

AIOT-MSSP01

Mini SSP Vending Control Board

User's Manual 2nd Ed

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Packing List

Before setting up your product, please make sure the following items have been shipped:

Item	Quantity
● AIOT-MSSP01	1
● User's Manual (in pdf)	1

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

About this Document

This User's Manual contains all the essential information, such as detailed descriptions and explanations on the product's hardware and software features (if any), its specifications, dimensions, jumper/connector settings/definitions, and driver installation instructions (if any), to facilitate users in setting up their product.

Users may refer to the AAEON.com for the latest version of this document.

Safety Precautions

Please read the following safety instructions carefully. It is advised that you keep this manual for future references

1. All cautions and warnings on the device should be noted.
2. Make sure the power source matches the power rating of the device.
3. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
4. Always completely disconnect the power before working on the system's hardware.
5. No connections should be made when the system is powered as a sudden rush of power may damage sensitive electronic components.
6. If the device is not to be used for a long time, disconnect it from the power supply to avoid damage by transient over-voltage.
7. Always disconnect this device from any AC supply before cleaning.
8. While cleaning, use a damp cloth instead of liquid or spray detergents.
9. Make sure the device is installed near a power outlet and is easily accessible.
10. Keep this device away from humidity.
11. Place the device on a solid surface during installation to prevent falls
12. Do not cover the openings on the device to ensure optimal heat dissipation.
13. Watch out for high temperatures when the system is running.
14. Do not touch the heat sink or heat spreader when the system is running
15. Never pour any liquid into the openings. This could cause fire or electric shock.
16. As most electronic components are sensitive to static electrical charge, be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and contain all electronic components in any static-shielded containers.

17. If any of the following situations arises, please the contact our service personnel:
 - i. Damaged power cord or plug
 - ii. Liquid intrusion to the device
 - iii. Exposure to moisture
 - iv. Device is not working as expected or in a manner as described in this manual
 - v. The device is dropped or damaged
 - vi. Any obvious signs of damage displayed on the device
18. **DO NOT LEAVE THIS DEVICE IN AN UNCONTROLLED ENVIRONMENT WITH TEMPERATURES BEYOND THE DEVICE'S PERMITTED STORAGE TEMPERATURES (SEE CHAPTER 1) TO PREVENT DAMAGE.**

FCC Statement

Warning!



This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

Caution:

There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions and your local government's recycling or disposal directives.

Attention:

Il y a un risque d'explosion si la batterie est remplacée de façon incorrecte. Ne la remplacer qu'avec le même modèle ou équivalent recommandé par le constructeur. Recycler les batteries usées en accord avec les instructions du fabricant et les directives gouvernementales de recyclage.

China RoHS Requirements (CN)

产品中有毒有害物质或元素名称及含量

AAEON 主板/子板/背板

QQ4-381 Rev.A2

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板 及其电子组件	×	○	○	○	○	○
外部信号 连接器及线材	×	○	○	○	○	○
本表格依据 SJ/T 11364 的规定编制。 ○：表示该有毒有害物质在该部件所有均质材料中的含量均在GB/T 26572标准规定的限量要求以下。 ×：表示该有害物质的某一均质材料超出了GB/T 26572的限量要求, 然而该部件仍符合欧盟指令2011/65/EU 的规范。 环保使用期限(EFUP (Environmental Friendly Use Period)) : 10年 备注：此产品所标示之环保使用期限，系指在一般正常使用状况下。						

China RoHS Requirement (EN)

Name and content of hazardous substances in product

AAEON Main Board/Daughter Board/Backplane

QO4-381 Rev.A2

Part Name	Hazardous Substances					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
PCB Assemblies	×	○	○	○	○	○
Connector and Cable	×	○	○	○	○	○

The table is prepared in accordance with the provisions of SJ/T 11364.

○: Indicates that said hazardous substance contained in all of the homogenous materials for this product is below the limit requirement of GB/T 26572.

×: Indicates that said hazardous substance contained in at least one of the homogenous materials used for this part is above the limit requirement of GB/T 26572.

But this product still be compliance with 2011/65/EU Directive (allowed with 2011/65/EU Annex III of RoHS exemption with number 6(c),7(a),7(c)-1).

EFUP (Environment Friendly Use Period) value: 10 years

Notes: This product defined period of use is under normal condition.

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Chapter 1

Product Specifications

1.1 Specifications

External Connector

- USB USB 2.0 type A connector x 5 (via USB HUB)
Micro USB 2.0 type B connector x 1 (USB HUB Host)

Internal Connector

- MDB MDB x 1
- 1-Wire 1-WIRE x 1
- DEX DEX x 1
- Protocol A Protocol A (EXE) x 1
- Keypad 8 Bit Keypad x 1
- LCD LCD x 1
- ADC 4-channel ADC x 1
- Relay GPIO 4-channel Relay GPIO for 12V & 5V by switch x 1
- GPIO 16 Bit GPIO x 2
- 24V GPI 8 Bit 24V GPI x 1
- 24V Analog voltage sense 24V Analog voltage sense x 1
- Power input 24VAC/DC Power Input
- Motor Switch Select motor 24Vdc or 12Vdc switch (Motor supports GPIO, DC, PWM type) x 1
- Full bridge motor Full bridge motor control x 5
- Low side motor Low side motor control x 16
- Expansion header 2* 20 PIN header x 2

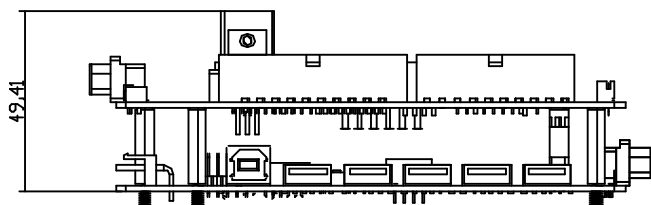
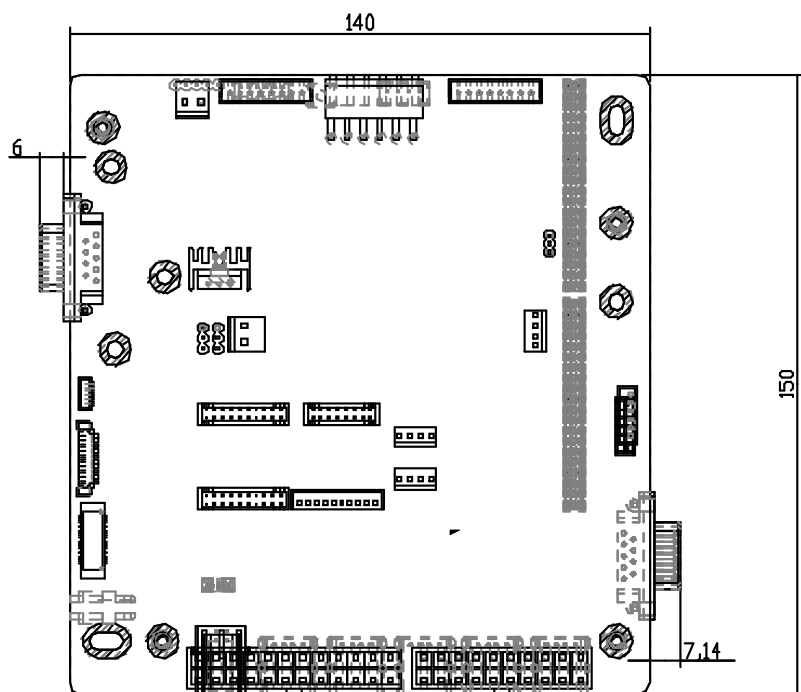
Others

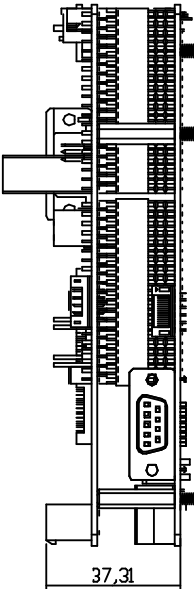
- Form Factor 150 mm x 140 mm
- Power Source 24V AC @ 50Hz, 24vDC
- Operating Temperature 0°C ~ 60°C
- Operating Humidity 0% ~ 90% relative humidity, non-condensing
- Certification CE, FCC

Chapter 2

Hardware Information

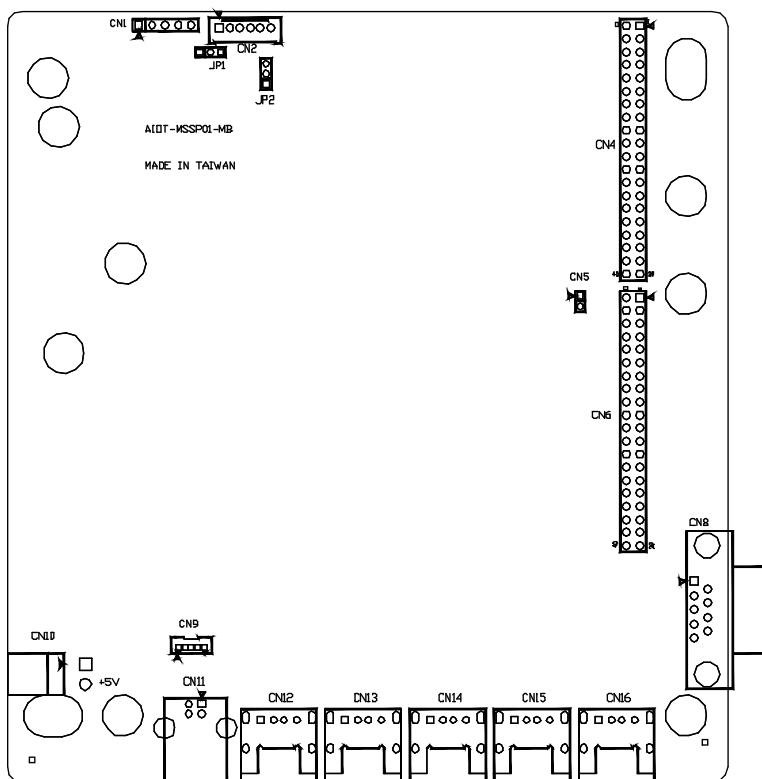
2.1 Dimensions



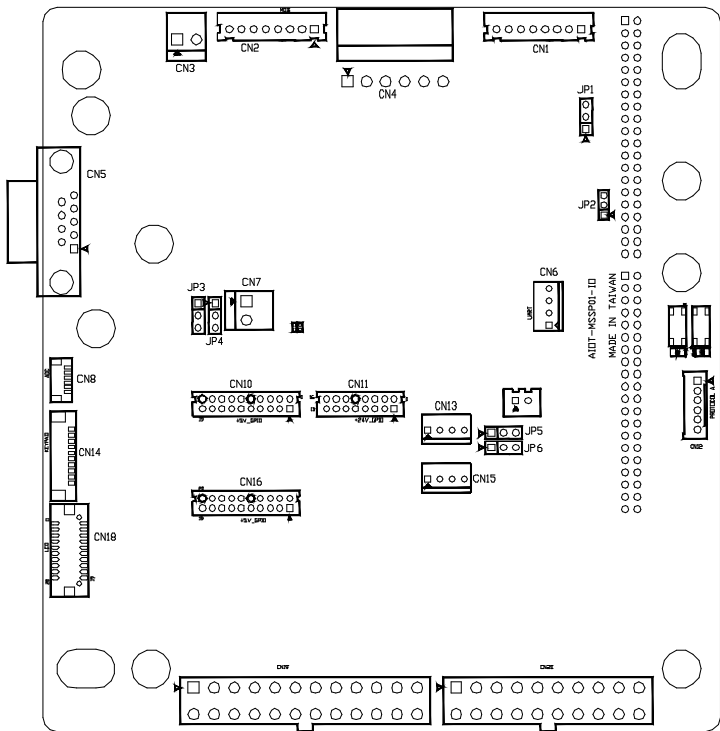


2.2 Jumpers and Connectors

2.2.1 Main board layout



2.2.1 I/O board layout



2.3 List of Connectors

Please refer to the table below for all of the board's connectors that you can configure for your application

2.3.1 Mainboard Connector Index

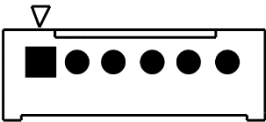
Reference	Function	Connector Type
CN1	MCU-ICSP	(TF)PIN HEADER.5*1P:180D.(M).2.54mm.DIP
CN2	Vending detect	(TF)WAFER BOX.6P:180D(M).DIP.2.0mm.w/LOCK
CN4 CN6	IO BOARD CONNECTORS	(TF)PIN HEADER.20*2P:180D(M).DIP.2.54mm
CN8	RS232	(TF)D-SUB CONNECTOR.9P:90D
CN9	Internal USB2.0	(TF)WAFER BOX.5P:180D(M).DIP.1.25mm
CN10	+5V output	(TF)WAFER.2P:180D(M).3.96mm.W/LOCK
CN12 CN13	External	(TF)USB2.0 Connector.4P:90D(F).DIP
CN14 CN15	USB2.0	
CN16		

2.3.1.1 MCU-ICSP (CN1)

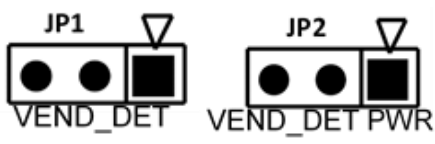


Pin	Signal Description	Pin	Signal Description
1	MCLR#	2	+3.3V
3	GND	4	PGED1
5	PGED1		

2.3.1.2 Vending Detect (CN2)

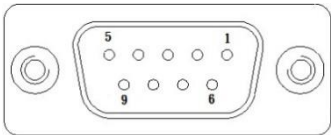


Pin	Signal Description	Pin	Signal Description
1	VEND_DET_IN	2	GND
3	VEND_DET_ALARM	4	NC
5	GND	6	VEND_DETECT_VCC



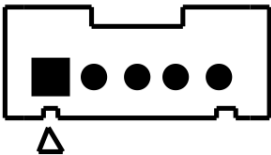
Vending Detection /Vending Detection Power		
1-2	MVC600	Default
2-3	CST539	

2.3.1.3 RS-232 (CN8)



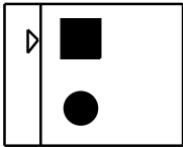
Pin	Signal Description	Pin	Signal Description
1	N/A	2	RS232_RXD
3	RS232_TXD	4	N/A
5	GND	6	N/A
7	N/A	8	N/A
9	N/A		

2.3.1.4 USB2.0 (CN9)



Pin	Signal Description	Pin	Signal Description
1	5V	2	D-
3	D+	4	GND
5	GND		

2.3.1.5 5V supply (CN10)



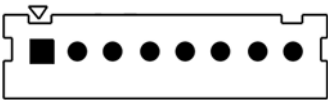
Pin	Signal Description	Pin	Signal Description
1	5V	2	GBD

2.3.2 I/O board Connector Index

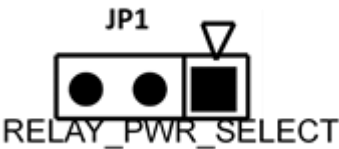
Reference	Function	Connector Type
CN1	Relay GPIO	(TF)WAFER BOX.8P:180D(M).DIP2.5mm.W/LOCK
CN2	MDB	(TF)WAFER BOX.8P:180D(M).DIP2.5mm.W/LOCK
CN3	+12V output	(TF)WAFER.2P:180D(M).3.96mm.W/LOCK
CN4	POWER INPUT	(TF) WAFER.6*1P:90D.(M).3.96mm.w/ Lock
CN5	RS232	(TF)D-SUB CONNECTOR.9P:90D
CN6	UART	(TF)WAFER.4P:180D.(M).2.5mm.W/LOCK POWER DIP
CN7	+24V output	(TF)WAFER.2P:180D(M).3.96mm.W/LOCK
CN8	ADC	(TF)Wafer Box.6P:180D.(M).SMD.1.0mm.w/ CAP
CN9	24V ANALOG INPUT	(TF)WAFER BOX.2P:180D.(M).2.5mm.W/LOCK DIP
CN10 CN16	16 Bit GPIO	(TF)WAFER BOX.10*2P:180D.(M).DIP2.0mm.W/LOCK
CN11	24V VENDING INPUT	(TF)WAFER BOX.8*2P:180D.(M).DIP2.0mm.W/LOCK
CN12	PROTOCOL A	(TF)WAFER BOX.6P:180D(M).DIP2.0mm.w/LOCK
CN13	DEX INTERFACE	(TF)WAFER.4P:180D.(M).2.5mm.W/LOCK POWER DIP
CN14	Keypad	(TF)WAFER BOX.10P:180D(M).SMD.1.25mm
CN15	1-WIRE INTERFACE	(TF)WAFER.4P:180D.(M).2.5mm.W/LOCK POWER DIP

CN18	LCD	(TF)Board-Wire Connector:20P.180D(M).SMD.Pitch=1.25mm.W/Reinforc em
CN19	FULL MOTOR	(TF)ATX POWER CONNECTOR.12P*2.180D(M)
CN20	HALF MOTOR	(TF)ATX POWER CONNECTOR.10P*2.180D.DIP

2.3.2.1 Relay GPO (CN1)

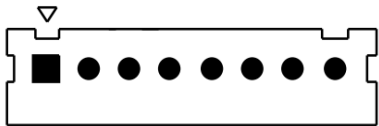


Pin	Signal Description	Pin	Signal Description
1	DO_0	2	DO_1
3	DO_2	4	DO_3
5	RELAY_PWR	6	RELAY_PWR
7	RELAY_PWR	8	RELAY_PWR



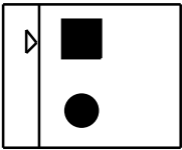
RELAY POWER MODE SELECTION		
1-2	+5V	Default
2-3	+12	

2.3.2.2 MDB Master (CN2)



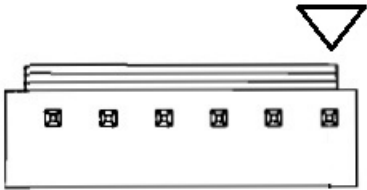
Pin	Signal Description	Pin	Signal Description
1	MDB_SUPPLY	2	EXT_24V_RTN
3	NC	4	MDB_RX
5	MDB_TX	6	GND
7	GND	8	GND

2.3.2.3 +12V Supply (CN3)



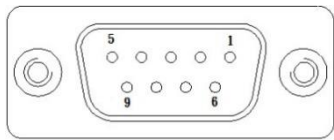
Pin	Signal Description	Pin	Signal Description
1	12V	2	GND

2.3.2.4 Power Input (CN4)



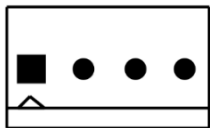
Pin	Signal Description	Pin	Signal Description
1	MDB_SUPPLY	2	EXT_24V_RTN
3	NA	4	MDB_RX
5	MDB_TX	6	GND

2.3.2.5 RS232 (CN5)



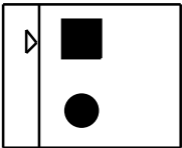
Pin	Signal Description	Pin	Signal Description
1	N/A	2	RS232_RXD
3	RS232_TXD	4	N/A
5	GND	6	N/A
7	N/A	8	N/A
9	N/A		

2.3.2.6 UART (CN6)



Pin	Signal Description	Pin	Signal Description
1	+3.3V	2	UART_TXD
3	UART_RXD	4	GND

2.3.2.7 +24V Output (CN7)



Pin	Signal Description	Pin	Signal Description
1	MOTOR_PWR	2	GND

JP3

**MOTOR POWER MODE
SELECTION**

A diagram of a two-pin header. The left pin is labeled with a solid black circle, representing Pin 1. The right pin is labeled with a solid black square, representing Pin 2.

JP4

**MOTOR POWER MODE
SELECTION**

A diagram of a two-pin header. The left pin is labeled with a solid black circle, representing Pin 1. The right pin is labeled with a solid black square, representing Pin 2.

MOTOR POWER MODE SELECTION		
1-2	PWM	Default
2-3	DC	

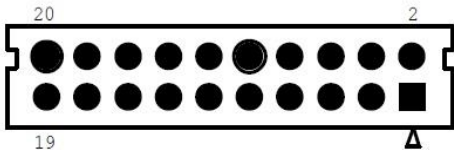
MOTOR POWER SELECTION		
1-2	12V	Default
2-3	24V	

2.3.2.8 ADC (CN8)



Pin	Signal Description	Pin	Signal Description
1	ANALOG_IN1	2	ANALOG_IN2
3	GND	4	GND
5	ANALOG_IN3	6	ANALOG_IN4

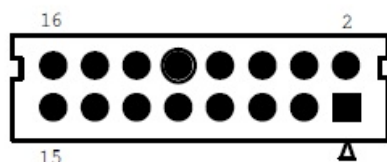
2.3.2.9 16 Bit GPIO (CN10)



Pin	Signal Description	Pin	Signal Description
1	5V_CON_GPI1	2	5V_CON_GPIO1
3	5V_CON_GPI2	4	5V_CON_GPIO2
5	5V_CON_GPI3	6	5V_CON_GPIO3
7	5V_CON_GPI4	8	5V_CON_GPIO4

9	5V_CON_GPI5	10	5V_CON_GPIO5
11	5V_CON_GPI6	12	5V_CON_GPIO6
13	5V_CON_GPI7	14	5V_CON_GPIO7
15	5V_CON_GPI8	16	5V_CON_GPIO8
17	GND	18	GND
19	GND	20	GND

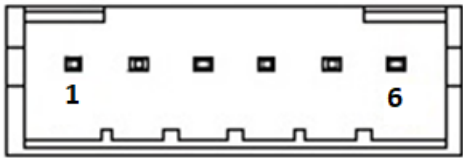
2.3.2.10 24V Vending Input (CN11)



Pin	Signal Description	Pin	Signal Description
1	24V_GPI1	2	24VIO_RTN_OPTO
3	24V_GPI2	4	24VIO_RTN_OPTO
5	24V_GPI3	6	24VIO_RTN_OPTO
7	24V_GPI4	8	24VIO_RTN_OPTO
9	24V_GPI5	10	24VIO_RTN
11	24V_GPI6	12	24VIO_RTN
13	24V_GPI7	14	24VIO_RTN

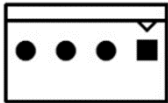
15	24V_GPI8	16	24VIO_RTN
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2.3.2.11 Protocol A (CN12)



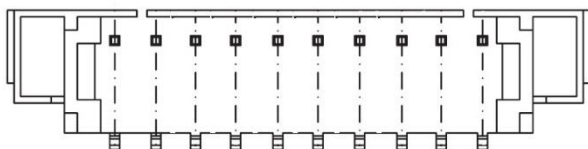
Pin	Signal Description	Pin	Signal Description
1	MDBSLAVE_EXE_TX+_5V	2	MDBSLAVE_EXE_TX-_5V
3	MDBSLAVE_EXE_RX+_5V	4	MDBSLAVE_EXE_RX-_5V
5	PWR_IN_AC	6	GND

2.3.2.12 DEX INTERFACE (CN13)



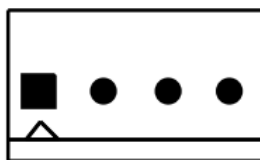
Pin	Signal Description	Pin	Signal Description
1	DEX_DET	2	GND
3	DEX_DOUT	4	DEX_RIN

2.3.2.13 Keypad (CN14)



Pin	Signal Description	Pin	Signal Description
1	5V	2	KEYPAD_0
3	KEYPAD_1	4	KEYPAD_2
5	KEYPAD_3	6	KEYPAD_4
7	KEYPAD_5	8	KEYPAD_6
9	KEYPAD_7	10	GND

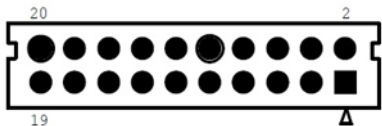
2.3.2.14 One Wire (CN15)



Pin	Signal Description	Pin	Signal Description
1	+3.3V	2	1-Wire DEVICE

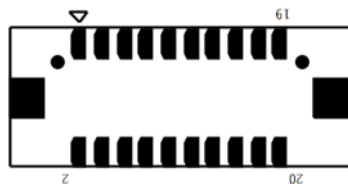
3	GND	4	GND
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2.3.2.15 16 Bit GPIO (CN16)



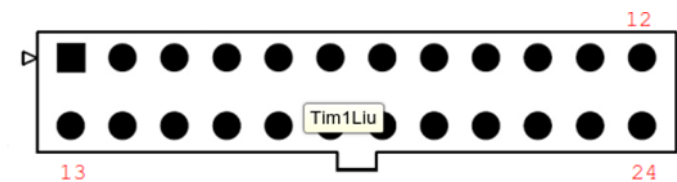
Pin	Signal Description	Pin	Signal Description
1	5V_HDR_GPI1	2	5V_HDR_GPIO1
3	5V_HDR_GPI2	4	5V_HDR_GPIO2
5	5V_HDR_GPI3	6	5V_HDR_GPIO3
7	5V_HDR_GPI4	8	5V_HDR_GPIO4
9	5V_HDR_GPI5	10	5V_HDR_GPIO5
11	5V_HDR_GPI6	12	5V_HDR_GPIO6
13	5V_HDR_GPI7	14	5V_HDR_GPIO7
15	5V_HDR_GPI8	16	5V_HDR_GPIO8
17	GND	18	GND
19	GND	20	GND

2.3.2.16 LCD (CN18)



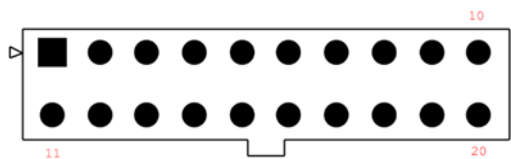
Pin	Signal Description	Pin	Signal Description
1	GND	2	5V
3	5V(Variable Resistor)	4	DISPLAY_RS
5	DISPLAY_RW	6	DISPLAY_EN
7	LCD_CN_0	8	LCD_CN_1
9	LCD_CN_2	10	LCD_CN_3
11	LCD_CN_4	12	LCD_CN_5
13	LCD_CN_6	14	LCD_CN_7
15	NA	16	GND
17	NA	18	NA
19	NA	20	NA

2.3.2.16 Full bridge motor (CN19)



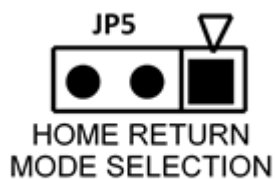
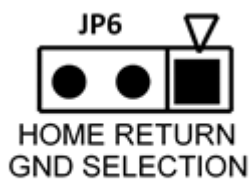
Pin	Signal Description	Pin	Signal Description
1	MOTOR_RTN	2	FULL_BRIDGE_1_BR
3	FULL_BRIDGE_1_TR	4	FULL_BRIDGE_2_BR
5	FULL_BRIDGE_2_TR	6	FULL_BRIDGE_3_BR
7	MOTOR_RTN	8	FULL_BRIDGE_3_TR
9	FULL_BRIDGE_4_BR	10	FULL_BRIDGE_4_TR
11	FULL_BRIDGE_5_BR	12	FULL_BRIDGE_5_TR
13	MOTOR_VOLTAGE	14	FULL_BRIDGE_1_TL
15	FULL_BRIDGE_1_BL	16	FULL_BRIDGE_2_TL
17	FULL_BRIDGE_2_BL	18	FULL_BRIDGE_3_TL
19	MOTOR_VOLTAGE	20	FULL_BRIDGE_3_BL
21	FULL_BRIDGE_4_TL	22	FULL_BRIDGE_4_BL
23	FULL_BRIDGE_5_TL	24	FULL_BRIDGE_5_BL

2.3.2.17 Low side motor (CN20)



Pin	Signal Description	Pin	Signal Description
1	LOWSIDE1_M-_1	2	LOWSIDE1_M-_2
3	LOWSIDE1_M-_3	4	LOWSIDE1_M-_4
5	LOWSIDE1_M-_5	6	LOWSIDE1_M-_6
7	LOWSIDE1_M-_7	8	LOWSIDE1_M-_8
9	MOTOR_RTN	10	MOTOR_RTN
11	LOWSIDE2_M-_1	12	LOWSIDE2_M-_2
13	LOWSIDE2_M-_3	14	LOWSIDE2_M-_4
15	LOWSIDE2_M-_5	16	LOWSIDE2_M-_6
17	LOWSIDE2_M-_7	18	LOWSIDE2_M-_8
19	MOTOR_RTN	20	MOTOR_RTN
21	MOTOR_RTN		

2.3.2.18 Home sense (JP5 JP6)



HOME POSITION MODE SELECTION		
1-2	DC	
2-3	PWM	Default

MOTOR RETURN GND SELECTION		
1-2	DC	
2-3	PWM	Default

Chapter 3

Motor Setup

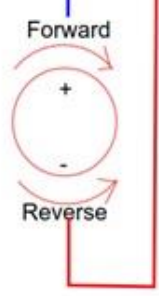
3.1 Introduction

The AIOT-MSSP01 supports four types of motor configurations. Please refer to the following motor configuration setting information.

3.2 Full Bridge Motor Configuration



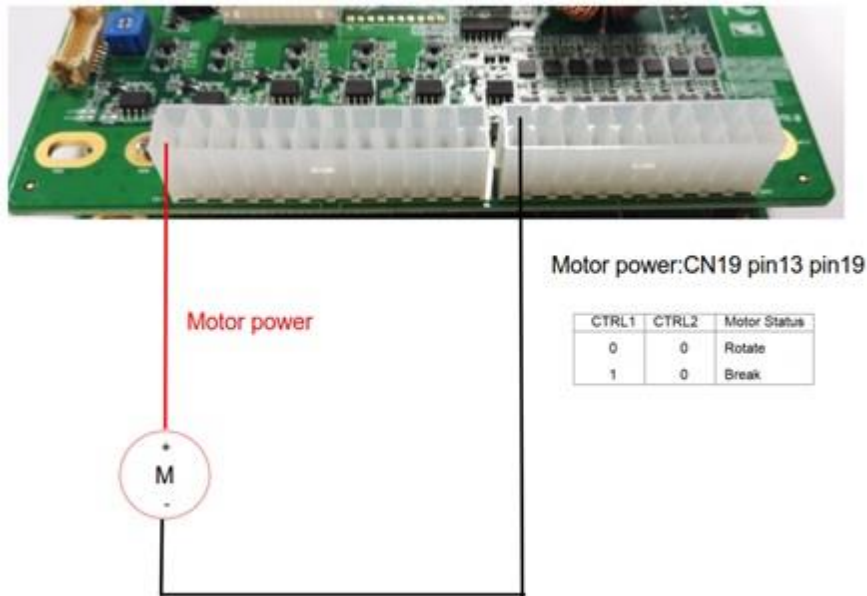
CN19 pin14 pin15



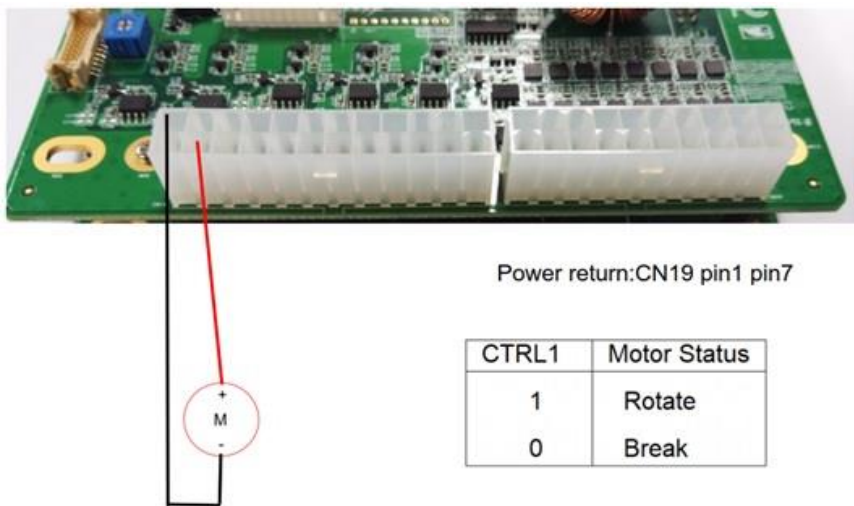
FULL-BRIDGE TRUTH TABLE

MOTOR_CTRL1	MOTOR_CTRL2	Motor Status
0	0	Break
1	0	Forward
0	1	Reverse
1	1	Break

3.3 Low Side Motor Configuration



3.4 High Side Motor Configuration

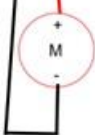


3.4 Half Motor Configuration



CN19 pin 2

CN19 pin 14

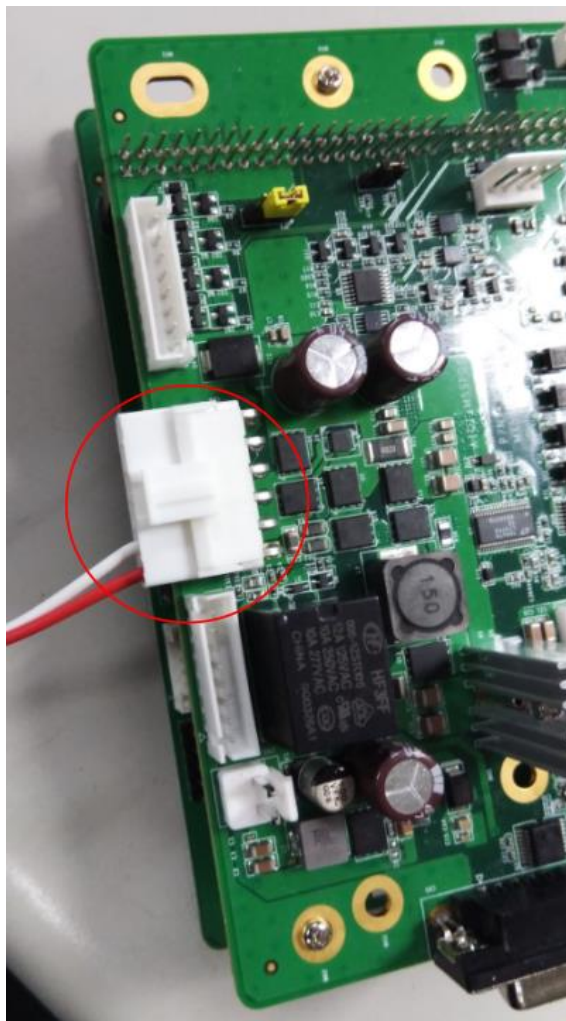


CTRL1	CTRL2	Motor Status
0	0	Break
1	0	Rotate

Chapter 4

Installation Guide

Step 2: Connect ICD3 device with the board and then plug in power



Step 3: Launch MPLAB IPE application



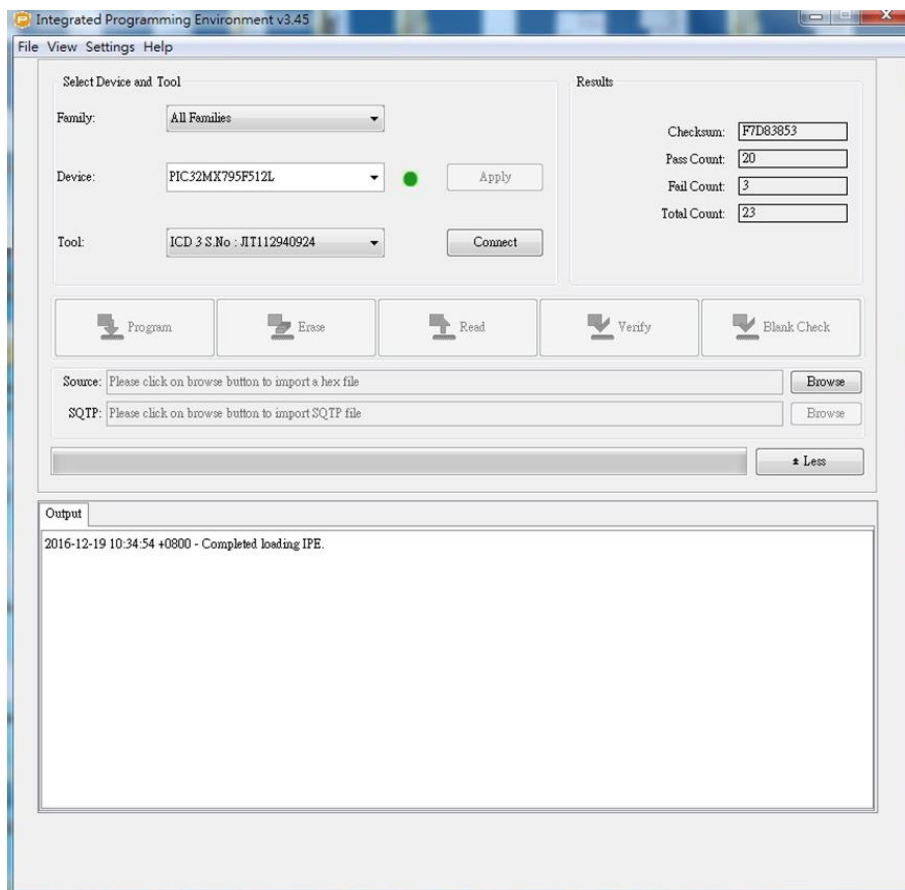
MPLAB IPE v3.45

Step 4: Select the following options.

Family: Please chose 32-bit MCUs (PIC32)

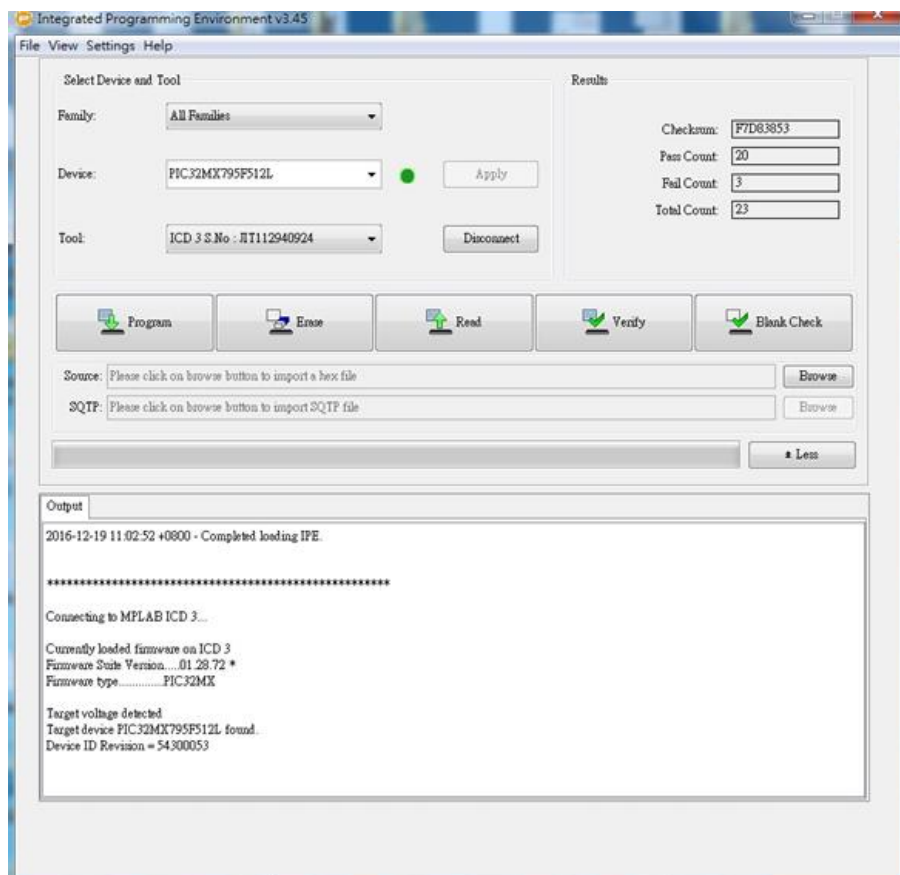
Device: Please select PIC32MX795F512L

Tool: Please select ICD 3 (with appropriate serial number)



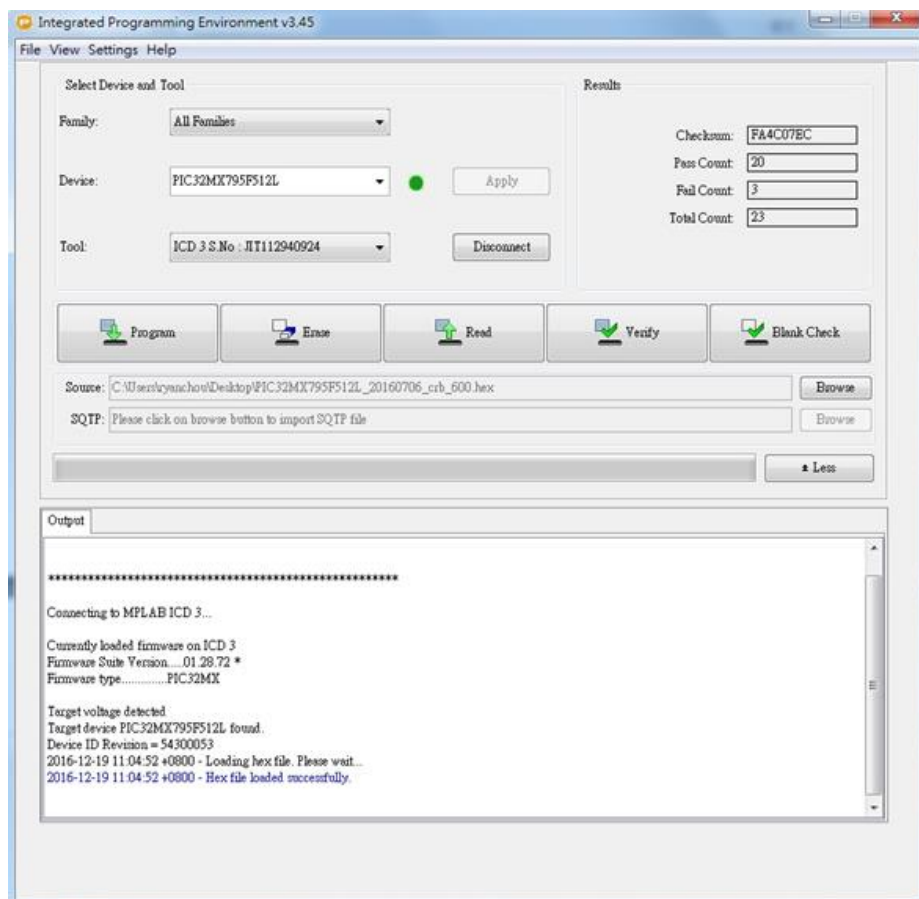
Microchip IPE initial screen

Step 5: After selecting the connect button to connect to the target board, the following screen will appear.



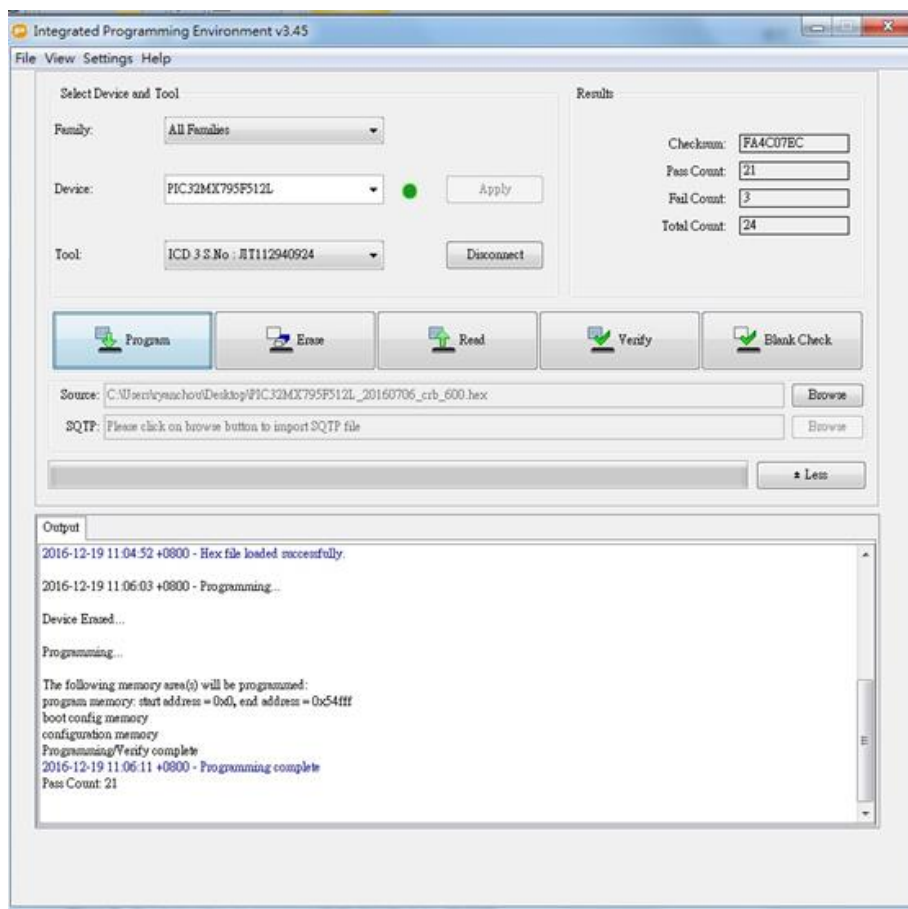
Microchip IPE screen after connection

Step 6: Please click on "Browse" and locate the firmware hex file from source side in order to load Hex file. You will then see an acknowledge message in MPLAB IPE as shown below.



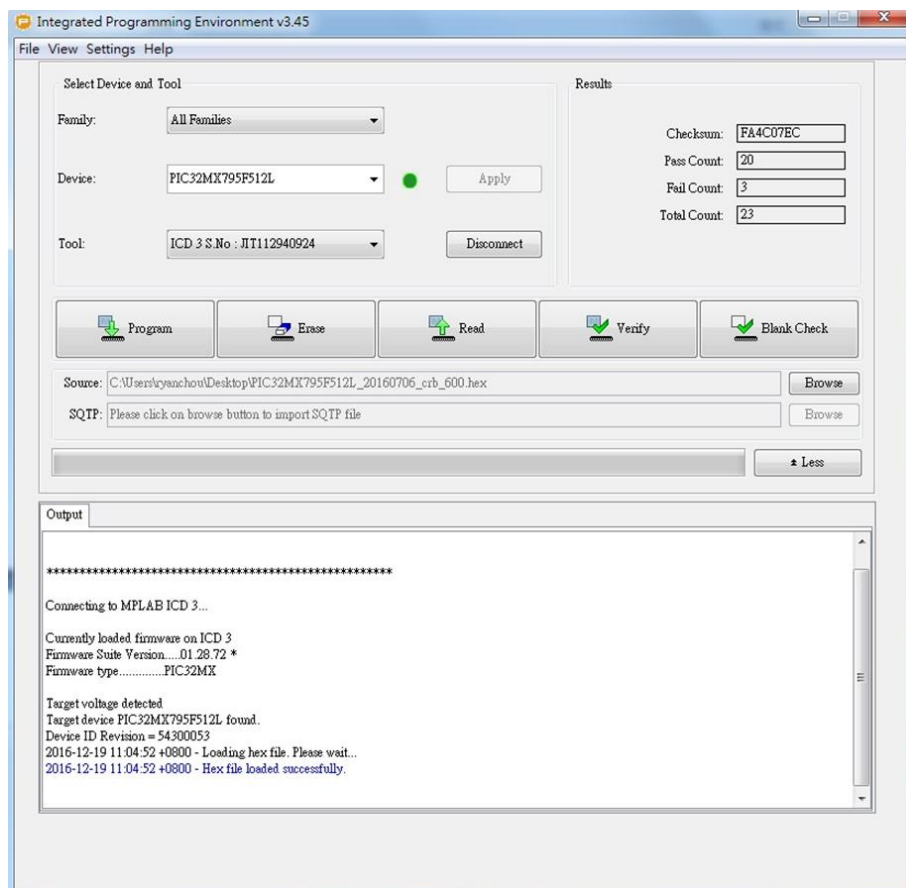
Microchip IPE Hex file loaded screen

Step 7: Please click on the Program button. After successfully programming, you will see the screen shown below.



Microchip IPE Programming complete

The HEX file has been successfully loaded to MCU PIC32.



Microchip IPE Hex file loaded screen

4.2 Vending SDK Installation

4.2.1 Windows 10 Version

Please follow the steps below to install supporting software programs before installing Intel_Intelligent_Vending_Sample_Application.exe.

Step 1 Install QT 5.8 https://download.qt.io/official_releases/qt/5.8/5.8.0/qt-opensource-windows-x86-msvc2015-5.8.0.exe

Step 2 Update the PATH environment variable to include needed QT and Axis2C runtime binaries.

Step 3 In order to update the environment variable PATH in Windows 10, please follow the steps below.

Step 3.1 Right click the Windows start button in the lower left hand corner.

Step 3.2 Click System from the menu.

Step 3.3 Click Advanced System Settings from the left panel.

Step 3.4 Click the Environment Variables button in the popup.

Step 3.5 In the System Variables section scroll to PATH and click the button.

Step 3.8 In the popup add the above paths and click the New button for each line:

c:\Qt\Qt5.8.0\5.8\msvc2015\bin

```
c:\Qt\Qt5.8.0\5.8\msvc2015\plugins\sqldrivers
c:\Qt\Qt5.8.0\5.8\msvc2015\plugins\mediaservice
c:\Qt\Qt5.8.0\5.8\msvc2015\plugins\platforms
C:\Users\<TODO_ADD_WINDOWS_USER_NAME_HERE>\AppData\Local\Intel_Corpora
tion\Intel(R) Intelligent Vending Sample Application\API\Bin\Windows\axis2c\lib
```

Remark: If there is no button to add each line and only a single textbox exists then add all paths separated by ;

For example:

```
<ANY_EXISTING_PATHS_HERE>;c:\Qt\Qt5.8.0\5.8\msvc2015\bin;c:\Qt\Qt5.8.0\5.8\msv
c2015\plugins\sqldrivers;c:\Qt\Qt5.8.0\5.8\msvc2015\plugins\mediaservice;c:\Qt\Qt5.8.
0\5.8\msvc2015\plugins\platforms;C:\Users\<TODO_ADD_WINDOWS_USER_NAME_H
ERE>\AppData\Local\Intel_Corporation\Intel(R) Intelligent Vending Sample
Application\API\Bin\Windows\axis2c\lib
```

Step 4 Please Install Telemetry Dependencies

Step 4.1 Install Mosquitto or another MQTT broker of your choice.

Remark

Mosquitto download is located here: <https://mosquitto.org/download/mosquitto-1.4.12-install-win32.exe>

Mosquitto will need OpenSSL and pthreadVC2 DLLs copied to its install directory. You will first need to install Mosquitto, and then copy the files to the Mosquitto Windows install directory (C:\Program Files (x86)\mosquitto\), install MSVC100 (see below). Then re-install Mosquitto.

Step 4.2 Download pthreadvc2.dll

Use the prebuilt package at <ftp://sourceware.org/pub/pthreads-win32> and download the file pthreads-w32-2-9-1-release.zip.

Step 4.3 After extracting the folder, copy Pre-built2/dll/x86/pthreadVC2.dll to your Mosquitto install directory.

Step 5 For OpenSSL, you can copy libeay32.dll and ssleay32 dlls from the Vending SDK install directory

C:\Users\<TODO_ADD_WINDOWS_USER_NAME_HERE>\AppData\Local\Intel_Corporation\Intel(R) Intelligent Vending Sample Application\API\Bin\Windows

Step 6 Please download MSVC100 the installer be downloaded from Microsoft using Microsoft Visual C++ 2010 Redistributable Package (x86) at

<https://www.microsoft.com/en-us/download/details.aspx?id=5555>

You will be able to successfully install and run the vending API program after installing support software.

4.2.2 Ubuntu 16.04 Xenial

Please make sure you have a working Internet connection and follow the steps below.

Step 1 Copy the `Ubuntu_16.04_Xenial_Release` folder to your Ubuntu machine.

Step 2 Open a terminal and execute: `sudo su`

Step 3 In the terminal change directories to your copy of the `Ubuntu_16.04_Xenial_Release` folder

Step 4 In the terminal execute: `chmod +x install.sh`

Step 5 In the terminal execute: `./install.sh`

Step 6 When prompted "Do you want to continue" enter Y to install all the software components.

Step 7 When prompted enter the password for MariaDb: `root123`

Step 8 After the install has completed successfully, in the terminal, execute: `mysql -u root -p`

Step 9 When prompted enter `root123` as the password.

Step 10 Execute: `source intel_vending.sql`

Step 11 After the above sql file has been installed execute exit to exit. In the terminal execute: `cd /usr/local/bin`. Utilize any of the `Start*.sh` files to start the test apps, VendingDemo, Telemetry.

In the terminal execute: `cd /usr/local/bin`. Utilize any of the `Start*.sh` files to start the test apps, file name: VendingDemo

4.2.3 Update vending SDK for Ubuntu 16.04 Xenial

If you already have the SDK installed on Ubuntu 16.04 Xenial, please follow the steps below to upgrade an existing system.

Step 1 Copy the `Ubuntu_16.04_Xenial_Release` folder to your Ubuntu machine.

Step 2 Open a terminal and execute: `sudo su`

Step 3 In the terminal change directories to your copy of the `Ubuntu_16.04_Xenial_Release` folder

Step 4 In the terminal execute: `dpkg -r IntelVendingSDK`

Step 5 In the terminal execute: `dpkg -i IntelVendingSDK-3.5.8.0-Linux.deb`

4.2.4 Update DB in vending SDK for Ubuntu 16.04 Xenial

If the upgrade requires a DB update, please follow the steps below.

Step 1 In the terminal execute: `mysql -u root -p`

Step 2 When prompted enter root123 as the password.

Step 3 Execute: `source intel_vending.sql`

Step 4 After the above sql file has been installed execute `exit` to exit.

Note: Re-installing the *.deb or install.sh will NOT erase any changes previously made to the Vending database. Only Vending Demo files in the UI folder will be erased.