

# Advantech AE Technical Sharing Documentation

<b>Date</b>	2019 / 08 / 29	<b>SR#</b>	1-3897527791
<b>Category</b>	■FAQ □ SOP	<b>Related OS</b>	Windows 10/ Windows 7
<b>Abstract</b>	How to test the GPIO function		
<b>Keyword</b>	GPIO, AdvGPIO		
<b>Related Product</b>	UNO-1372G-J		

■ **Problem Description:**

How to check the GPIO function is work. Basely this function control by the EC chip which means it needs to install the [advGPIO](#) driver. After install the driver, the path “C:\Program Files (x86)\Advantech\GPIO\Examples” will show the sample code and test utility ADVGPIOTool.exe. It can help you confirm the base function of GPIO. Some basic concepts about how to wiring of GPIO will also share in this FAQ.

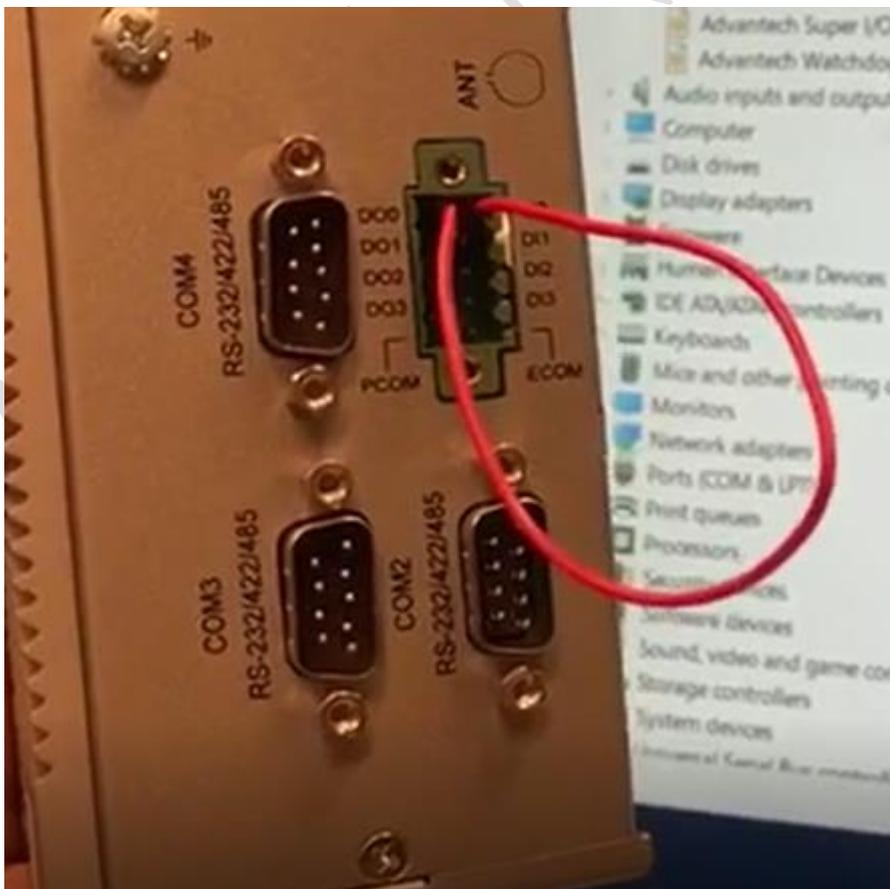
■ **Brief Solution - Step by Step:**

**I、 Confirm the base function**

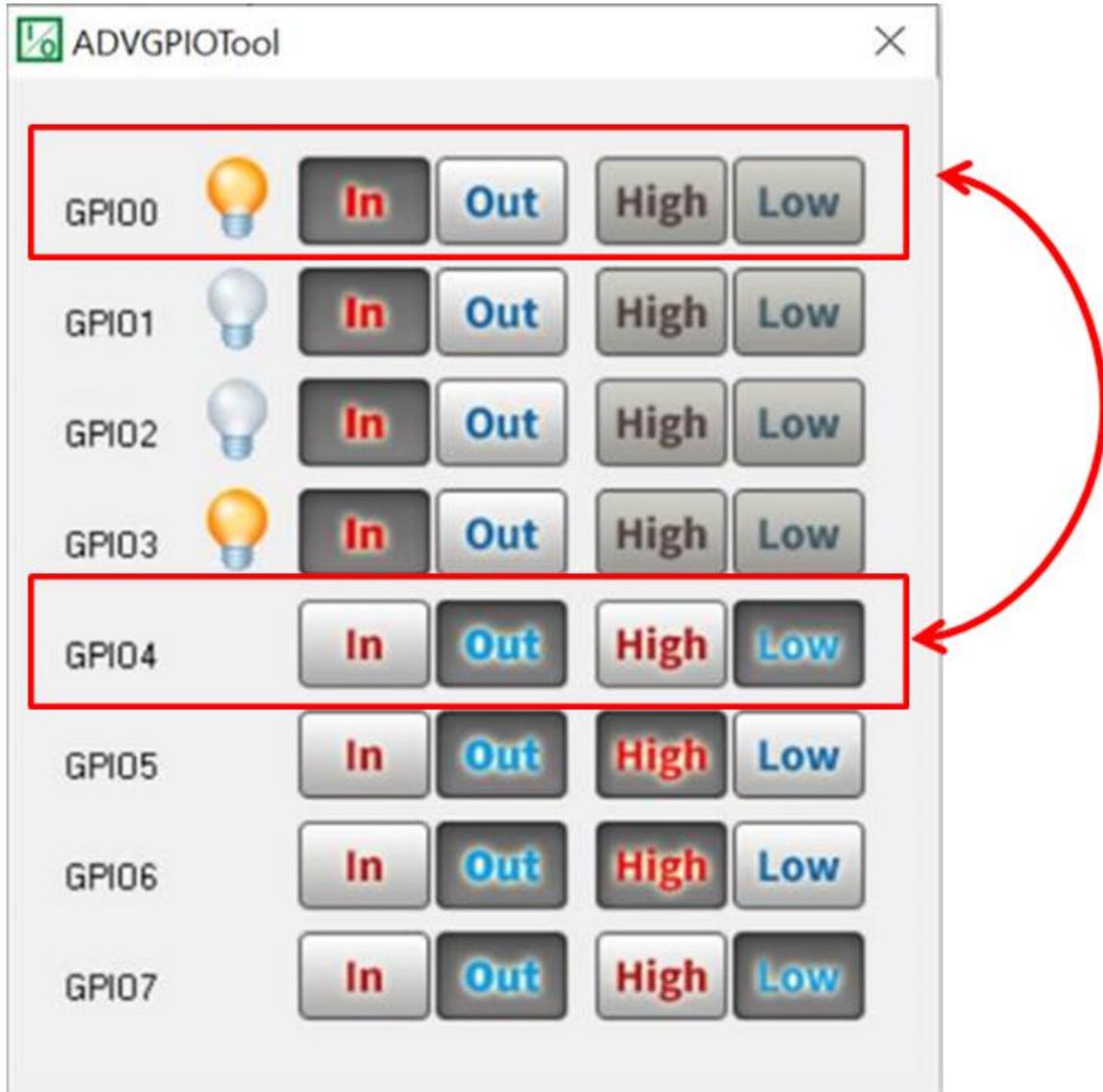
**A simple experiment was performed for your reference. We set the status of output pin and the connected input pin will change its status as well.**

**Here are the steps:**

1. Connected the DO0 to DI0 by the wires.



2. Open the ADVGPIOTool and set the GPIO4 as low. The GPIO0 will light up.



**II · Basic concepts about how to properly connect devices to GPIO**

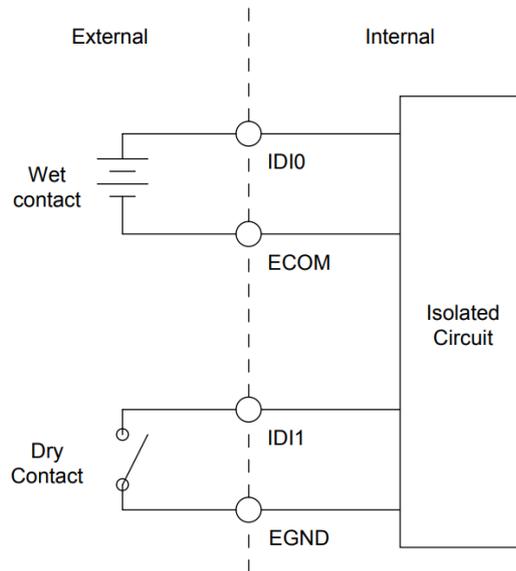
The table below is describing the pin define:

Description of PIN Use	
<b>ECOM / EGND</b>	<b>External common of IDI / External ground</b>
<b>PCOM</b>	<b>Freewheeling common diode for IDO</b>
<b>DI</b>	<b>digital input</b>
<b>DO</b>	<b>digital output</b>

## 1. Digital Input:

Every input channels share one external common. (ECOM/EGND). The following figure shows how to connect an external input source to the card's inputs. Dry contact is the synonym of volt free. And wet contact is including a volt.

Note: UNO-1372G-J Wet Contact: Configure SW6 to 1, 3. Dry Contact: Configure SW7 to 2, 4.



## 2. Digital Output

Digital output power come from external, the range of the input voltage, please reference the datasheet. You can ignore PCOM because it only requires when you are connecting a power relay. PCOM is for protecting relay from burn out (if used), not ground of DO.

