

# GNSS L Bands Flexible PCB Antenna SPECIFICATION



P/N: FPC-00BAI0A

## Antenna Features

### Electrical

GNSS L Bands  
Beidou/GPS/GLONASS/L-Band  
1621MHz

### Environmental

Dim: 35.4mm\*35.4mm\*0.13mm  
-50°C~85°C Thermal Resistance  
RoHS, REACH Compliant

### Installation

Double Sided Adhesive  
Direct Stick on Device Enclosure

### Application

Navigation System Supporting  
M2M Communications



**\*NVC GNSS L Bands 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.



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# Flexible PCB Antenna Series

P/N: FPC-00BAI0A

## 2. Specification

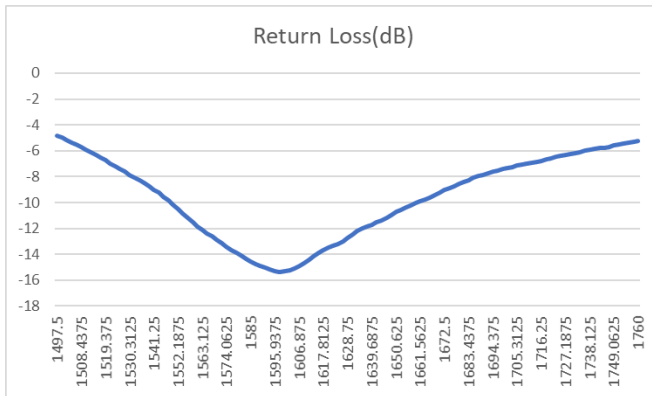
GNSS L Bands Antenna				
Band	Beidou	GPS	GLONASS	L-Band
Frequency (MHz)	1561	1575.42	1602	1621
Technical Spec				
Peak Gain (dBi)	1.67	1.92	2.33	2.17
Efficiency (%)	56.96	58.53	63.99	61.18
Return loss (dB)	<-10			
Polarization	Linear Polarization			
Impedance	50Ω			
MECHANICAL				
Dimension	35.4mm*35.4mm*0.13mm			
Mounting Method	Double sided adhesive			
Material Content	Flexible PCB			
Coaxial Cable	φ 1.37mm Micro Coax., 70.8mm length, Fully Customizable			
Connector	IPEX MHFI			
Adhesive	3M467			
Weight	3g/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.

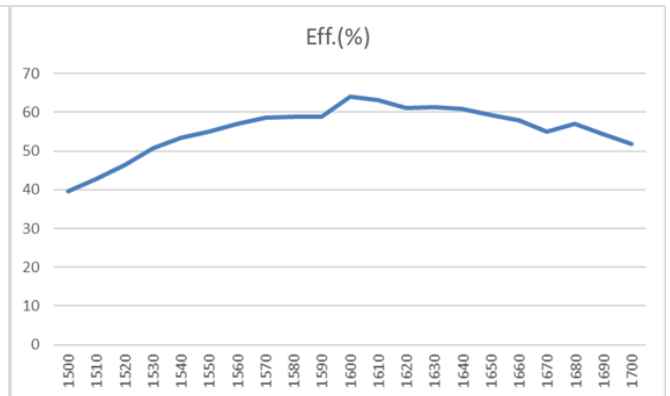
### 3. Antenna Characteristics

#### 3.1. GNSS L Bands Antenna

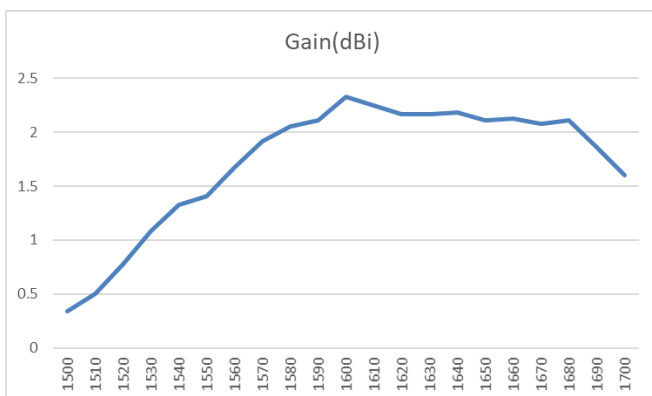
##### 3.1.1. Return Loss



##### 3.1.2. Efficiency



##### 3.1.3. Peak Gain



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

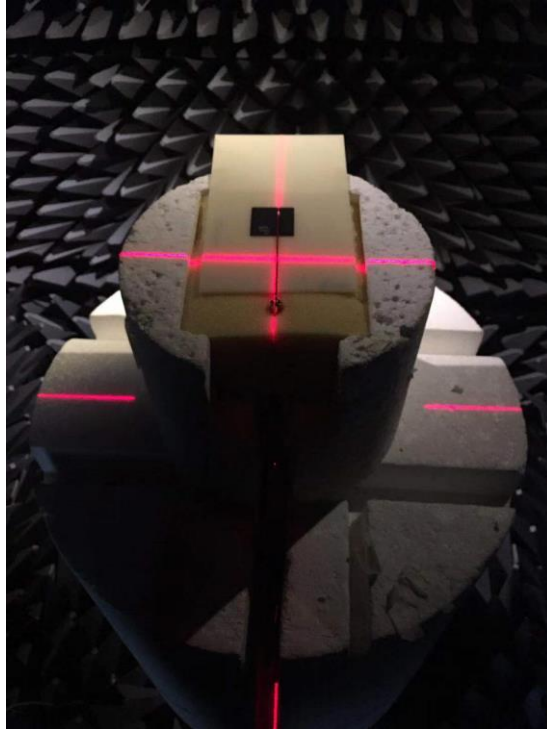


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## Flexible PCB Antenna Series

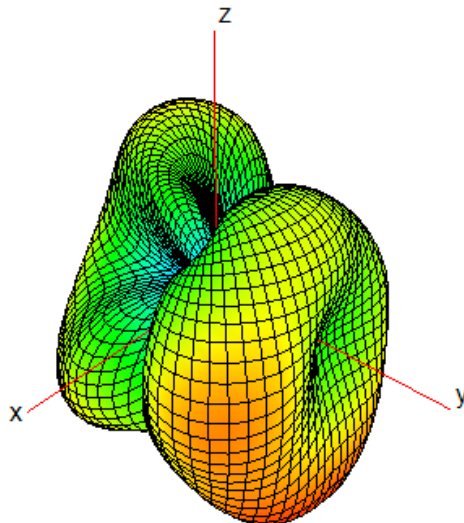
P/N: FPC-00BAI0A

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



\*Testing set in NVC GTS2800 compatible Anechoic Chamber

**1561 MHZ**

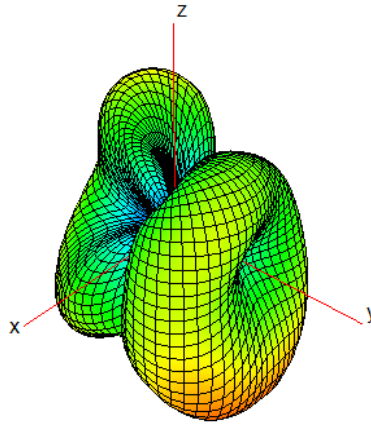




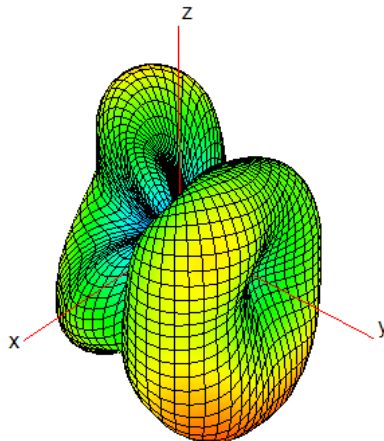
**NOVOCOMMS**  
**1575.42MHZ**

## Flexible PCB Antenna Series

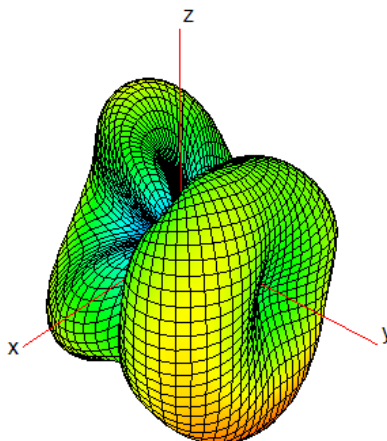
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**1602MHZ**



**1621MHZ**



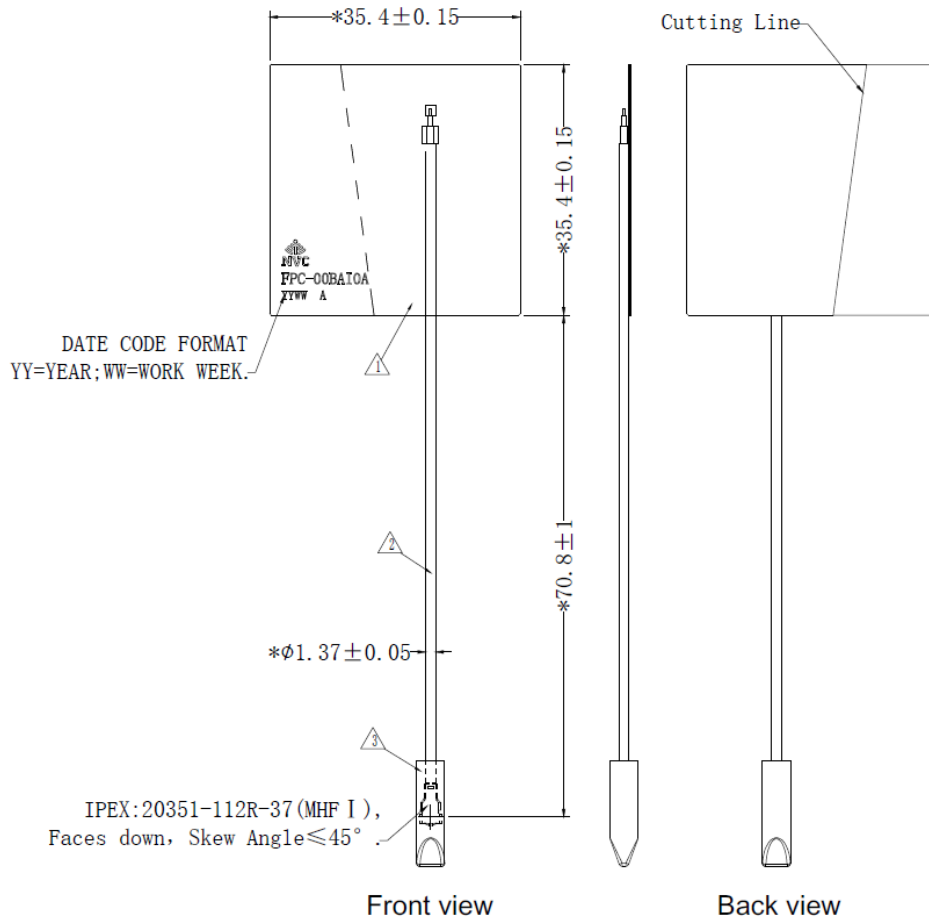


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# 4. Drawing

## Flexible PCB Antenna Series

P/N: FPC-00BA10A



3	66-FPC-00WAI0A01	RF plug protector: $\phi 3 * L15$	1
2	41-FPC-00BA10A01	FPC-00BA10A-Cable-Black- $\phi 1.37$ -IPEX1	1
1	40-FPC-00BA10A01	FPC-00BA10A-FPC-Black-PI	1
ITEM	Part No.	Description	QTY

Unit: mm



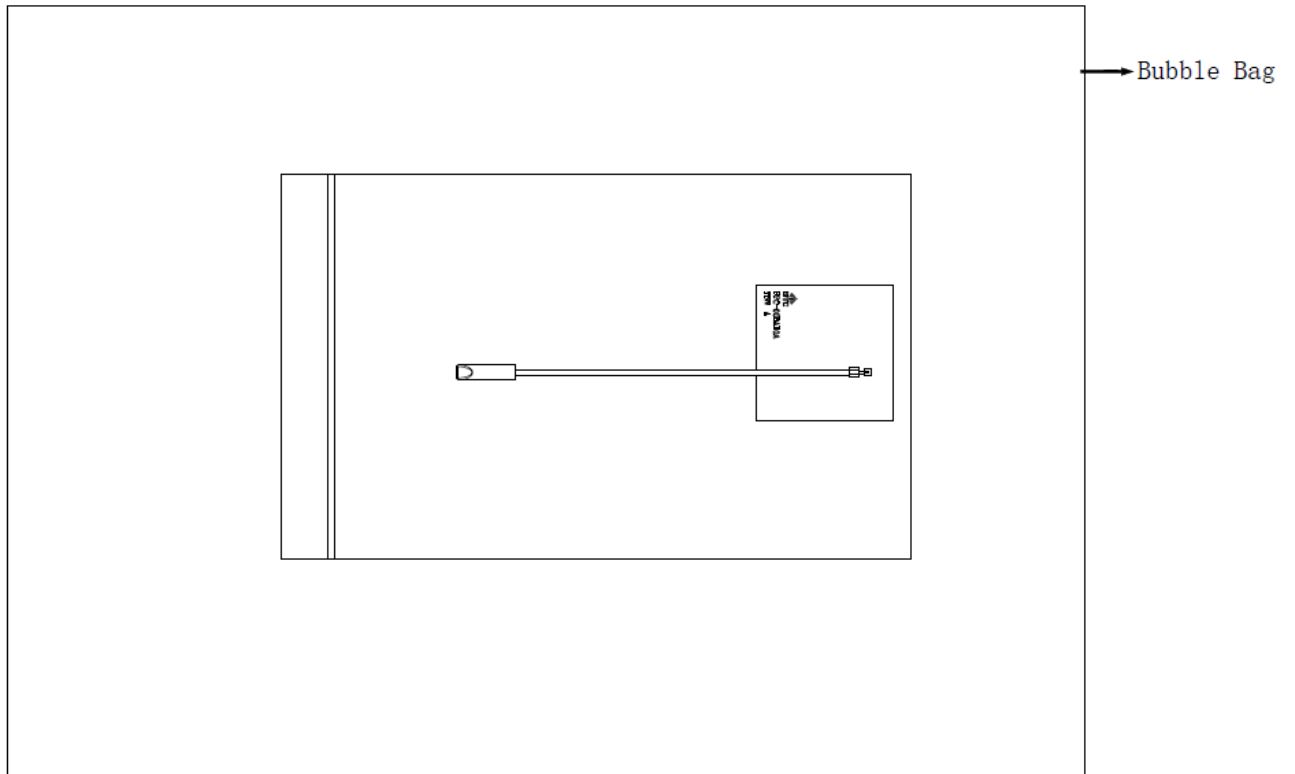
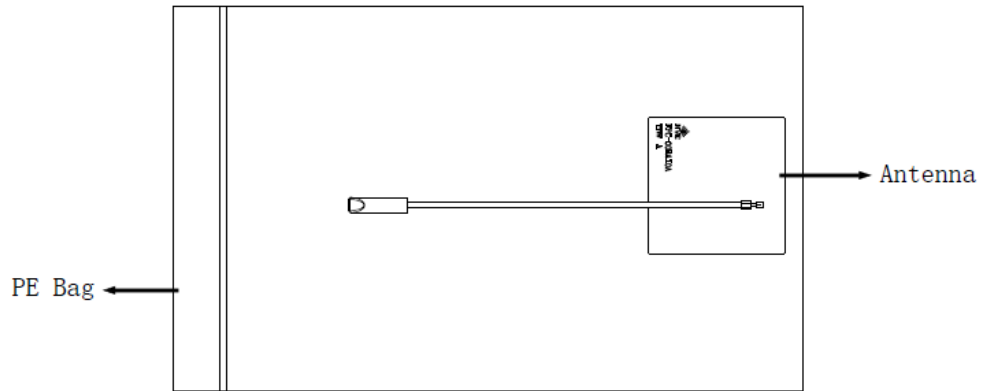


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## 5. Packaging

### Flexible PCB Antenna Series

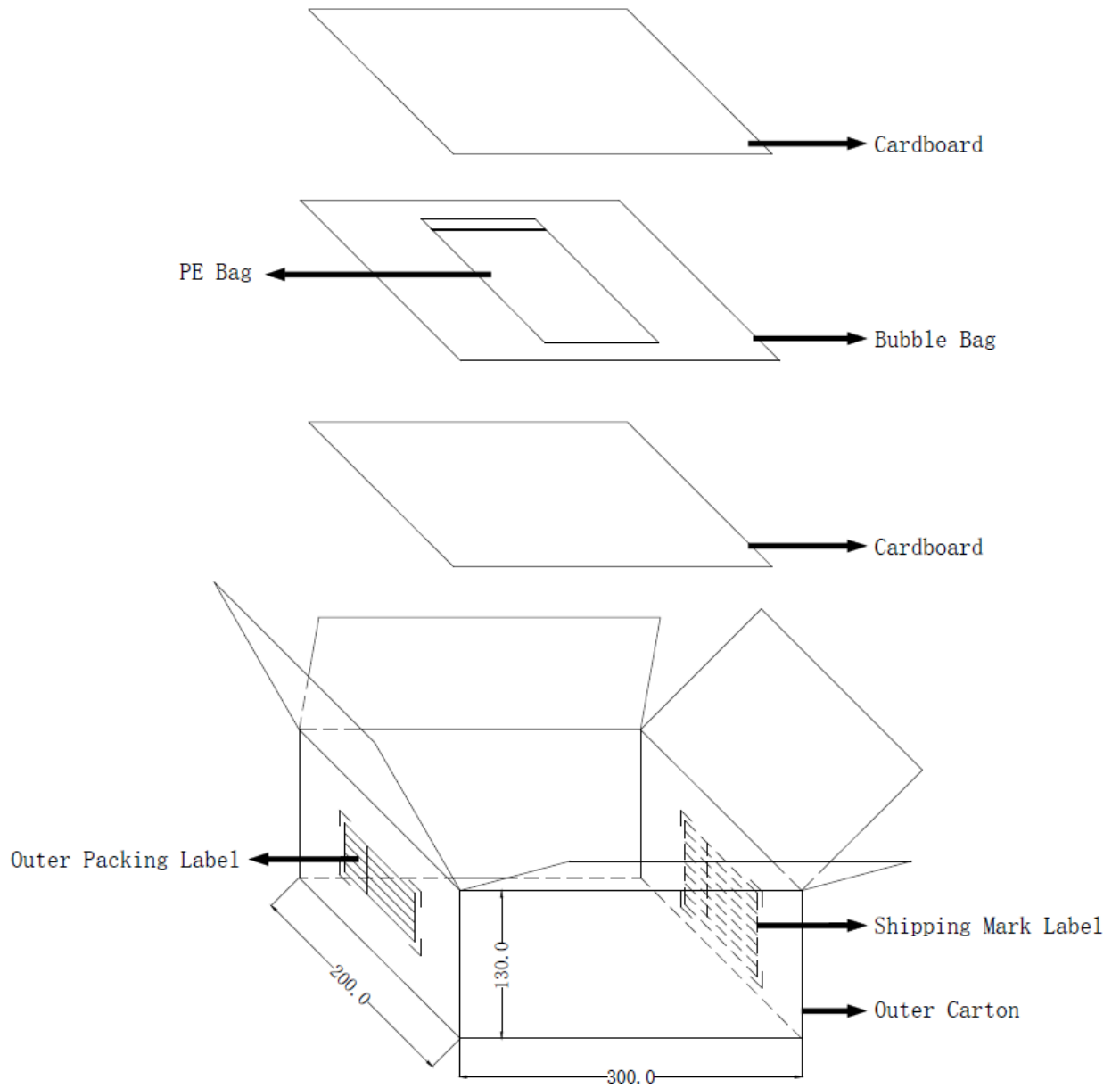
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10 pieces per PE Bag

200 pieces per Bubble Bag

2000 pieces per Outer Carton





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## Flexible PCB Antenna Series

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### **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.