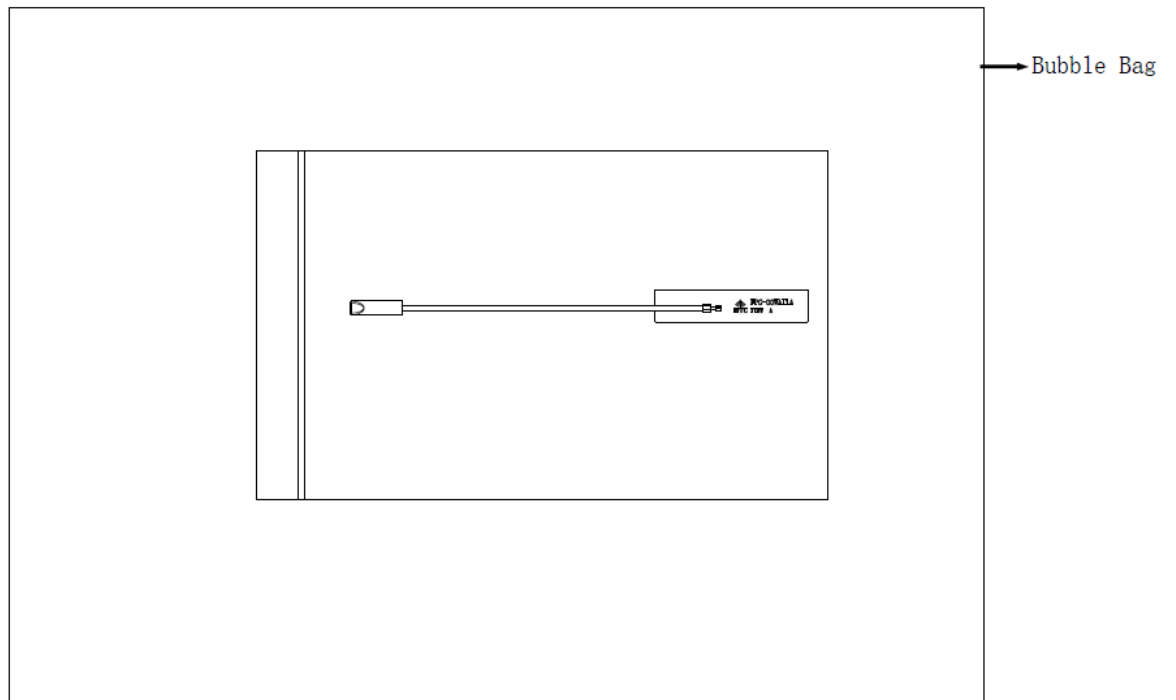
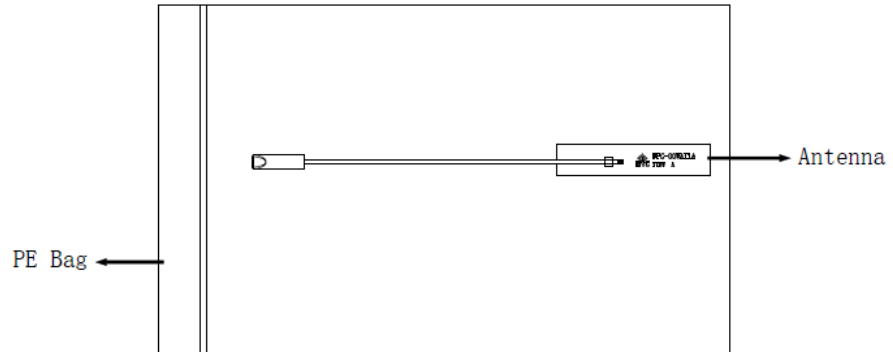
**P/N: FPC-00WAI1A**



3	66-FPC-00WAI0A01	RF plug protector: $\phi 3 * L15$	1
2	41-FPC-00WAI1A01	FPC-00WAI1A01-Cable-Black- $\phi 1.37$ -IPEX1	1
1	40-FPC-00WAI1A01	FPC-00WAI1A01-FPC-Black-PI	1
ITEM	Part NO.	Description	QTY

**Unit: mm**

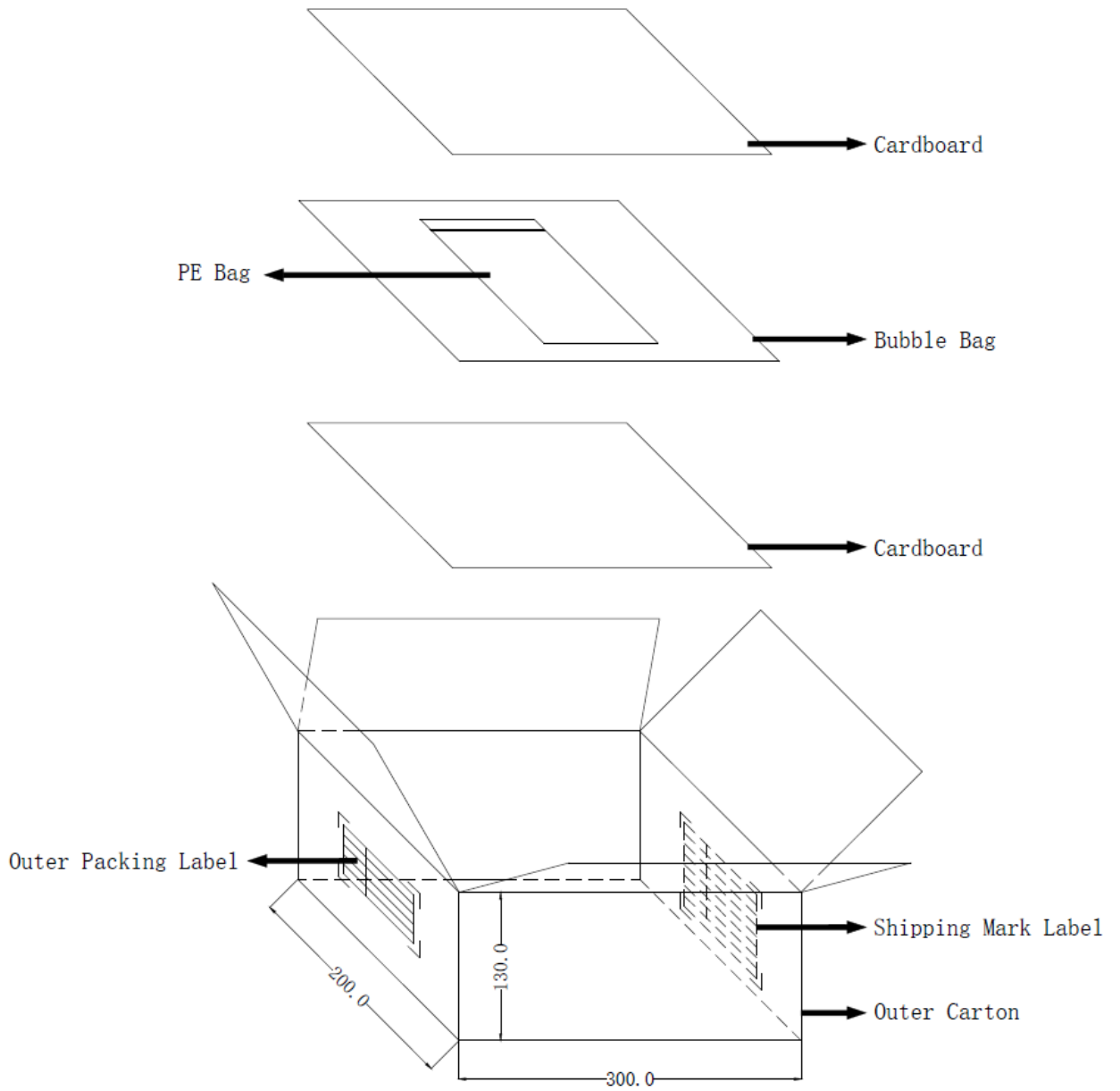




10 pieces per PE Bag

200 pieces per Bubble Bag

2000 pieces per Outer Carton





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## **6. Application Note**

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The antenna can be easily stick on the inner side of the device enclosure, please be aware any metal content part might affect antenna radiation performance. Please keep the metal content part as far as possible to antenna. If your evaluation cannot avoid the metal content part approximate to antenna body. Please contact your local supporting NVC sales, we will provide the best simulation in your application. Also, get the antenna fine tuned with the best performance delivery.