



Flexible PCB Antenna Series

P/N: FPC-0WGAI0A

# WiFi & GPS Bands

## Flexible PCB Antenna

### SPECIFICATION



P/N: PCB-0WGAI0A

#### Antenna Features

##### Electrical

WiFi & GPS L Bands

##### Environmental

Dim: 42.2mm\*9.5mm\*0.85mm

-50°C~85°C Thermal Resistance

RoHS, REACH Compliant

##### Installation

Double Sided Adhesive

Direct Stick on Device Enclosure

##### Application

Navigation System Supporting

M2M devices

Wifi Applications



**\*NVC WiFi&GPS PCB Antenna\***

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**NOVOCOMMS**

## **1. Introduction**

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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.

WiFi & GPS Bands Antenna			
Band	GPS	WiFi	WiFi
Frequency (MHz)	1550-1621	2400-2500	5150-5850
Technical Spec			
Peak Gain (dBi)	0.55	1.85	4.27
Efficiency (%)	>35	>45	>50
Polarization	Linear Polarization		
Impedance	50Ω		
MECHANICAL			
Dimension	42.2mm*9.5mm*0.85mm		
Mounting Method	Double sided adhesive		
Material Content	PCB		
Coaxial Cable	φ 1.37mm Micro Coax., 92.4mm length, Fully Customizable		
Connector	IPEX MHFI		
Adhesive	3M467		
Weight	0.82g/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		

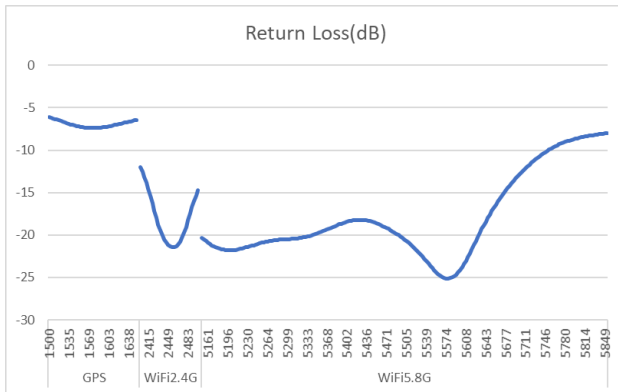
\*The antenna was tested on 2mm thick ABS board.



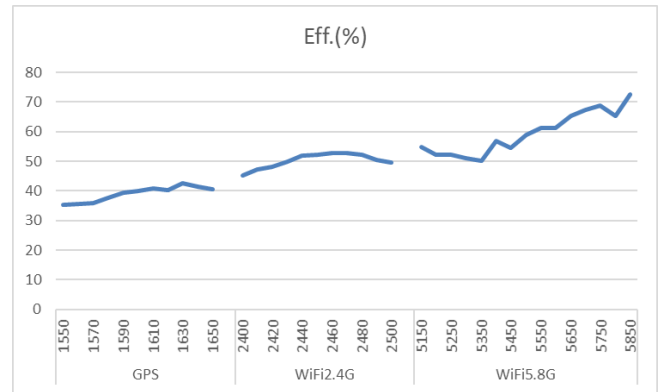
### 3. Antenna Characteristics

#### 3.1. WiFi & GPS Bands Antenna

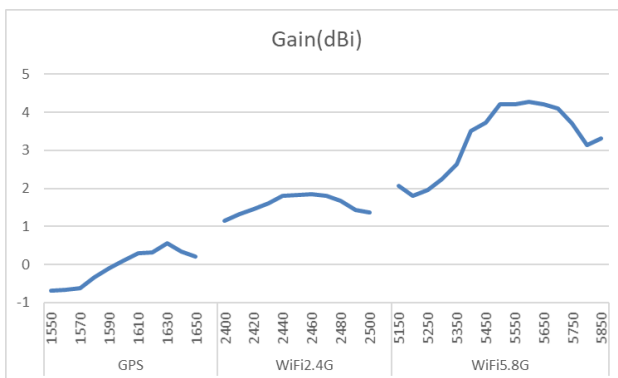
##### 3.1.1. Return Loss



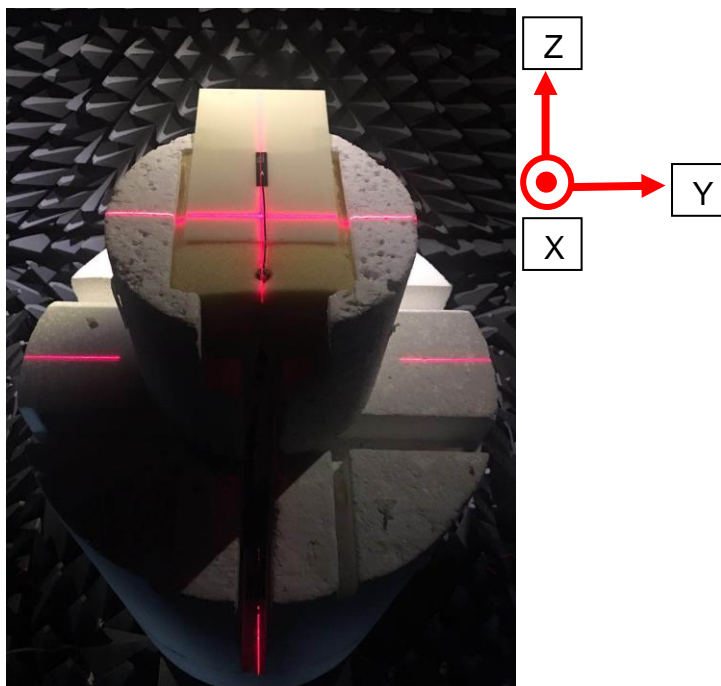
##### 3.1.2. Efficiency



##### 3.1.3. Peak Gain

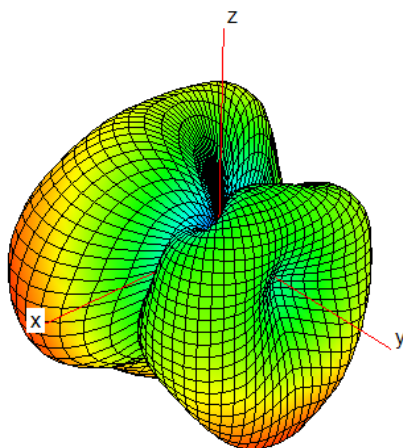


### 3.1.4. Antenna Measurement Coordinate & 3D Patterns

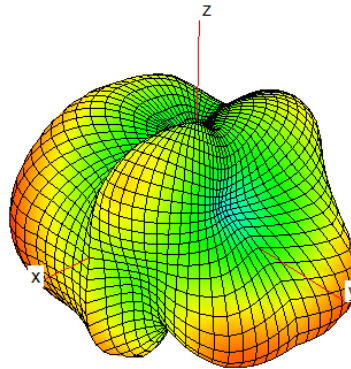


\*Testing set in NVC GTS2800 compatible Anechoic Chamber

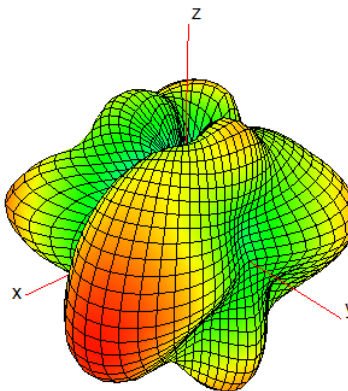
**1575 MHZ**



**2450MHZ**



**5550MHZ**

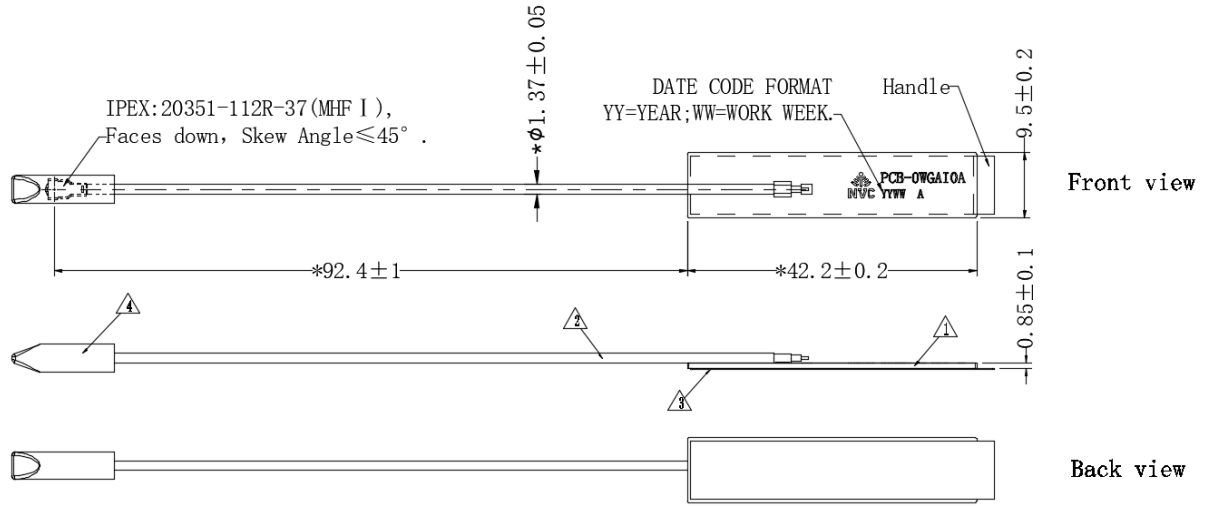




**NOVOCOMMS**  
**4. Drawing**

**Flexible PCB Antenna Series**

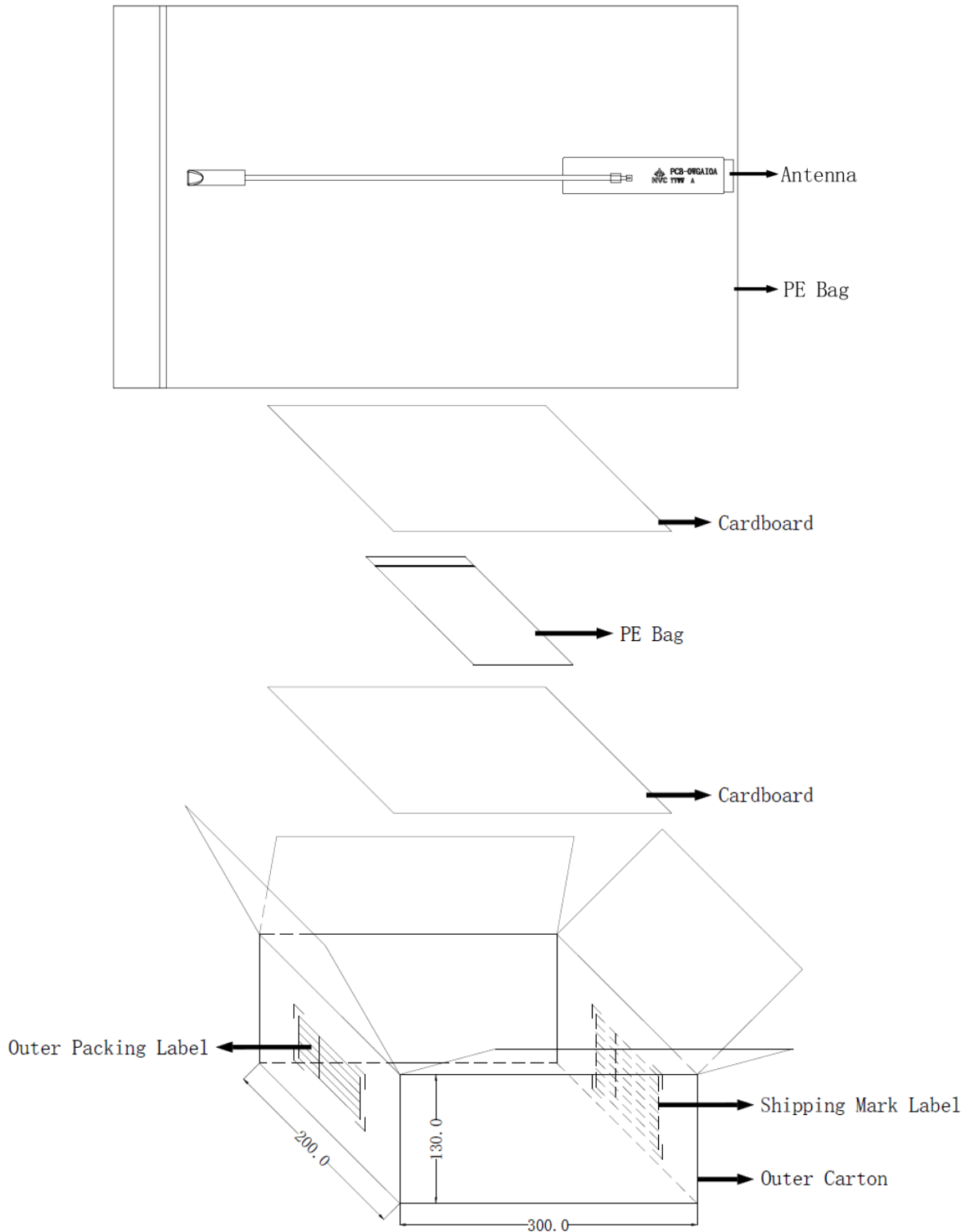
**P/N: FPC-0WGAI0A**



4	66-FPC-00WAI0A01	RF plug protector: $\Phi 3 * L15$	1
3	44-PCB-0WGAI0A01	Adhesive: 3M467MP.	1
2	41-PCB-0WGAI0A01	PCB-0WGAI0A-Cable-Black- $\Phi 1.37$ -IPEX1	1
1	40-PCB-0WGAI0A01	PCB-0WGAI0A-PCB-Black-T0.8	1
ITEM	Part NO.	Description	QTY

**Unit: mm**





10 pieces per PE Bag  
1000 pieces per Outer Carton



## 6. Application Note

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.