

UWB Flexible PCB Antenna SPECIFICATION



P/N: FPC-00UA10A



Flexible PCB Antenna Series

P/N: FPC-00UAI0A

Antenna Features

Electrical

UWB (3-10GHz)

Installation

Double Sided Adhesive

Direct Stick on Device Enclosure

Environmental

Dim: 36mm*24.4mm*0.13mm

-50°C~85°C Thermal Resistance

RoHS, REACH Compliant

Application

Automotive Sensing

Indoor Network Connectivity

Localization

Identification



NVC UWB Bands FPC Antenna

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1. Introduction

Flexible PCB Antenna Series

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NVC provides high quality FPCB ultra wideband series for various applications such as high data-rate communications, Radar and Sensing, localization etc. The flexible PCB antennas including cable and connector, can be easily installed on the housing surfaces by adhesive. By just simple "Peel and Attach", it will assist end users to get seamless ultra wideband connections covering from 3-10GHz.

NVC provides different scenario options to be selected, please read the technical specifications to choose the best suitable solution for you. Or, Even better, we can customize the antenna completely based on your requirements. Please contact local sales for more info and support.



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2. Specification

Flexible PCB Antenna Series

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UWB bands	
Band	UWB
Frequency (GHz)	3~10 GHz
Technical Spec	
Peak Gain (dBi)	5
Efficiency (%)	>50
Polarization	Linear Polarization
Impedance	50Ω
MECHANICAL	
Dimension	36mm*24.4mm*0.13mm
Material Content	Flexible PCB
Coaxial Cable	φ 1.37mm Micro Coax., 87.3mm length, Fully Customizable
Connector	IPEX MHFI
Adhesive	3M467
Weight	2.4g/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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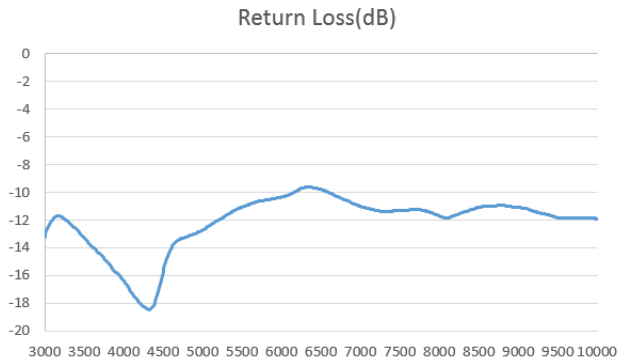
Flexible PCB Antenna Series

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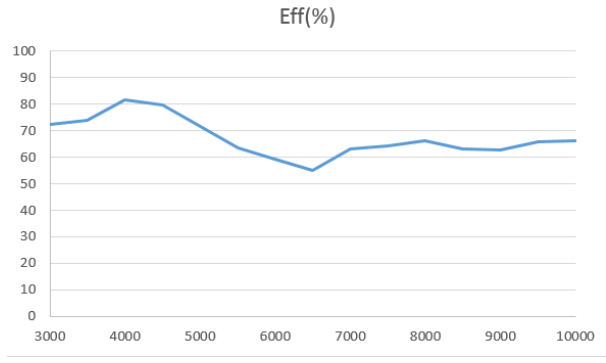
3. Antenna Characteristics

3.1. UWB Bands Antenna

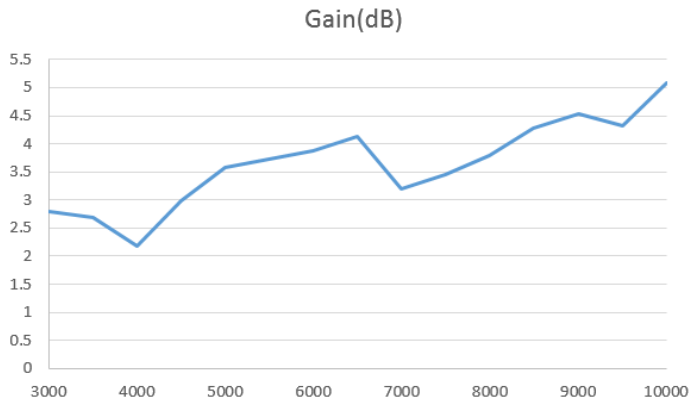
3.1.1. Return Loss



3.1.2. Efficiency



3.1.3. Peak Gain



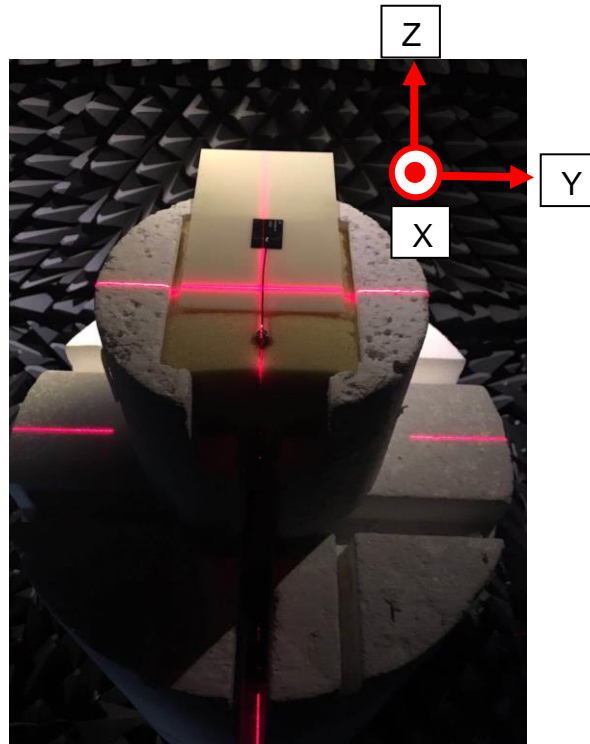


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3.1.4. Antenna Measurement Setup & 3D Patterns

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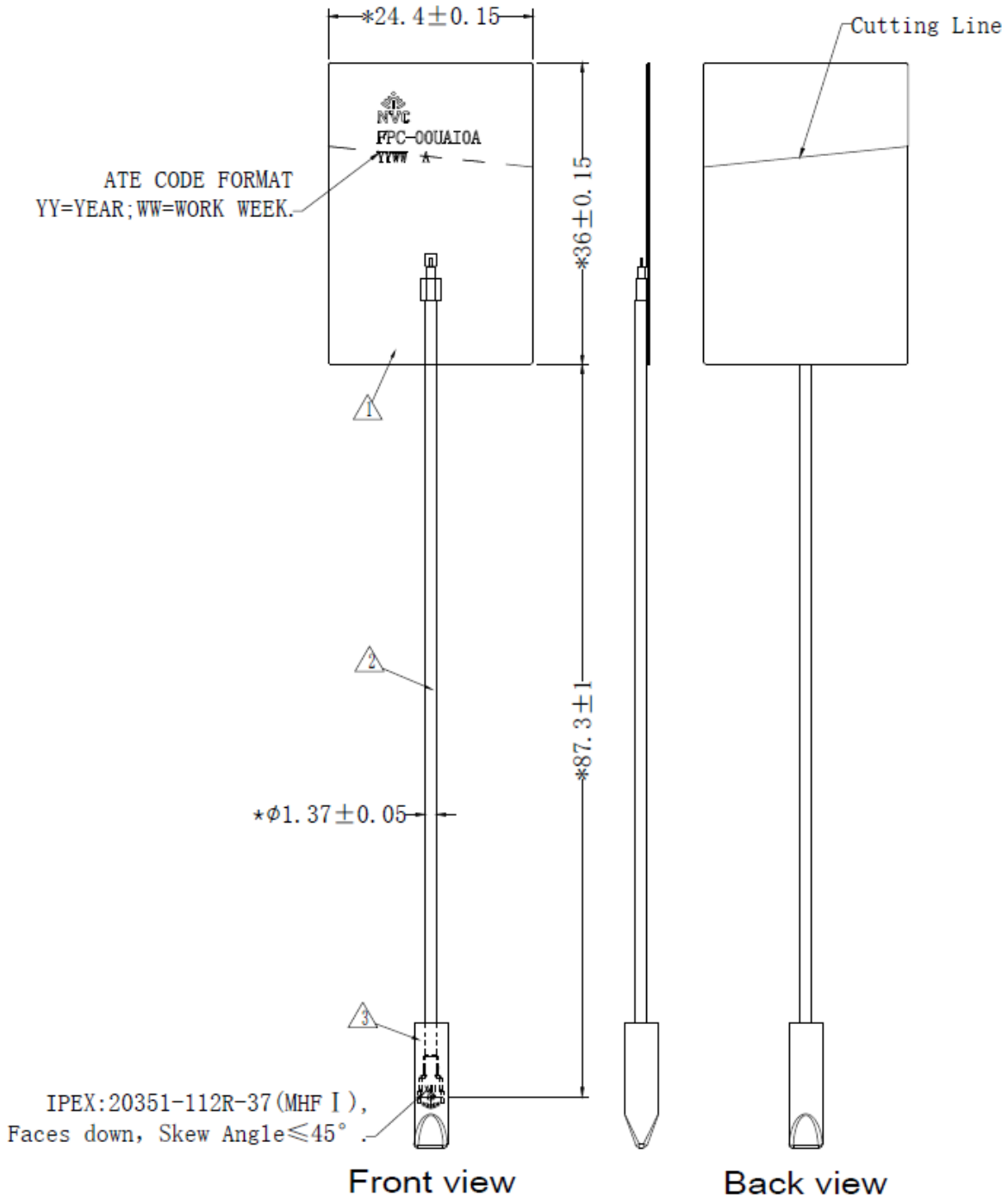
Testing set in NVC GTS2800 compatible Anechoic Chamber



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4. Drawing

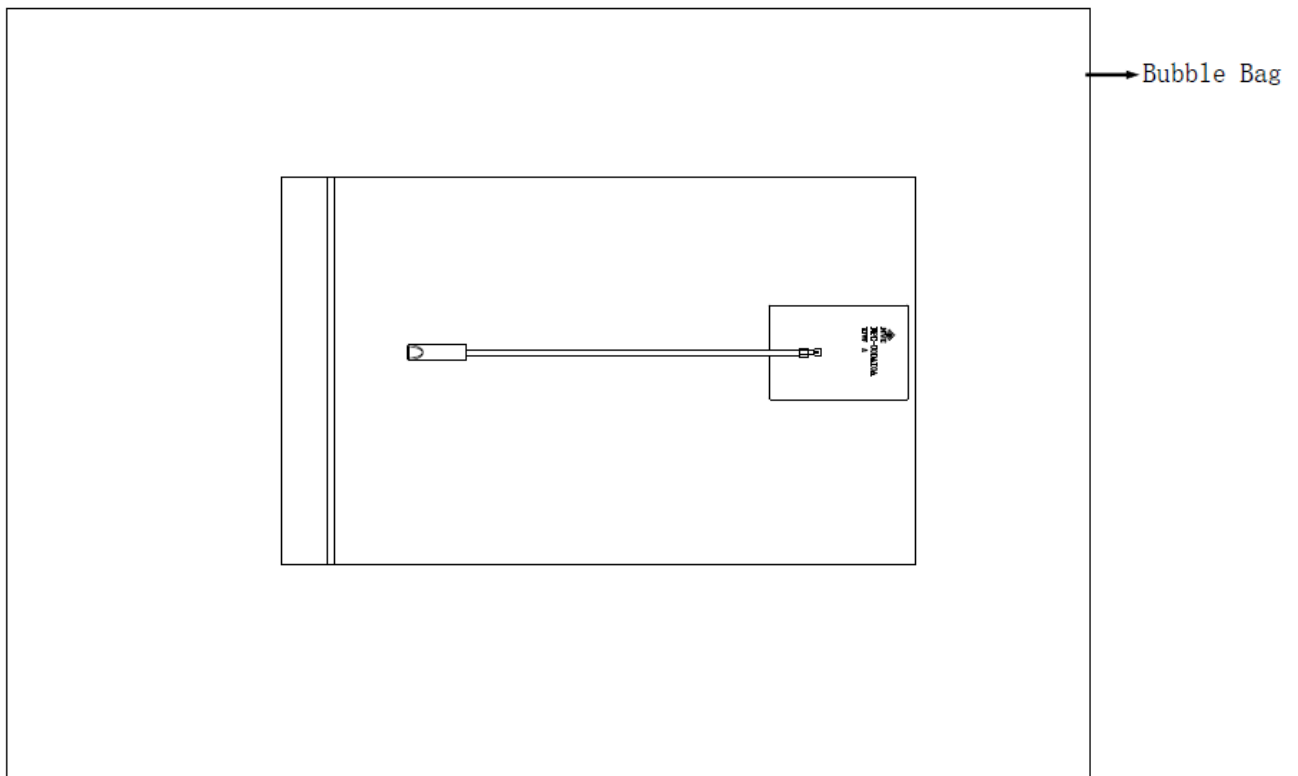
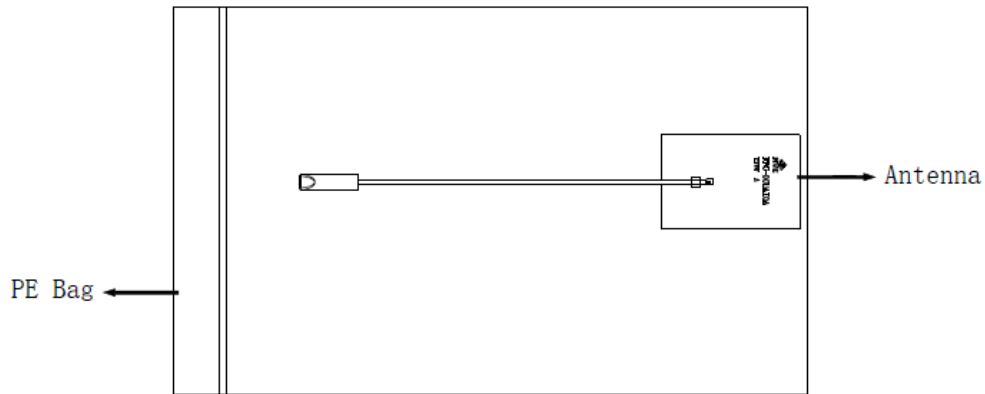
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3	66-FPC-00WAI0A01	RF plug protector: Φ3*L15	1
2	41-FPC-00UAI0A01	FPC-00UAI0A-Cable-Black-Φ1.37-IPEX1	1
1	40-FPC-00UAI0A01	FPC-00UAI0A-FPC-Black-PI	1
ITEM	Part NO.	Description	QTY

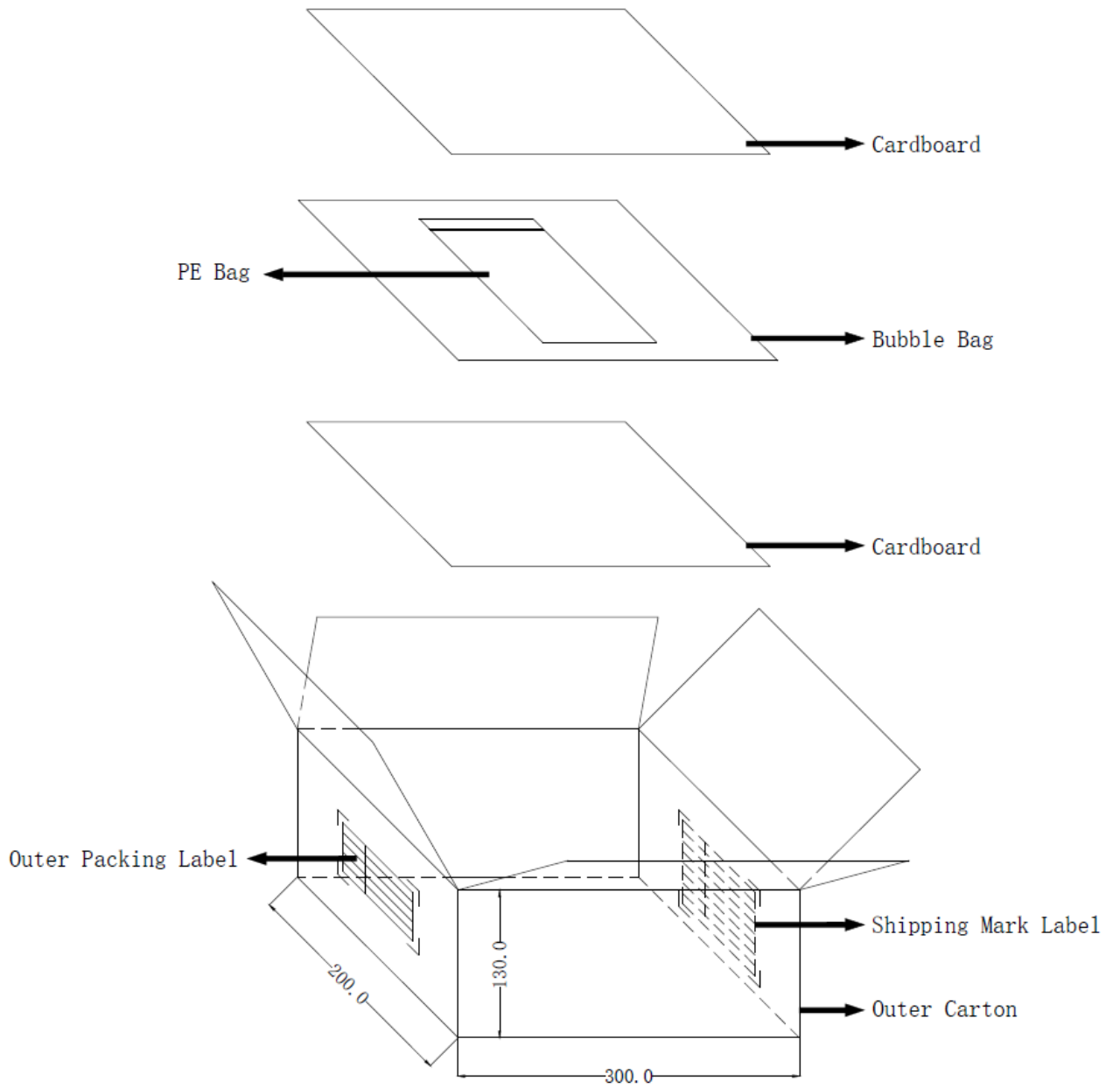
Unit: mm



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.