



PIO-D96U/PIO-D96SU

Universal PCI, 96-ch Digital I/O Board

Introduction

The PIO-D96U/D96SU card is designed as a direct replacement for the PIO-D96, without requiring any modification to the software or the driver.

The PIO-D96U provides four connectors for I/O wiring, while the PIO-D96SU provides a single high-density connector that reduces the amount of installation space required for the card in the computer.

The PIO-D96U/D96SU Universal PCI card supports the 3.3 V/5 V PCI bus, and provides 96 TTL Digital I/O lines that consist of twelve 8-bit bi-directional ports. Each group of three 8-bit ports is arranged on the connector as Port A (PA), Port B (PB) and Port C (PC), respectively, and all ports are configured as inputs on power-up or after a reset.

The PIO-D96U/D96SU card also includes an onboard Card ID switch that enables the board to be recognized via software if two or more boards are installed in the same computer.

Pin Assignments

Models	PIO-D96U	PIO-D96SU
Programmable DIO		
Channels	96	
Digital Input		
Compatibility	5 V/TTL	5 V/CMOS
Input Voltage	Logic 0: 0.8 V Max. ; Logic 1: 2.0 V Min.	
Response Speed	1 MHz	
Digital Output		
Compatibility	5 V/TTL	5 V/CMOS
Output Voltage	Logic 0: 0.4 V Max.; Logic 1: 2.4 V Min.	Logic 0: 0.1 V Max. Logic 1: 4.4 V Min.
Output Capability	Sink: 6 mA @ 0.33 V Source: 6 mA @ 4.77 V	Sink: 64 mA @ 0.8 V Source: 32 mA @ 2.0 V
Response Speed	1 MHz	
General		
Bus Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz	
Card ID	Yes (4-bit)	
Connectors	Female DB37 x 1 50-pin Box Header x 3	Female SCSI II 100-pin x 1
Power Consumption	600 mA @ +5 V	
Operating Temperature	0°C to +60°C	
Humidity	5 to 85% RH, Non-condensing	

Ordering Information

PIO-D96U CR	Universal PCI, 96-ch Digital I/O Board (RoHS)
PIO-D96SU CR	Universal PCI, 96-ch Digital I/O Board (RoHS)

Features

- Universal PCI (3.3 V/5 V) Interface
- 96-channel Digital I/O
- Twelve 8-bit Bi-directional Programmable I/O Ports
- All I/O Lines Buffered on the Board
- 4-channel Interrupt Source
- Buffer Output for Higher Driving Capability
- Supports Card ID (SMD Switch)
- DI/O Response Time approximately 1 μs (1 MHz)



Software

Drivers

- 32/64-bit Windows XP/2003/2008/7/8/10
- Linux DASYLab











Sample Programs

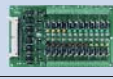

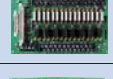

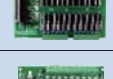



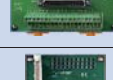
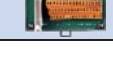
- DOS Lib and TC Demo LabVIEW Toolkit
- VB/VC/Delphi/BCB/MATLAB Demo VB.NET/C#.NET/VC.NET Demo

Hardware Specifications

PIO-D96U			PIO-D96SU		
Pin Assignment	Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment
N.C.	01	20 +5 V	PA_00	1	51 PA_10
N.C.	02	21 GND	PA_01	2	52 PA_11
PB_7	03	22 PC_7	PA_02	3	53 PA_12
PB_6	04	23 PC_6	PA_03	4	54 PA_13
PB_5	05	24 PC_5	PA_04	5	55 PA_14
PB_4	06	25 PC_4	PA_05	6	56 PA_15
PB_3	07	26 PC_3	PA_06	7	57 PA_16
PB_2	08	27 PC_2	PA_07	8	58 PA_17
PB_1	09	28 PC_1	PB_00	9	59 PB_10
PB_0	10	29 PC_0	PB_01	10	60 PB_11
GND	11	30 PA_7	PB_02	11	61 PB_12
N.C.	12	31 PA_6	PB_03	12	62 PB_13
GND	13	32 PA_5	PB_04	13	63 PB_14
N.C.	14	33 PA_4	PB_05	14	64 PB_15
GND	15	34 PA_3	PB_06	15	65 PB_16
N.C.	16	35 PA_2	PB_07	16	66 PB_17
GND	17	36 PA_1	PC_00	17	67 PC_10
+5 V	18	37 PA_0	PC_01	18	68 PC_11
GND	19		PC_02	19	69 PC_12
			PC_03	20	70 PC_13
			PC_04	21	71 PC_14
			PC_05	22	72 PC_15
			PC_06	23	73 PC_16
PC_7	01	02 GND	PC_07	24	74 PC_17
PC_6	03	04 GND	GND	25	75 GND
PC_5	05	06 GND	PA_20	26	76 PA_30
PC_4	07	08 GND	PA_21	27	77 PA_31
PC_3	09	10 GND	PA_22	28	78 PA_32
PC_2	11	12 GND	PA_23	29	79 PA_33
PC_1	13	14 GND	PA_24	30	80 PA_34
PC_0	15	16 GND	PA_25	31	81 PA_35
PB_7	17	18 GND	PA_26	32	82 PA_36
PB_6	19	20 GND	PA_27	33	83 PA_37
PB_5	21	22 GND	PB_20	34	84 PB_30
PB_4	23	24 GND	PB_21	35	85 PB_31
PB_3	25	26 GND	PB_22	36	86 PB_32
PB_2	27	28 GND	PB_23	37	87 PB_33
PB_1	29	30 GND	PB_24	38	88 PB_34
PB_0	31	32 GND	PB_25	39	89 PB_35
PA_7	33	34 GND	PB_26	40	90 PB_36
PA_6	35	36 GND	PB_27	41	91 PB_37
PA_5	37	38 GND	PC_20	42	92 PC_30
PA_4	39	40 GND	PC_21	43	93 PC_31
PA_3	41	42 GND	PC_22	44	94 PC_32
PA_2	43	44 GND	PC_23	45	95 PC_33
PA_1	45	46 GND	PC_24	46	96 PC_34
PA_0	47	48 GND	PC_25	47	97 PC_35
+5 V	49	50 GND	PC_26	48	98 PC_36
			PC_27	49	99 PC_37
			+5 V	50	100 +5 V
			CN2/CN3/CN4		CN1

Accessories

	CA-3710	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (45°))
	CA-3710D	DB-37 Male-Male D-sub cable 1 M (Cable for Daughter Board (180°))
	CA-3715DM-H	DB-37 Male-Male Cable, 1.5 M, 180°. (RoHS)
	CA-3730DM-H	DB-37 Male-Male Cable, 3.0 M, 180°. (RoHS)
	CA-3750DM	DB-37 Male-Male Cable, 5.0 M, 180°. (RoHS)
	CA-4002	37-pin Male D-sub connector with plastic cover.
	CA-5002	50-pin flat cable 20 cm
	CA-5015	50-pin flat cable 1.5 M
	CA-SCSI100-15	SCSI II 100-pin & 100-pin Male connector cable 1.5 M
	ADP-37/PCI	50-pin connector extender to 37-pin connector

	DB-24P	24-channel isolated D/I board
	DB-24R	24-channel relay board
	DB-24PR	24-channel power relay board
	DB-24POR	24-channel of PhotoMos Relay output board
	DB-24SSR	24-channel Photo Mos relay output board
	DB-24C	24-channel of open-collector output board
	DN-100	I/O Connector Block with DIN-Rail Mounting and 100-Pin SCSI II Connector
	DN-100-CA	I/O Connector Block with DIN-Rail Mounting and 100-Pin SCSI II Connector Include one CA-SCSI100-15 cable
	DN-37/DN-37-381	I/O Connector Block with DIN-Rail Mounting and 37-Pin D-Sub Connector
	DN-50/DN-50-381	I/O Connector Block with DIN-Rail Mounting and 50-Pin Header

