MC-EX-AV8 Expansion Module

Analog Input

Startup Guide

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Introduction

SensOper MC-EX-AV8 expansion module is an advanced module can be use with CPU module.

This Analog Input module have I2C interface for establish communication between CPU module.

Changing DIP switch configuration the I2C address can be changed.

Eight Analog Input read 0-10 V range signals.

This module internal operation power is 5V DC / 30mA.

The 40 pin board to board connectors were included for make connection between CPU module or other expansion modules.

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1. Connecting with Power and Input Terminals

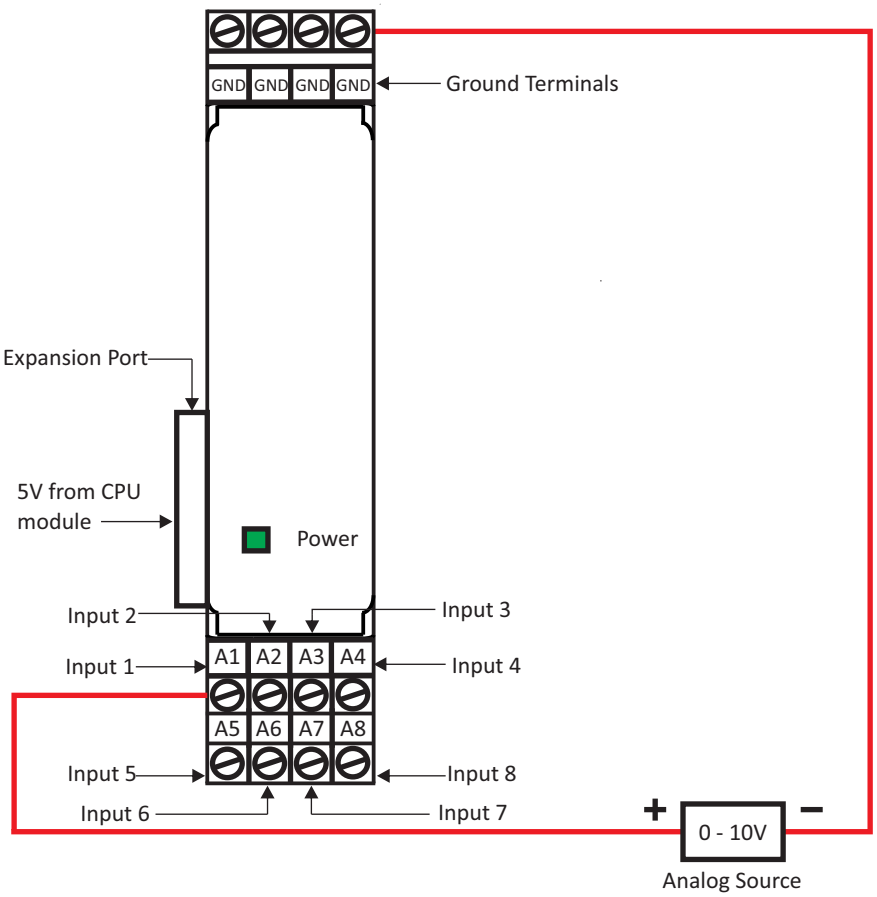

Figure 1(a): Analog Input Expansion module power up and Inputs wiring.

***Make sure not turn on all DIP switches at same time.**

CPU Module and Expansion Module GPIO Connection Diagram

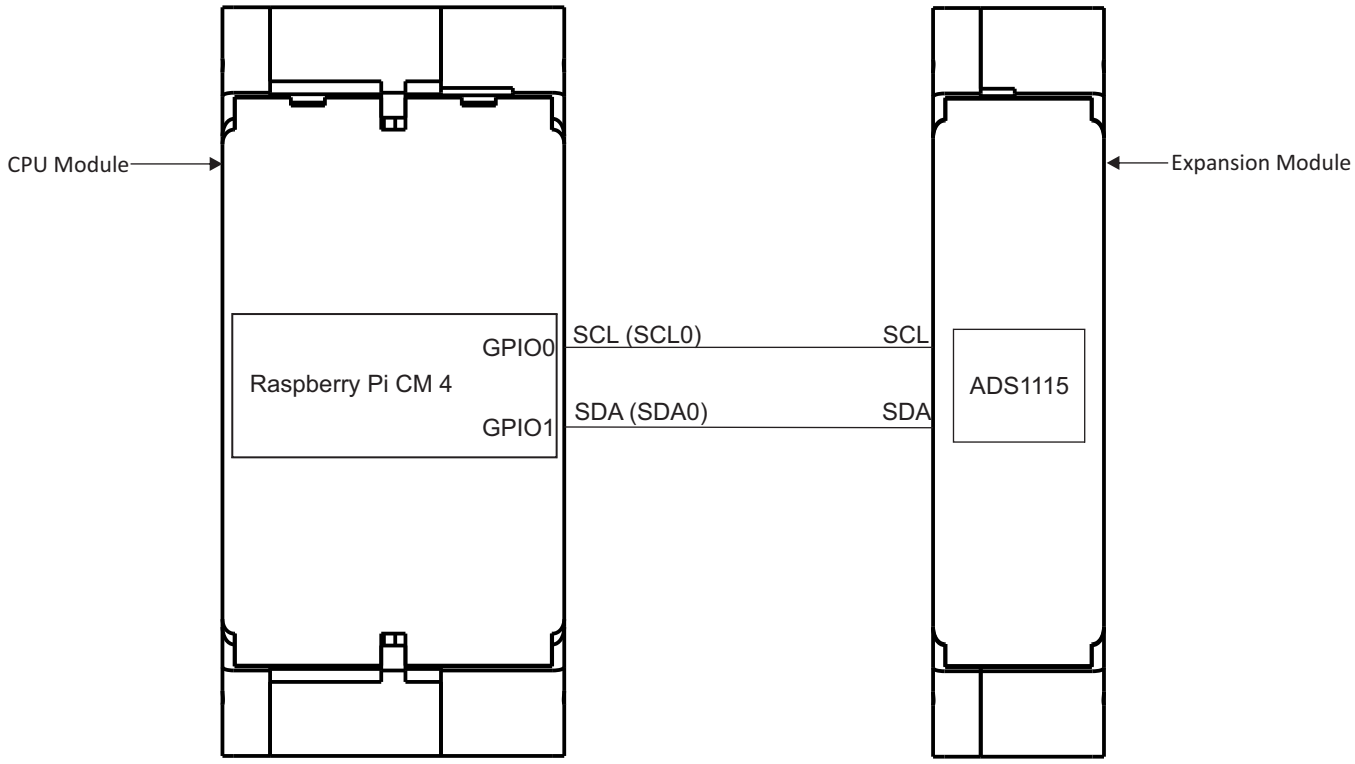

Figure 1(b): The GPIO connection with CPU module and Expansion Module.

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2. Run Example Program

1. After following Figure 1(a), (b) diagram instructions in previous sections 1 . Connect a Analog Inputs Expansion module in to the 40 pin board to board connector in CPU Module (Explained in MC-CPU-CM4-Gx datasheet).
2. Now open Terminal Window after turn on the CPU Module.
3. Type **'i2cdetect -y 0**' command and run the command.
4. The result will be similar to the Figure 2 shown below.
5. Here the **'48'** & **49**' are the Analog Inputs expansion module I2C addresses, This I2C address can be changed according to user requirement by changing the DIP switch configuration on expansion module.

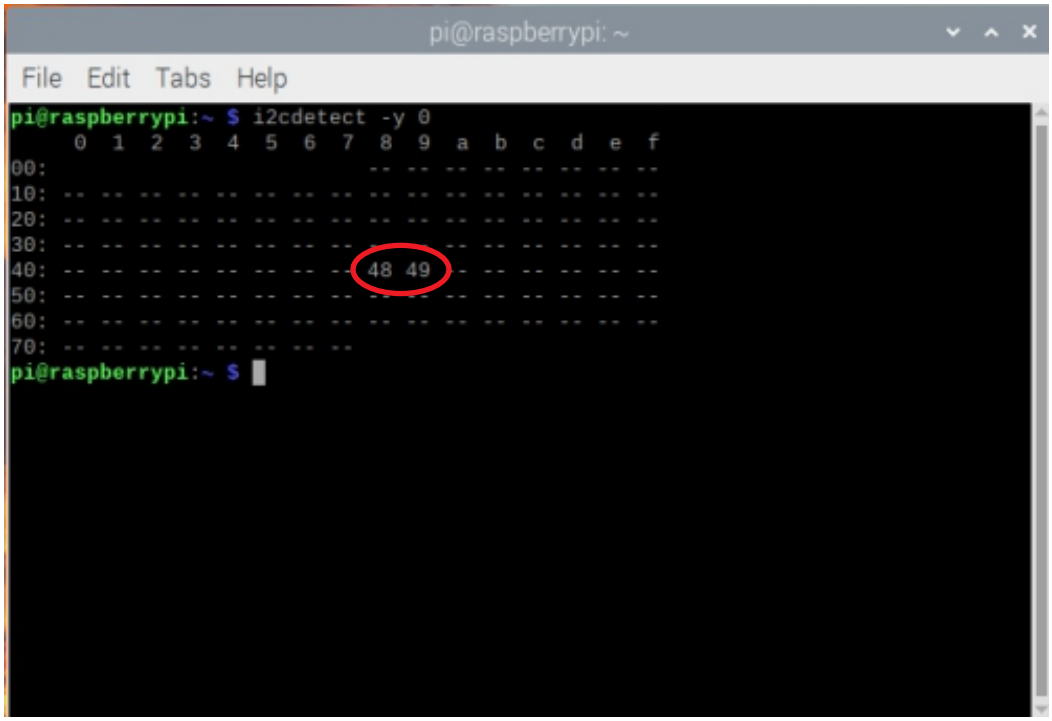

Figure 2: The Analog Input Module I2C address check result .

6. Follow the **File Manager > Pi > Rpi_Moduler_test** path, then open **Rpi_Moduler_test** folder.
7. In **Rpi_Moduler_test** folder include example program for every expansion module.
8. Select the **MC_EX_ASC1115_Analog_IN_test.py** example program that matches with the Analog Input expansion module shown in Figure 3.

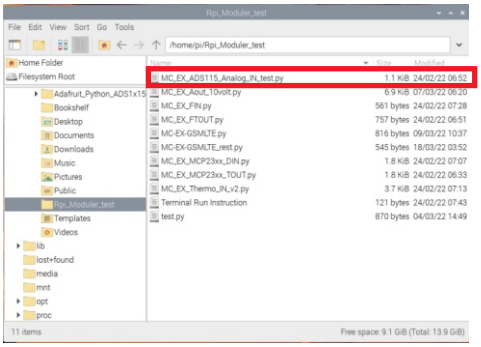

Figure 3: The example programs for expansion modules.

5. The python program will open on default Thonny Python IDE. Click RUN for start the program shown in Figure 4.

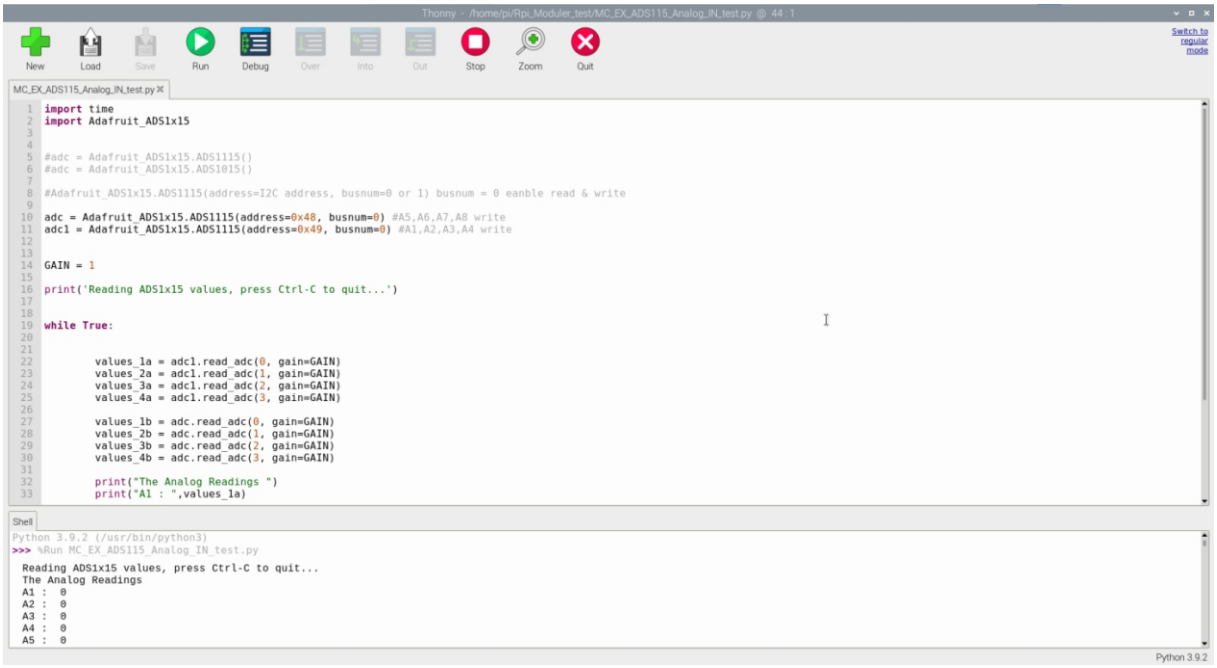

Figure 4: Analog Input example code run on Thonny Python IDE.

Table 1: The DIP switch setup

Address	DIP Switch			
	4	3	2	1
72	OFF	OFF	OFF	ON
73	OFF	OFF	ON	OFF
74	OFF	ON	OFF	OFF
75	ON	OFF	OFF	OFF

DIP Switch Arrangement

INPUT 1 - 4

INPUT 5 - 8

***Read the Product label for more details about DIP switch configuration.**

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3. Revision History .

The table shown below include the revision history of this document.

Revision Number	Date	Substantial Changes
0	18/3/2022	First Edition of Startup guide
1	-	-

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