



### PCI-D96SU

Universal PCI, 96-ch, 32-bit Digital I/O Board

### PCI-D128SU

Universal PCI, 128-ch, 32-bit Digital I/O Board

#### Features

- Support the +3.3/+5 V PCI bus
- 96/128 Channels of Digital I/O
- Three/Four 32-bit Bi-direction I/O Ports
- Bi-direction Programmable I/O Ports under Software Control
- Digital Pattern Generator
- Pattern-matching and Change State Interrupt Monitoring
- DIO Operating Voltage: +1.8 V, +2.5 V, +3.3 V, +5 V
- Pull-high/Pull-low Jumpers for DI Channels
- Supports Card ID (SMD Switch)
- Supports a High-density SCSI II 100-pin Connector



#### Introduction

PCI-D96SU/PCI-D128SU are Universal PCI board. These cards provide 96/128 Digital I/O lines that consist of Three/Four **32-bit** bi-directional ports for use in a variety of Digital I/O applications. Each channel could be setting for Digital Input or Output. They provide a variety of operating voltage (+1.8 V, +2.5 V, +3.3 V and +5 V) for customers need.

The PCI-D96SU/D128SU card include 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. The pull-high/low jumpers allow the DI status to be predefined instead of remaining floating if the DI channels are disconnected or interrupted.

#### Hardware Specifications

Model	PCI-D96SU	PCI-D128SU
<b>Programmable DIO</b>		
Channels	96	128
<b>Digital Input</b>		
Digital Signal Voltage Levels		+1.8 V, +2.5 V, +3.3 V, +5 V
Input Voltage	+1.8 V	Logic 0: < 0.65 V; Logic 1: >1.2 V
	+2.5 V	Logic 0: < 0.7 V; Logic 1: >1.7 V
	+3.3 V	Logic 0: < 0.8 V; Logic 1: >2.0 V
	+5 V	Logic 0: < 1.5 V; Logic 1: >3.5 V
Response Speed		1 MHz
Trigger Mode		Software (Pattern Match, Change of Status)
Data Transfer		Polling, Interrupt
<b>Digital Output</b>		
Digital Signal Voltage Levels		+1.8 V, +2.5 V, +3.3 V, +5 V
Output Voltage	+1.8 V	Logic 0: < 0.65 V; Logic 1: >1.2 V
	+2.5 V	Logic 0: < 0.7 V; Logic 1: >1.7 V
	+3.3 V	Logic 0: < 0.8 V; Logic 1: >2.0 V
	+5 V	Logic 0: < 1.5 V; Logic 1: >3.5 V
Output Capability	+1.8 V	Sink: 1 mA; Source: 1 mA
	+2.5 V	Sink: 2 mA; Source: 2 mA
	+3.3 V	Sink: 4 mA; Source: 4 mA
	+5 V	Sink: 5 mA; Source: 5 mA
Response Speed		1 MHz
Operation Mode		Static update, Waveform generation
<b>General</b>		
Bus Type		3.3 V/5 V Universal PCI, 32-bit, 33 MHz
Data Bus		32-bit
Dimensions (L x W)		129 mm x 105 mm
Connectors		Female SCSI II 100-pin x 1 Female SCSI II 100-pin x 1 20-pin Box Header x 2
Power Consumption		600 mA @ +5 V 760 mA @ +5 V
Operating Temperature		0°C ~ +60°C
Humidity		5 ~ 85% RH, Non-condensing



### Software

#### Drivers

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

#### Sample Programs

DOS Lib and TC Demo

LabVIEW Demo

VB/VC/Delphi/BCB/VB.NET/C#.NET/VC.NET/MATLAB Demo

### Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
PA_00	01	PB_00
PA_01	02	PB_01
PA_02	03	PB_02
PA_03	04	PB_03
PA_04	05	PB_04
PA_05	06	PB_05
PA_06	07	PB_06
PA_07	08	PB_07
PA_08	09	PB_08
PA_09	10	PB_09
PA_10	11	PB_10
PA_11	12	PB_11
PA_12	13	PB_12
PA_13	14	PB_13
PA_14	15	PB_14
PA_15	16	PB_15
PA_16	17	PB_16
PA_17	18	PB_17
PA_18	19	PB_18
PA_19	20	PB_19
PA_20	21	PB_20
PA_21	22	PB_21
PA_22	23	PB_22
PA_23	24	PB_23
GND	25	GND
PA_24	26	PB_24
PA_25	27	PB_25
PA_26	28	PB_26
PA_27	29	PB_27
PA_28	30	PB_28
PA_29	31	PB_29
PA_30	32	PB_30
PA_31	33	PB_31
PC_00	34	PC_16
PC_01	35	PC_17
PC_02	36	PC_18
PC_03	37	PC_19
PC_04	38	PC_20
PC_05	39	PC_21
PC_06	40	PC_22
PC_07	41	PC_23
PC_08	42	PC_24
PC_09	43	PC_25
PC_10	44	PC_26
PC_11	45	PC_27
PC_12	46	PC_28
PC_13	47	PC_29
PC_14	48	PC_30
PC_15	49	PC_31
VCC	50	VCC

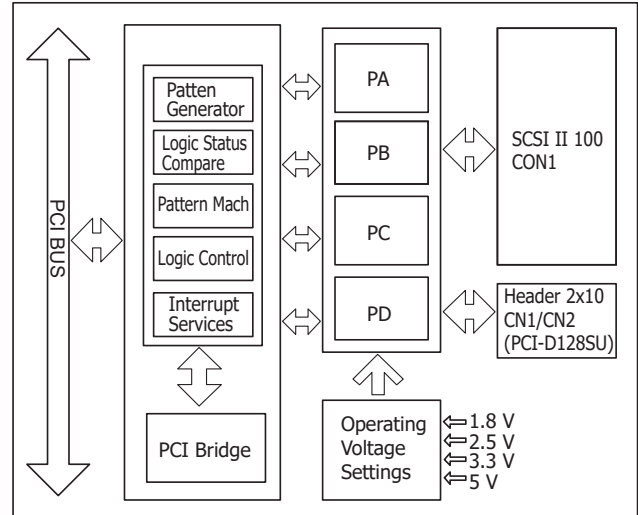
Pin Assignment	Terminal No.	Pin Assignment
PD_00	01	PD_08
PD_01	03	PD_09
PD_02	05	PD_10
PD_03	07	PD_11
PD_04	09	PD_12
PD_05	11	PD_13
PD_06	13	PD_14
PD_07	15	PD_15
GND	17	GND
VCC	19	--

CN1(PCI-D128SU only)

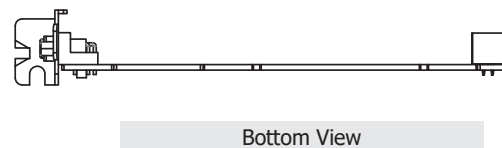
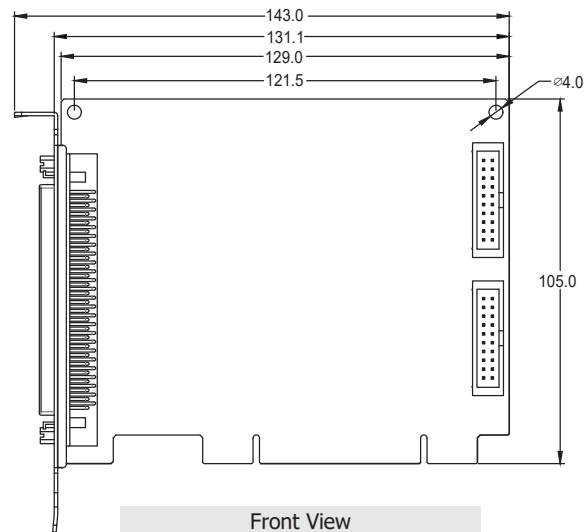
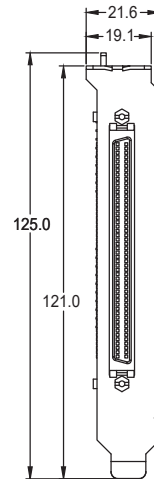
Pin Assignment	Terminal No.	Pin Assignment
PD_16	01	PD_24
PD_17	03	PD_25
PD_18	05	PD_26
PD_19	07	PD_27
PD_20	09	PD_28
PD_21	10	PD_29
PD_22	12	PD_30
PD_23	14	PD_31
GND	16	GND
VCC	18	--

CN2(PCI-D128SU only)

### Block Diagram



### Dimensions (Units: mm)



### Ordering Information

<b>PCI-D96SU CR</b>	Universal PCI, 96-ch Digital I/O Board (RoHS)
<b>PCI-D128SU CR</b>	Universal PCI, 128-ch, 32-bit Digital I/O Board (RoHS)

### 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

