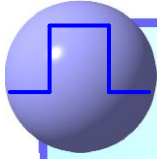
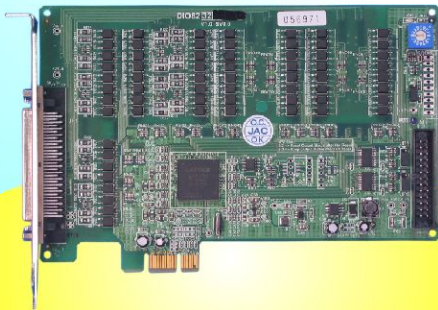




Bridging the Gap between Real World and Computer



DIO8232 PCIe-BUS



64-Channel Digital I/O Card (32 DI and 32 DO Photo-Coupler Isolated)

Features

- ▶ PCIe plug and play function with card ID for 16 identical cards
- ▶ 32 isolated DI and 32 isolated DO channels
- ▶ High voltage isolation on all isolated channel (2500 Vac)
- ▶ Programmable debounce at 50Hz, 100Hz, 200Hz, 1KHz and no de-bounce for input
- ▶ No output transition during start-up
- ▶ Output status readback
- ▶ External triggered interrupt (on IN07~IN00 and TTL IO07~IO00)
- ▶ Input counter / frequency counter (on IN07~IN00 and TTL IO07~IO00)
- ▶ Keep output state after hot reset (jumper selectable)
- ▶ Watch dog timer with default output on OUT07~OUT00
- ▶ 32-bit timer with time up interrupt

Introduction

The DIO8232 card offers 32 isolated digital input channels and 32 isolated digital output channels for the PCIe bus. The card featured with Input Counter function and external trigger interrupt function on isolated input port0 or TTL input port0. 32 bit timer and WDT(watch dog timer) with default output are the other highlights.

Dll is provided for WinXP, Win7 and later or LINUX platform and sample programs come with VB source code.

Specifications (With Matched Wiring Board)

Input Section

- ▶ Input channel : 32 isolated digital input
- ▶ ON state : 8Vdc(max), 4mA(min)
- ▶ OFF state : 12Vdc(min), 3mA(max)
- ▶ Software debounce : No debounce, 50Hz, 100Hz, 200Hz, 1KHz
- ▶ Switching speed : 10KHz max. (limit by photo coupler speed and debounce filter)
- ▶ Interrupt : IN07 ~ IN00, TTL IO07~IO00
- ▶ Counter/frequency counter : IN07~IN00, TTL IO07~IO00

Output Section

- ▶ Output channel : 32 isolated digital output
- ▶ Output rating : 3A @250Vac, 30Vdc (Relay)
1A @ 24Vdc (PMOS)
1A @ 120Vdc (NMOS) with wiring board
- ▶ Switching speed : 20KHz(max)(MOS out only)

TTL IO

- ▶ Port : 2
- ▶ Direction : software programmable on port base
- ▶ Software debounce : No debounce, up to 8MHz

Timer

- ▶ Length : 32 bit @1us
- ▶ Interrupt : time up interrupt

Main Card General

- ▶ Card ID : 4-bit
- ▶ Insulation resistance : 100M Ohm (min) at 1000Vdc
- ▶ Isolation Voltage : 2500Vac 1Min
- ▶ Connector : Centronic type SCSI II 68pin connector
- ▶ Operation Temperature : 0 °C ~ +70 °C
- ▶ Storage Temperature : -20 °C ~ +80 °C
- ▶ Operation Humidity : 5~95% RH, non-condensing
- ▶ Dimensions : 165(W)*110(H)mm, 6.5(W)*4.4(H)in

Applications

- ▶ Accept :
 - P.B./M.S./EMG./Contact - Start/Stop/Limit switch/sensor
 - Interlock/selective Sw.- Proximity switch
 - Aux. contact of transducer/detector
- ▶ As I/O of S/W PLC Controller
- ▶ Industrial ON/OFF control
- ▶ Low speed counter
- ▶ Frequency counter
- ▶ Hardware event capture



Bridging the Gap between Real World and Computer

Software Support

► PC OS Support

WinXP, Win7 and later or Linux O.S.
Embedded XP, Win CE (at request)

► Library

DLLs, VI library

► Develop Software

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

► Example Source Code

Visual Basic

Ordering Information

- **DIO8232** : 64-channel Digital I/O Card for 32 DI and 32 DO
Photo-coupler isolated
- **ADP8232DIN(N)** : DIN rail mounted wiring board for 32 input and 32 NMOS output P.91
- **ADP8232DIN(P)** : DIN rail mounted wiring board for 32 input and 32 PMOS output P.91
- **ADP8232DIN(R)** : DIN rail mounted wiring board for 32 input and 32 Relay output P.91
- **M26J68681M5FW** : 68-pin SCSI-II Centronic cable 1.5 M for JF0 I.18
- **M26J68683M0FW** : 68-pin SCSI-II Centronic cable 3.0 M for JF0 I.18
- **JS51050** : DIN rail mounted dummy wiring board (D type 25P male to terminals) for JM0 TTL I/O I.12
- **M270325X4** : D type 25P male-female cable 1.5M for JM0 I.17
- **M270325X4S** : D type 25P male-female cable 1.5M, shielding for JM0 I.17
- **M270325X0** : D type 25P male-female cable 3.0M for JM0 I.17
- **M270325X0S** : D type 25P male-female cable 3.0M, shielding for JM0 I.17
- **SM23404** : Extension kit for JM0 (bracket and flat cable for 25p female D type connector)

Pin Assignments

JM0		JF0			
IO00	1 14	IO10	+24Vin	68 34	+24Vin
IO01	2 15	IO11	OUT37	67 33	OUT36
IO02	3 16	IO12	OUT35	66 32	OUT34
IO03	4 17	IO13	OUT33	65 31	OUT32
IO04	5 18	IO14	OUT31	64 30	OUT30
IO05	6 19	IO15	OUT27	63 29	OUT26
IO06	7 20	IO16	OUT25	62 28	OUT24
IO07	8 21	IO17	OUT23	61 27	OUT22
GND	9 22	GND	OUT21	60 26	OUT20
GND	10 23	GND	OUT17	59 25	OUT16
GND	11 24	GND	OUT15	58 24	OUT14
+5Vout_PC	12 25	+5Vout_PC	OUT13	57 23	OUT12
+5Vout_PC	13	+5Vout_PC	OUT11	56 22	OUT10
			OUT07	55 21	OUT06
			OUT05	54 20	OUT04
			OUT03	53 19	OUT02
			OUT01	52 18	OUT00
			IN37	51 17	IN36
			IN35	50 16	IN34
			IN33	49 15	IN32
			IN31	48 14	IN30
			IN27	47 13	IN26
			IN25	46 12	IN24
			IN23	45 11	IN22
			IN21	44 10	IN20
			IN17	43 9	IN16
			IN15	42 8	IN14
			IN13	41 7	IN12
			IN11	40 6	IN10
			IN07	39 5	IN06
			IN05	38 4	IN04
			IN03	37 3	IN02
			IN01	36 2	IN00
			+24Vin	35 1	+24Vin

Note