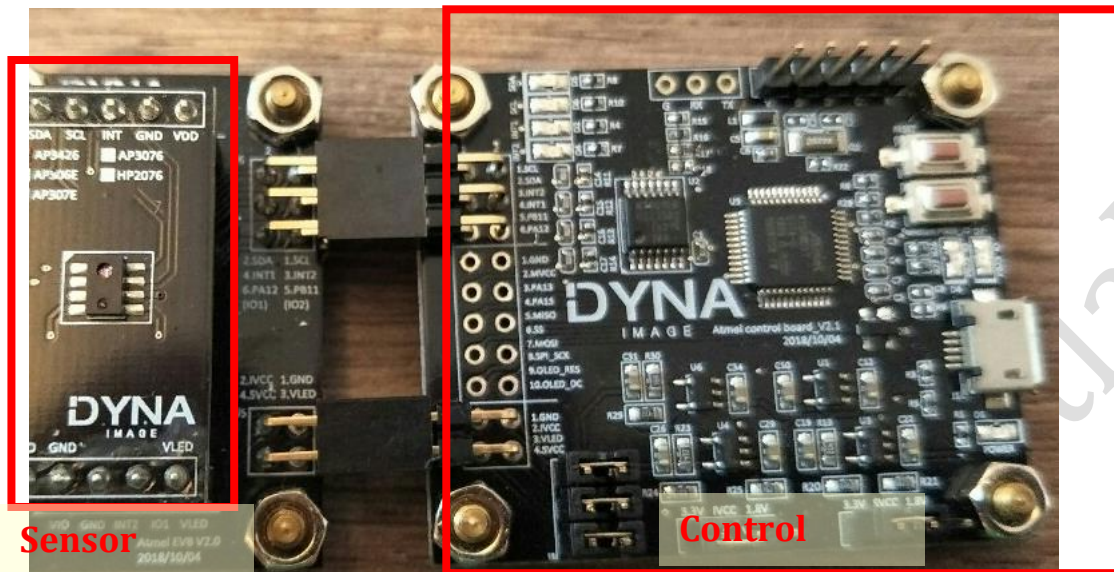


# AP3426

## Demo Program User Guide

| VERSION | DATE      | CONTENT           | AUTHOR     |
|---------|-----------|-------------------|------------|
| 1.0     | 2021/10/6 | Document creation | Brian Chiu |
|         |           |                   |            |
|         |           |                   |            |
|         |           |                   |            |
|         |           |                   |            |
|         |           |                   |            |

## Hardware Setup



Micro USB  
Connector

Sensor Board

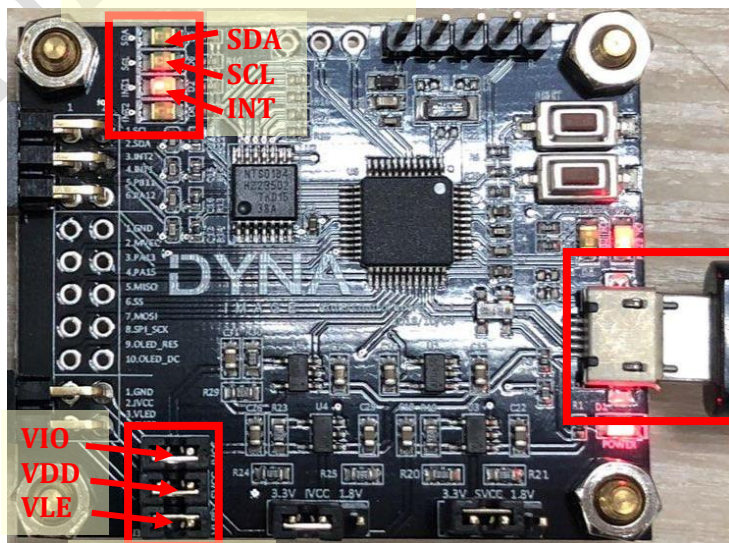
SDA SCL INT GND



VIO GND VLED

Control Board

Debug LED, Active



Micro USB  
Connector

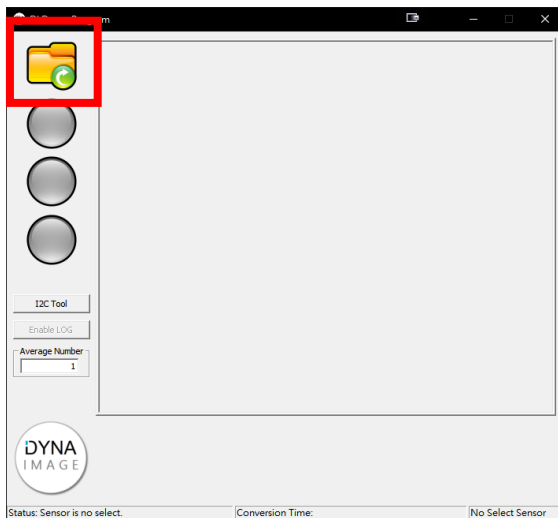
Power

## Software Setup

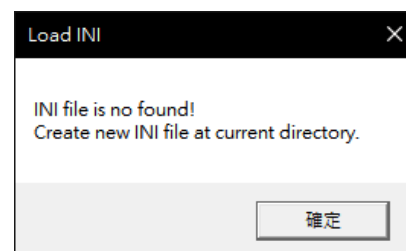
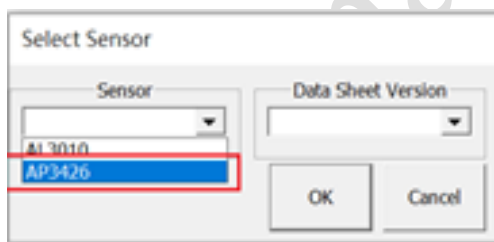
1. Open DI\_Demo\_Program.exe



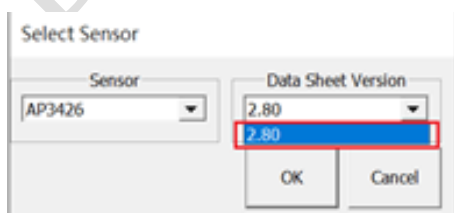
2. Open sensor selects windows



3. Select AP3426, then press OK. If it's your first use, you will get a "Load INI" message and then press OK.



4. After first use, select Data Sheet Version-2.8.0 when you load AP3426\_v2.80.ini file



The user interface of Sys Config Tab is shown as follow:

**Select Sensor**

**Save setting to .ini file**

**Pause**

**Reload default value**

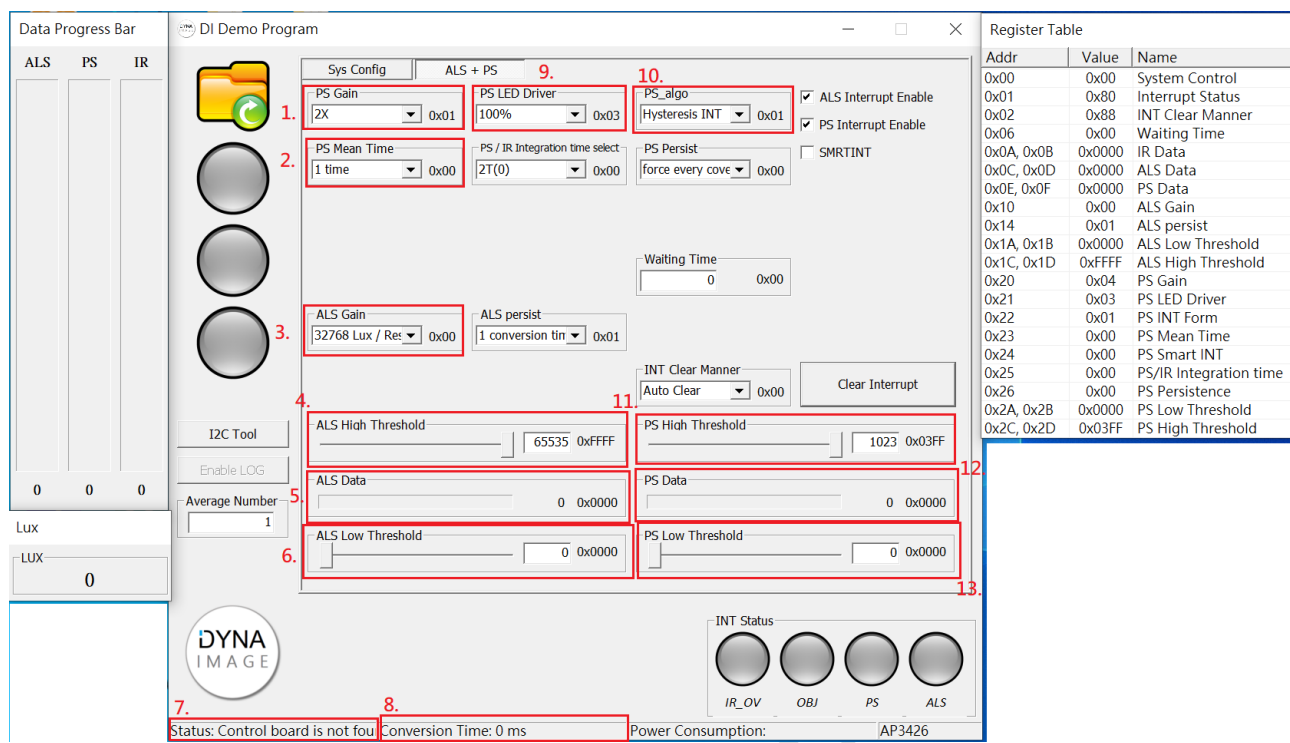
**I2C Tool**

**Log Data**

**Change Average Number**

| Addr       | Value  | Name                   |
|------------|--------|------------------------|
| 0x00       | 0x00   | System Control         |
| 0x01       | 0x80   | Interrupt Status       |
| 0x02       | 0x88   | INT Clear Manner       |
| 0x06       | 0x00   | Waiting Time           |
| 0x0A, 0x0B | 0x0000 | IR Data                |
| 0x0C, 0x0D | 0x0000 | ALS Data               |
| 0x0E, 0x0F | 0x0000 | PS Data                |
| 0x10       | 0x00   | ALS Gain               |
| 0x14       | 0x01   | ALS persist            |
| 0x1A, 0x1B | 0x0000 | ALS Low Threshold      |
| 0x1C, 0x1D | 0xFFFF | ALS High Threshold     |
| 0x20       | 0x04   | PS Gain                |
| 0x21       | 0x03   | PS LED Driver          |
| 0x22       | 0x01   | PS INT Form            |
| 0x23       | 0x00   | PS Mean Time           |
| 0x24       | 0x00   | PS Smart INT           |
| 0x25       | 0x00   | PS/IR Integration time |
| 0x26       | 0x00   | PS Persistence         |
| 0x2A, 0x2B | 0x0000 | PS Low Threshold       |
| 0x2C, 0x2D | 0x03FF | PS High Threshold      |

The user interface of ALS+PS Tab is shown as follow:



1. PS Gain: This Bit could extend the detection range of device.
2. PS Mean Time: Internal average function.
3. ALS Gain: This Bit could extend the range and resolution of device.
4. ALS High Threshold: Set the interrupt of Threshold when ALS Data value is higher than Threshold.
5. ALS Data: Display the actual ADC value.
6. ALS Low Threshold: Set the interrupt of Threshold when ALS Data value is lower than Threshold.
7. Status: It can detect the Control Board ready or not.
8. Conversion Time: This value depends on "PS Mean Time".
9. PS LED Driver: It can select the peak current of LED Driver.
10. PS\_algo: Suggest to select "Hysteresis INT"
11. PS High Threshold: Set the interrupt of Threshold when PS Data value is higher than Threshold.
12. PS Data: Display the actual ADC value.
13. PS Low Threshold: Set the interrupt of Threshold when PS Data value is lower than Threshold

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