DIO4264

64-Channel Digital I/O PC-104 Module
Two 82C55A PPIs

Features

➤ **48 digital I/O lines emulate two 82C55A PPIs**
➤ **16 extra nibble programmable digital I/O**
➤ **Dual 50-pin connectors for OPTO22 compatible module**
➤ **FPGA based design**
➤ **EXT/INT irq trigger, programmable irq number**
➤ **Circuit diagram provided for potential customer to field change**

Introduction

The DIO4264 card is a FPGA based design that gives the maximum flexibility of implementation. It has 48 point 82C55 mode 0 compatible I/Os with extendable driving capacity (adopt 74HC245 as buffer). Not only the emulate the basic function of 82C55, we also provide 16 extra nibble programmable I/O for your best performance/cost result. For the most convenience of the user the connectors are OPTO22 compatible and the circuit diagram of the card also provided

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

Applications

➤ Industrial ON/OFF control
➤ Contact closure monitoring
➤ Switch status sensing
➤ Digital I/O control
➤ Industrial and lab automation

Specifications

Power Requirement

➤ Power Supply Range : 5Vdc
➤ Power Consumption : 50mA @5V

Input Section (@Vcc=4.5V)

➤ Logic High Voltage : 3.15V(min)
➤ Logic Low Voltage : 1.35(max)
➤ Input High Current : 1μA(max)
➤ Input Low Current : -1μA(max)

Output Section (@Vcc=4.5V)

➤ Logic High Voltage : 3.84V(min) @6mA load
➤ Logic Low Voltage : 0.33V(min) @6mA load
➤ Output High Current : -35mA(max)
➤ Output Low Current : 35mA(max)

Interrupt

➤ Mode : INTernal / EXTernal
➤ Enable/Disable : PC04/PC14
➤ Trigger In : PC00/PC10
➤ Irq No. : irq2 ~ irq7, jumper selectable

Main Card General

➤ Operation Temperature : 0 $^{\circ}$C ~ +70 $^{\circ}$C
➤ Storage Temperature : -20 $^{\circ}$C ~ +80 $^{\circ}$C
➤ Operation Humidity : 5~95% RH, non-condensing
➤ Dimensions : 90(W)*96(H)mm, 3.6(W)*3.8(H)in

Software Support

➤ **PC OS Support**

DOS, WinXP, Win7 and later
Embedded XP, Win CE (at request)

➤ **Example Source Code**

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Ordering Information

➤ **DIO4264 :** 64-channel Digital I/O PC-104 Module (Emulate 2 8255 with higher Output capacity)
➤ **M23220 :** 50pin flat cable 1.5M for CN0/CN1
➤ **M23207 :** 20-pin flat cable 1.5M for CN3 l.17
➤ **M23209 :** 20-pin flat cable 3.0M for CN3 l.17

Pin Assignments

CN0

GND	50	49	+5Vout
GND	48	47	PA00
GND	46	45	PA01
GND	44	43	PA02
GND	42	41	PA03
GND	40	39	PA04
GND	38	37	PA05
GND	36	35	PA06
GND	34	33	PA07
GND	32	31	PB00
GND	30	29	PB01
GND	28	27	PB02
GND	26	25	PB03
GND	24	23	PB04
GND	22	21	PB05
GND	20	19	PB06
GND	18	17	PB07
GND	16	15	PC00
GND	14	13	PC01
GND	12	11	PC02
GND	10	9	PC03
GND	8	7	PC04
GND	6	5	PC05
GND	4	3	PC06
GND	2	1	PC07

CN1

PC17	1	2	GND
PC16	3	4	GND
PC15	5	6	GND
PC14	7	8	GND
PC13	9	10	GND
PC12	11	12	GND
PC11	13	14	GND
PC10	15	16	GND
PB17	17	18	GND
PB16	19	20	GND
PB15	21	22	GND
PB14	23	24	GND
PB13	25	26	GND
PB12	27	28	GND
PB11	29	30	GND
PB10	31	32	GND
PA17	33	34	GND
PA16	35	36	GND
PA15	37	38	GND
PA14	39	40	GND
PA13	41	42	GND
PA12	43	44	GND
PA11	45	46	GND
PA10	47	48	GND
+5Vout	49	50	GND

CN3

PD00	1	2	PD01
PD02	3	4	PD03
PD04	5	6	PD05
PD06	7	8	PD07
PD10	9	10	PD11
PD12	11	12	PD13
PD14	13	14	PD15
PD16	15	16	PD17
GND	17	18	GND
+5Vout	19	20	+5Vout

Layout

0.350   3.250

3.775
3.775

2   20
1   19

CN3

PPI1

50 49

CN0   PPI0   CN1

SW1

JP1 JP2

2 1   JP3 JP4   JP5   JP6   49 50

0.200

0

DIO4264 V1.0 SV1.0

Dimensions are in inches

0   0.200   3.550   3.550