

# LTE 4G Bands Flexible PCB Antenna

## SPECIFICATION



P/N: FPC-00LAI1A

### Antenna Features

#### Electrical

LTE (LB+MB+HB)

#### Environmental

Dim: 67.4mm\*58.4mm\*0.13mm

-50°C~85°C Thermal Resistance

RoHS, REACH Compliant

#### Installation

Double Sided Adhesive

Direct Stick on Device Enclosure

#### Application

Navigation System Supporting

Drone

Vehicle Navigation System

IoT Devices Navigation



**\*NVC LTE 4G Bands FPC Antenna\***

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## **1. Introduction**

# Flexible PCB Antenna Series

P/N: FPC-00LAI1A

NVC provides high quality ceramic patch antenna series for navigation system application. The ceramic patch antennas are easily installed into customer devices, through pin or SMT direct feed to exciting antenna to go high level and accurate satellites signals. Assist end user can get location located.

Such application, for example, drone/UAV application, the device needs accuracy location information in order to execute auto-pilot or return back to the point of departure. All these application, the device needs good satellites signals. NVC Patch series can offer high quality receiving satellites signals.

NVC provide different scenario 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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## 2. Specification

# Flexible PCB Antenna Series

P/N: FPC-00LAI1A

LTE 4G bands			
Band	LB	MB	HB
Frequency (MHz)	698~960	1710~2700	3400~3800
Technical Spec			
Peak Gain (dBi) *	0.76	3.89	3.6
Efficiency (%)*	>30	>56	>64
Polarization	Linear Polarization		
Impedance	50Ω		
MECHANICAL			
Dimension	67.4mm*58.4mm*0.13mm		
Material Content	Flexible PCB		
Coaxial Cable	φ 1.37mm Micro Coax., 56.66mm length, Fully Customizable		
Connector	IPEX MHFI		
Adhesive	3M467		
Weight	9.5g/1pcs		
Pulling Force	Minimum 2 KGF/cm2		
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.



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# Flexible PCB Antenna Series

P/N: FPC-00LAI1A

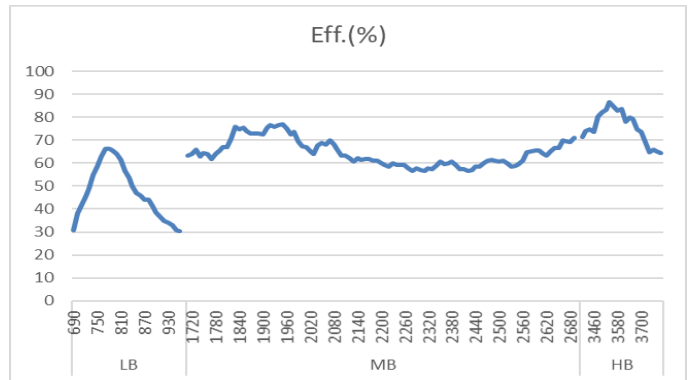
## 3. Antenna Characteristics

### 3.1. LTE 4G Bands Antenna

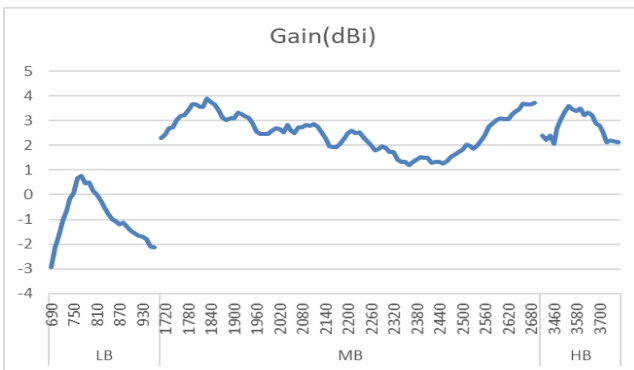
#### 3.1.1. Return Loss



#### 3.1.2. Efficiency



#### 3.1.3. Peak Gain



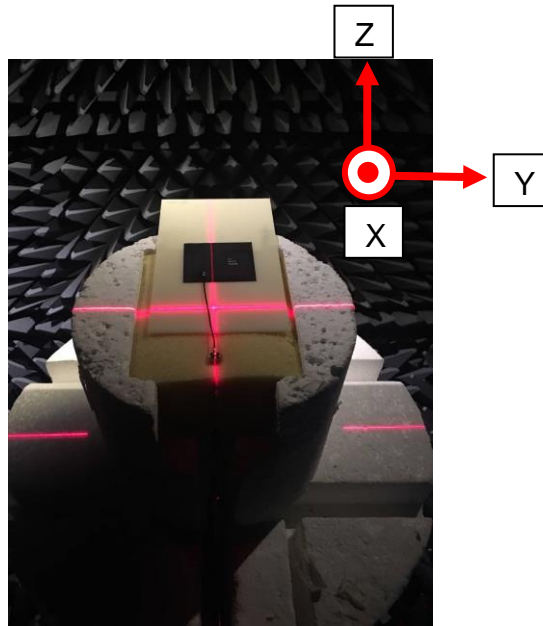


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## Flexible PCB Antenna Series

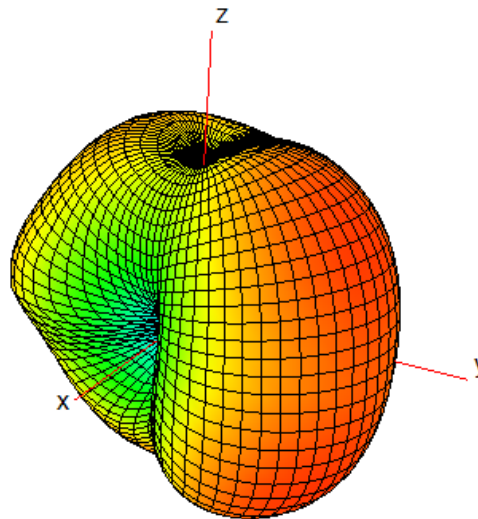
P/N: FPC-00LAI1A

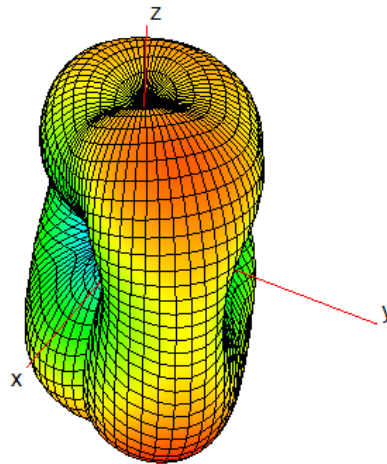
### 3.1.4. Antenna Measurement Setup & 3D Patterns



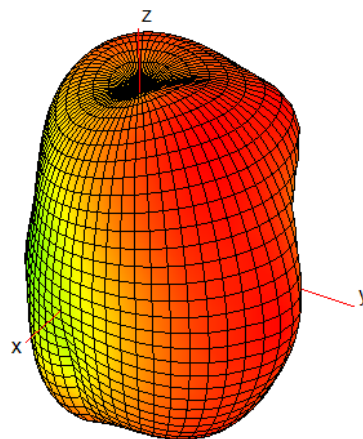
\*Testing set in NVC GTS2800 compatible Anechoic Chamber

**880MHZ**

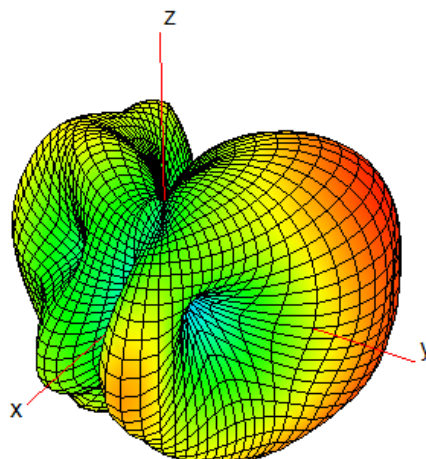


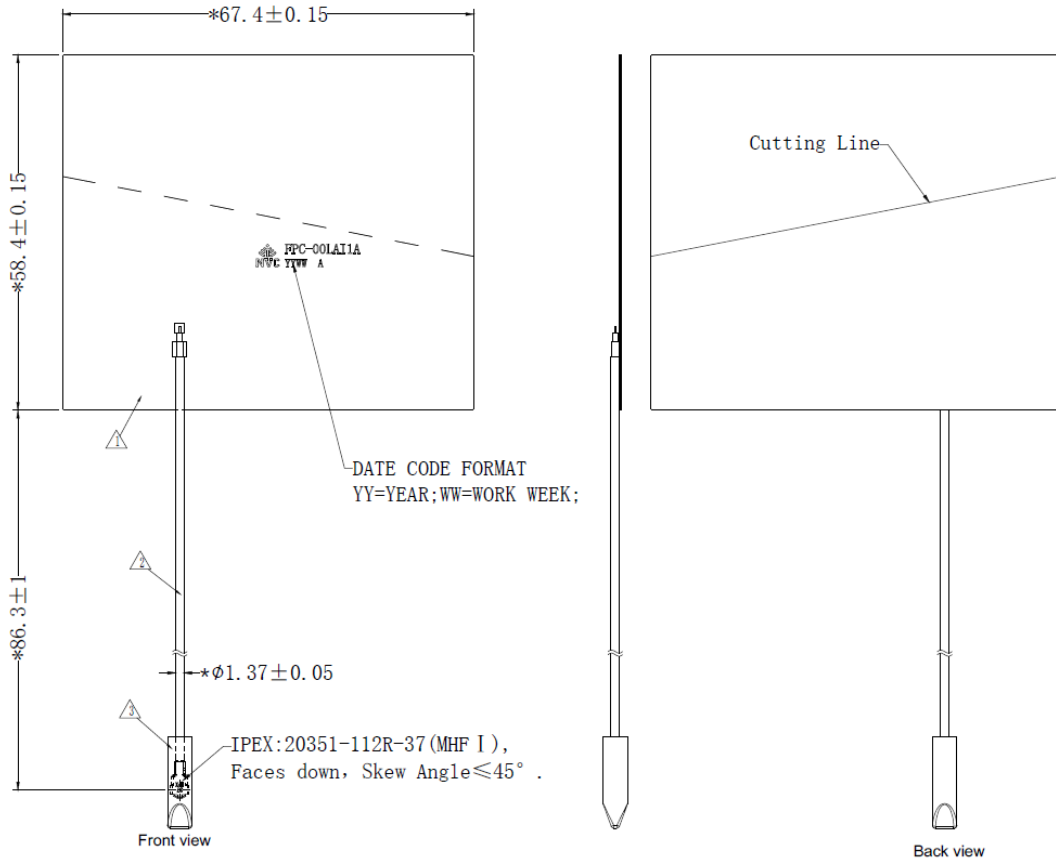


**2500MHZ**



**3600MHZ**

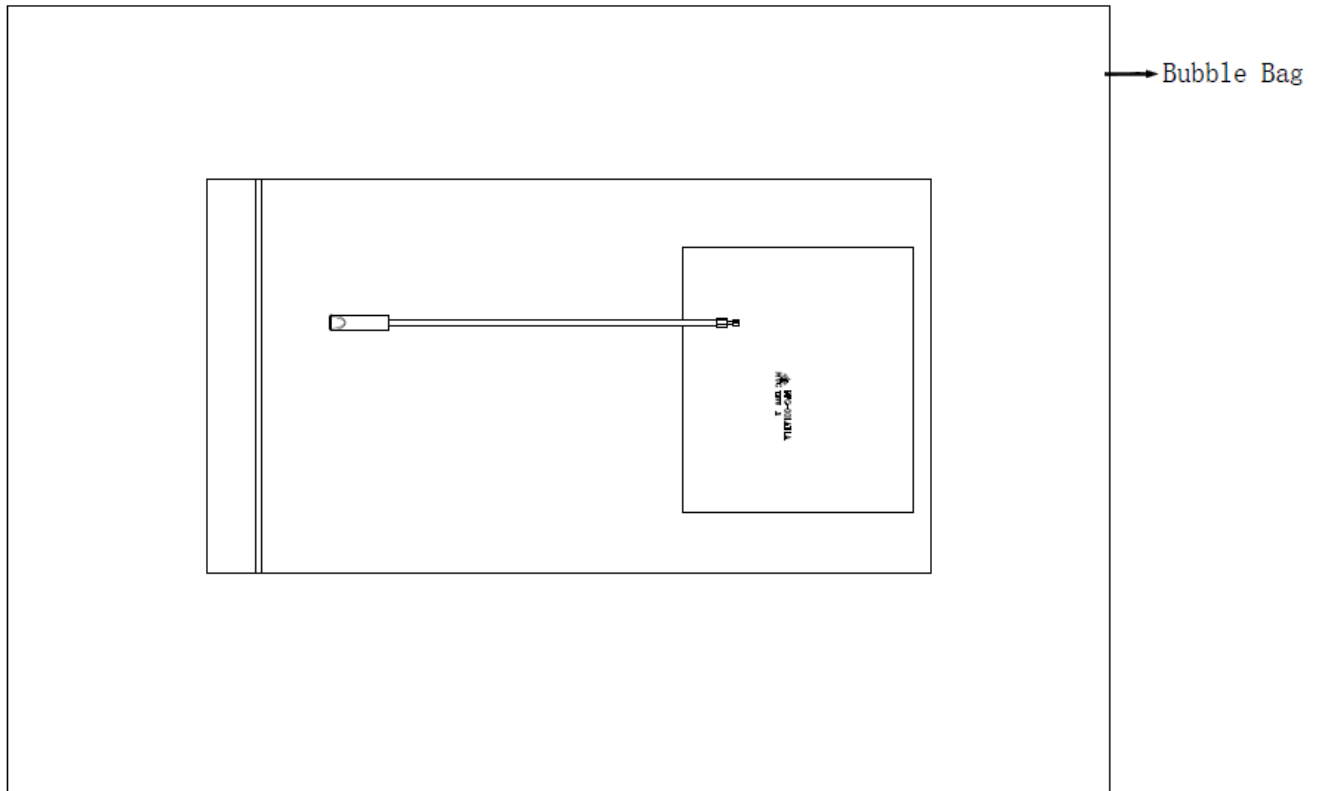
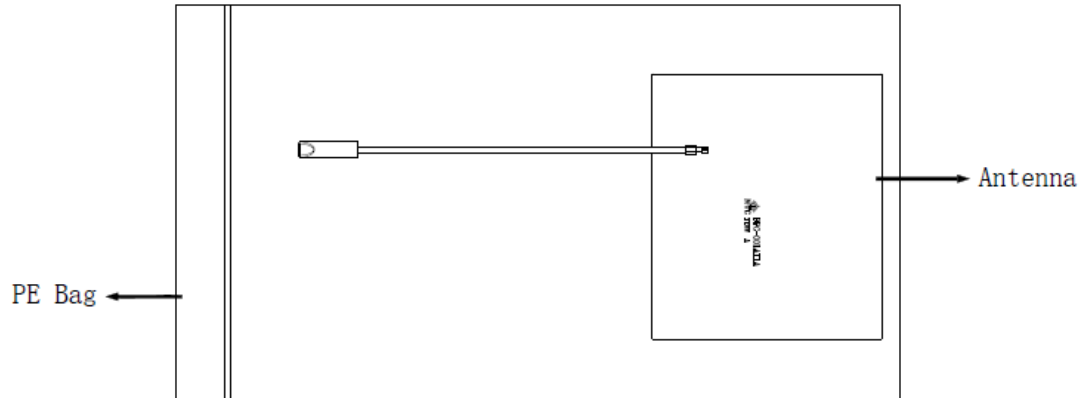




3	66-FPC-00WA10A01	RF plug protector: $\phi 3 * L15$	1
2	41-FPC-00LAI1A01	FPC-00LAI1A-Cable-Black- $\phi 1.37$ -IPEX1	1
1	40-FPC-00LAI1A01	FPC-00LAI1A-FPC-Black-PI	1
ITEM	Part NO.	Description	QTY

Unit: mm

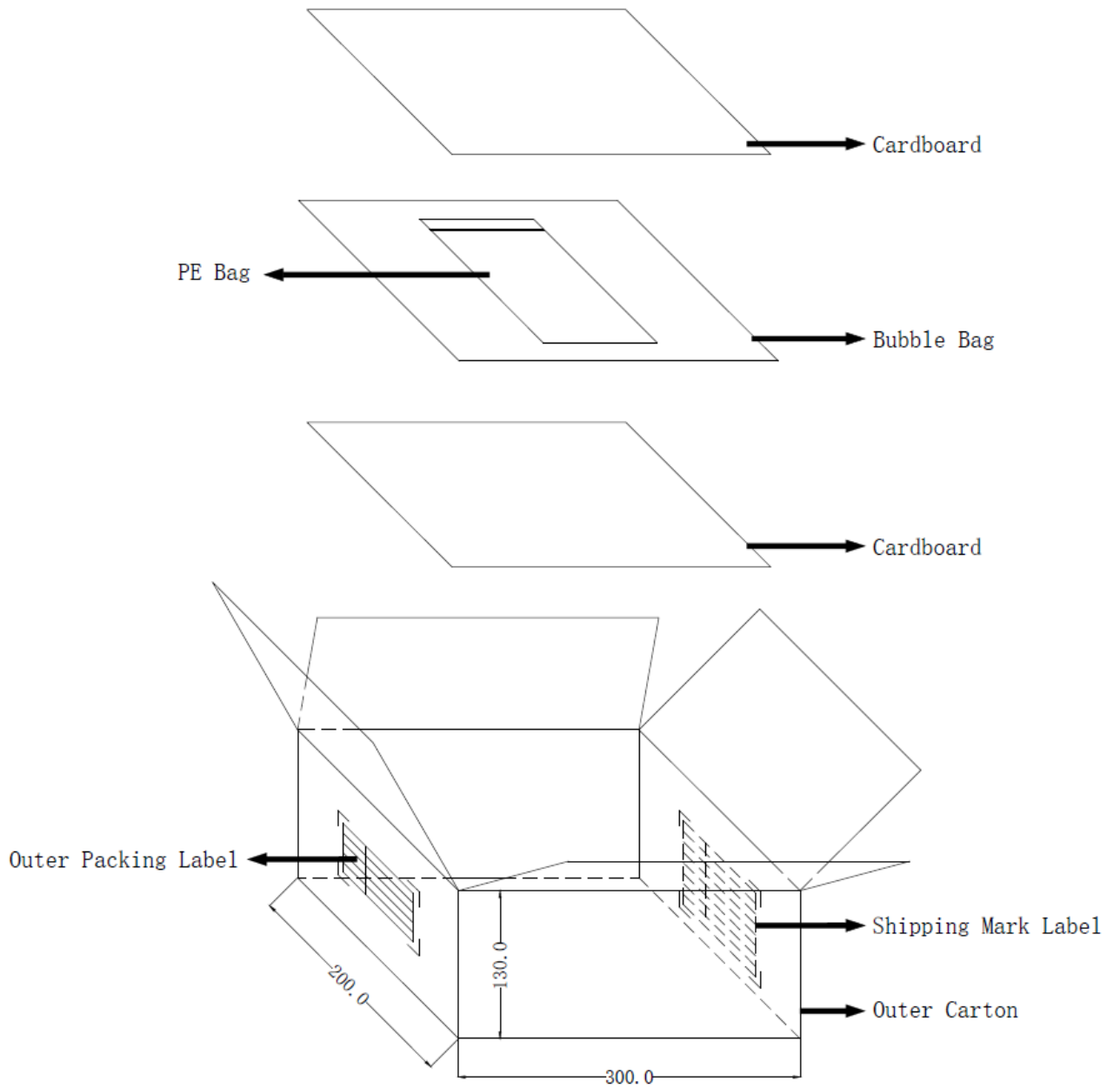




10 pieces per PE Bag

200 pieces per Bubble Bag

2000 pieces per Outer Carton





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## **6. Application Note**

Flexible PCB Antenna Series

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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.