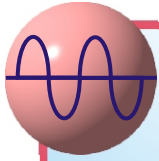
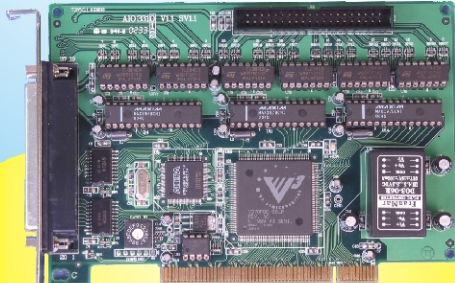




Bridging the Gap between Real World and Computer



AIO-3310/1/2 8/16/24 Channel Analog Input Card



Software key function

Features

- ▶ 8/16/24 channel 12bit analog inputs (standard:8 channels)
- ▶ Software selectable input range: -10V~ +10V, -5V~ +5V , 0~10V, 0~5V
- ▶ Factory pre-calibrated analog conversion accuracy
- ▶ 2 byte-wide programmable TTL I/O
- ▶ DIO00, DIO01 as trigger/counter in, DIO10,DIO11 as trigger out of timer/counter function
- ▶ 2 32bit multifunction counters up to 8MHz
- ▶ Multi-function: programmable one-shot ; square wave generator ; event counter ; PWM generator

Introduction

AIO-3310/3311/3312 involves multi-channels of analog input, multi-functions of digital I/O and timer/counter.

Each analog input channel has been calibrated with precision instruments and all the records kept in the on-card EEPROM to give users a transparent environment of accurate result at competitive low price.

Port programmable TTL I/O and two 32bit timer/counter provide versatile functions such as: programmable one-shot, square wave generator, event counter, and PWM generator.

Multiple selection 8/16/24 channels to cut down cost as you need.

DII is provided for WIN NT/95/98/2000/XP platform and sample programs come with C / VB source code.

Specifications (With Matched Wiring Board)

Analog Input

- ▶ Input Channel : 8/16/24 channels (standard:8)
- ▶ Input Type : single ended or differential
- ▶ Resolution : 12bit
- ▶ Input Range : -10V~ +10V, -5V~ +5V , 0~10V, 0~5V
- ▶ Range Selection : software selectable per chip
- ▶ Conversion Speed : 6us per chip
- ▶ Accuracy : full range within 5mV (after calibration)

Digital Block

- ▶ I/O Channels : 16 TTL (2 ports)
- ▶ Configuration : programmable byte input/output

Timer/Counter Block

- ▶ Channels : 2
- ▶ Data Length : 32 bit
- ▶ Specific Input : trigger in/counter in via digital I/O port0
- ▶ Specific Output : trigger out /counter out via digital I/O port 1
- ▶ Time Base : 4MHz
- ▶ Multi-Functions For :
 - programmable one-short
 - square wave generator
 - event counter
 - PWM generator

General

- ▶ PCI Data Width : 32 Bits
- ▶ Card ID : 4 bits
- ▶ Security Password : 10 bytes, user configurable
- ▶ Interrupt : software disable/enable
- ▶ Dimension : 154(W)*112(H)mm, 6.06(W)*4.41(H)in

Pin Assignments

ON CARD		EXTENSION	
DIO00	1 20	AI8+	1 20
DIO02	2 21	AI9+	2 21
DIO04	3 22	AI10+	3 22
DIO06	4 23	AI11+	4 23
DIO10	5 24	AI12+	5 24
DIO12	6 25	AI13+	6 25
DIO14	7 26	AI14+	7 26
DIO16	8 27	AI15+	8 27
AI0+	9 28	AI16+	9 28
AI1+	10 29	AI17+	10 29
AI2+	11 30	AI18+	11 30
AI3+	12 31	AI19+	12 31
AI4+	13 32	AI20+	13 32
AI5+	14 33	AI21+	14 33
AI6+	15 34	AI22+	15 34
AI7+	16 35	AI23+	16 35
+5Vout	17 36	+5Vout	17 36
GND	18 37	GND	18 37
+15Vout	19 37	+15Vout	19 37
		-15Vout	



Bridging the Gap between Real World and Computer

Applications

- ▶ Analog signal measurement for physical signal of temperature, voltage, current, flow, light...etc
- ▶ digital i/o control of switch input, relay control, trigger output
- ▶ Counter/Timer for event counting, periodic interrupt source, PWM generator, counter/timer with trigger out, duration counter

Software Support

▶ PC OS Support

Windows 98/2000/XP & Linux O.S.
Embedded XP, Win CE (at request), Vista

▶ Library

DLLs, VI library

▶ Develop Software

Visual C++, Visual Basic,
Borland C/C++ Builder, LabVIEW etc

▶ Example Source Code

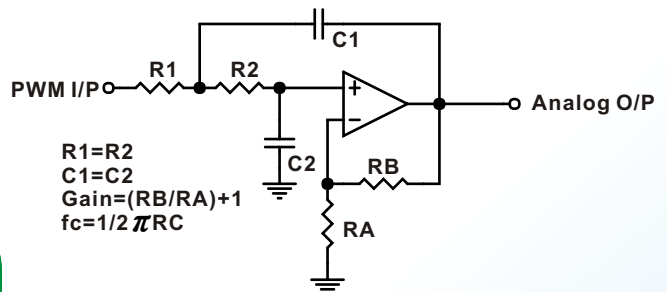
Visual Basic

Ordering Information

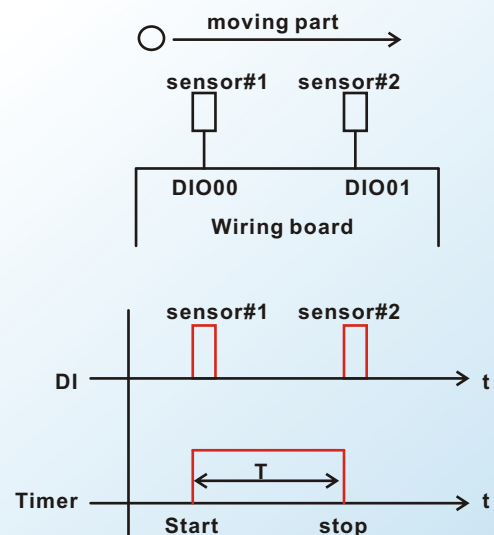
- ▶ **AIO-3310** : Analog I/O Card 8 channels analog input, 16 TTL I/O and multi function timer/counter
- ▶ **AIO-3311** : Analog I/O Card 16 channels analog input, 16 TTL I/O and multi function timer/counter
- ▶ **AIO-3312** : Analog I/O Card 24 channels analog input, 16 TTL I/O and multi function timer/counter
- ▶ **JS51026** : DIN rail mounted dummy wiring board (D type 37p male to terminals)
- ▶ **M270337X0** : D type 37p male-female cable 1.5M
- ▶ **M270337X0S** : D type 37p male-female cable 1.5M,shielding
- ▶ **M270337X2** : D type 37p male-female cable 3.0M
- ▶ **M270337X2S** : D type 37p male-female cable 3.0M,shielding
- ▶ **SM23403** : Extension kit (bracket and flat cable for 37p D-type connector)(3311/3312 only)

Application Tips

▶ Using PWM output as D/A converter



▶ Using trigger input and counter to measure time interval



Note