

I/O Communication Module

• Introduction

- The IEI PM I/O module series enables you to turn your single board computer (SBC) into a PC-based data acquisition and control system. Data acquisition and control systems generally perform one or more input and output functions such as analog input, analog output, digital input, digital output, counter/timer, and industrial field bus communication. IEI PM series I/O modules have the following features:
 - Analog Inputs
 - Counter/Timer
 - Digital Inputs and Outputs
 - CAN bus communication
- These days the PC-based data acquisition and control system products like industrial SBC and I/O modules have become increasingly reliable, accurate, and affordable. PC-based data acquisition and control systems are now widely used in industrial and laboratory applications such as monitoring, control, data acquisition and automated testing.

• IEI PM Series Solution

- IEI PM industrial I/O solutions provide both I/O boards and corresponding off-the-shelf best-fit single board computers (SBC), embedded chassis, and embedded systems. The following guide is provided to help you to build up your data acquisition system:

Step 1 : Decide the type of I/O

- PM-3001 : 2 x CAN, 8 x DI, 8 x DO
- PM-3002 : 16 x DI, 16 x DO, including 4 x 16-bit counter and 1 x Max. 100KHz timer
- PM-3003 : 8 x DI, 8 x DO, 2 x AI
- PM-3004 : 2 x CAN, 8 x DI, 8 x DO, 2 x AI



Step 2 : Hardware Platform selection

- IEI KAMIO Series RISC-based SBC



Step 3 : Embedded Chassis selection

- IEI EBC-1000G embedded chassis for WAFER series SBC

Step 4 : Software Support

- Embedded OS and Drivers : Supports Windows® XP Embedded or Windows® CE 5.0.
- SDK : Software Development Kits (SDK) for Windows® XP, Windows® XPe and Windows® CE 5.0 application software programming, and demo source code is provided.
- Diagnostic Utility : Utility for testing I/O modules.
- Modbus Support : IEI provides Modbus Servers for PM Series I/O modules to turn your device into a Modbus device and thus can easily communicate and integrate with any SCADA (Supervisory Control And Data Acquisition) software and system.



Model Name		PM-3001	PM-3002	PM-3003	PM-3004
Bus Interface		PC / 104	PC / 104	PC / 104	PC / 104
CAN Communication Interfaces	Ports	2	-	-	2
	Isolated Protection	3000 VDC	-	-	3000 VDC
Digital Input	Input Channels	8 x Isolated DI	16 x Isolated DI	8 x Isolated DI	8 x Isolated DI
	Isolated Protection	2000 VDC	2000 VDC	2000 VDC	2000 VDC
Digital Output	Output Channels	8 x Isolated DO	16 x Isolated DO	8 x Isolated DO	8 x Isolated DO
	Isolated Protection	2000 VDC	2000 VDC	2000 VDC	2000 VDC
Counter / Timer (DI / DO)	Channels	-	4 / 4	-	-
	Resolution	-	16-bit	-	-
	Time Base	-	100 / 10 / 1 kHz , 100 Hz	-	-
Analog Input	Input Channels	-	-	2 x AI (Thermocouple)	2 x AI (Thermocouple)
	Resolution	-	-	16-bit	16-bit
	Voltage Input	-	-	±5 V ±2.5 V 0~2.5 V 0~5 V	±5 V ±2.5 V 0~2.5 V 0~5 V
Driver Support		Windows® 2000, Windows® XP, Windows® XPe and Windows® CE 5.0			

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Industrial Computing Solutions

2

Embedded Computing Solutions

3

RISC-Based Embedded Solutions

4

Industrial Data Collector/ Server Solutions

5

Video Capture Solutions

6

I/O Communication Solutions

7

Panel Solutions

8

Power Supply/ Network Communication/ Peripherals