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Find the *Acces PCIe-DIO-72* at our website: ***Click HERE***

PCIe-DIO-120

PCI Express Digital I/O Cards

FEATURES



- 120, 96, or 72 channel high current digital I/O's
- IRQ generation from Port C bit 3
- All I/O lines buffered
- On each 24-bit group, four and eight bit ports independently selectable as inputs or outputs
- Jumper selectable 10k ohm pull-up/pull-downs on I/O lines per four and eight bit ports
- Global jumper selectable VCCIO (5V, 3.3V, 2.5V, 1.8V) logic levels
- VCCIO voltage available to the user via 0.5A resettable fuse per 50 pin connector
- I/O ports globally tri-stateable through software
- Compatible with industry standard I/O racks like Grayhill, Opto 22, Western Reserve Controls, etc.

FACTORY OPTIONS

- Extended temp operation (-40° to +85°C)

FUNCTIONAL DESCRIPTION

This product is a x1 lane PCIe DIO board available in economy to high-performance models ranging from basic 72-, 96, and 120 DIO lines to advanced COS detection. The card emulates 8255 compatible chips using FPGA technology, providing up to 120 DIO lines. The DIO lines are grouped into three 8-bit ports: A, B, and C. Each 8-bit port is configured via software to function as either inputs or outputs. Port C can be further broken into two 4-bit nybbles via software and configured as either inputs or outputs. All DIO lines can be tristated as well using the corresponding software command.

Each DIO line is buffered and capable of outputting up to 32mA source/sink when configured for a 5V VCCIO level. The VCCIO logic level is globally configured via jumper selection as 5V, 3.3V, 2.5V or 1.8V. Also, ports A, B, C low nybble, and C high nybble are individually jumper configurable as pull-up or pull-down through 10kΩ resistor networks.

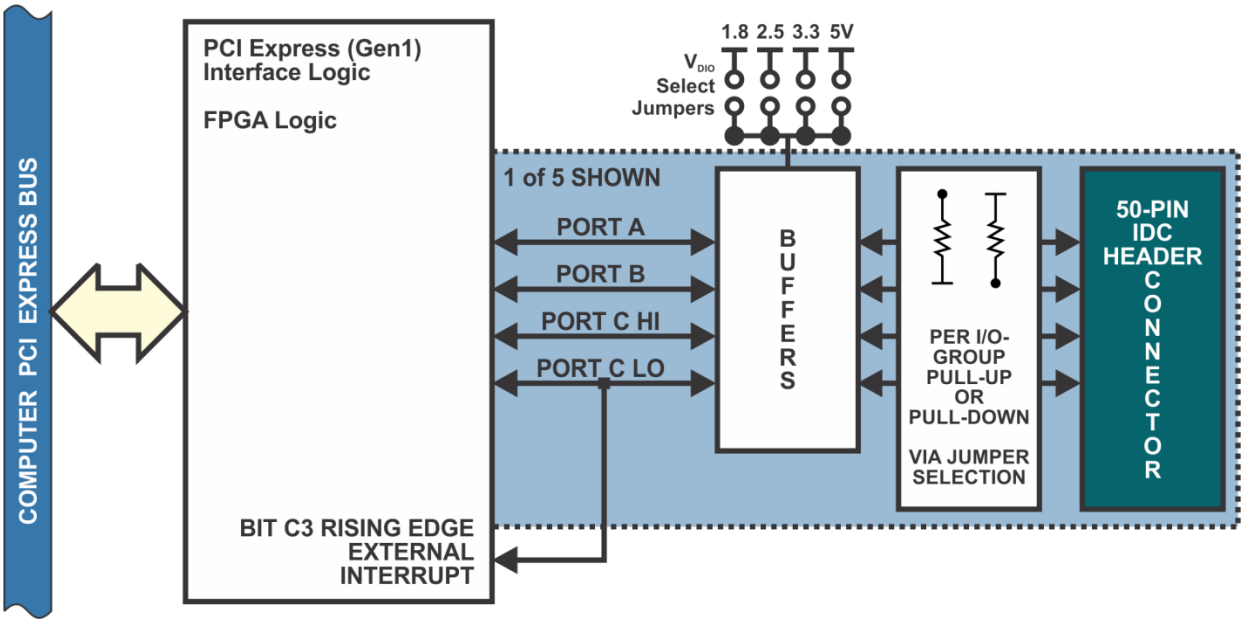
The card is 10.5 inches in length and 4.2 inches seated height. I/O wiring connections for this board are via 50 pin headers. Ribbon cables can be used to connect this card to termination panels through a cutout in the mounting bracket. Strain relief is provided at the cutout in this mounting bracket.

OPTIONAL ACCESSORIES

CAB50F-6	CAB50-6	STB-120CH	ROB-24	1781-A24A
6 Foot Female to Female Ribbon Cable Assembly	6 Foot Female to Edge Card Ribbon Cable Assembly	Screw terminal boards installed in T-BOX	24 Electromechanical Relays Board	Solid State Module Mounting Rack w/Modules
				

SOFTWARE

These cards are supported for use in most operating systems and include a free DOS, Linux (including macOS) and Windows XP -> 10, both 32- & 64-bit compatible, software package. This package contains sample programs and source code in 'Borland C/C++' for DOS, and Visual Basic, Delphi, and C# for Windows. Also incorporated is a graphical setup program in Windows. Linux support includes installation files and basic samples for programming from user level via an open source kernel driver. Third party support includes a Windows standard DLL interface usable from the most popular application programs, and includes example LabVIEW VIs. Embedded OS support includes Windows Xpe, WES7, etc.



BLOCK DIAGRAM

SPECIFICATIONS

Bus Type PCI Express 1x lane

Digital I/O

Lines	120; (5 Groups) Ports A, B, and C
Type	Emulates 8255 compatible chips
Logic Level	VCCIO
Pull-up/down	10k ohm, jumper selectable

VCCIO

Logic Levels	5V	
Low Inputs	≤ 1.5V	≤ 2uA
High Inputs	≥ 3.5V	≤ 2uA
Low Outputs	≤ 0.55V	32mA
High Outputs	≥ 3.8V	32mA
Logic Levels	**3.3V**	
Low Inputs	≤ 0.8V	≤ 2uA
High Inputs	≥ 2.0V	≤ 2uA
Low Outputs	≤ 0.55V	24mA
High Outputs	≥ 2.4V	24mA
Logic Levels	**2.5V**	
Low Inputs	≤ 0.7V	≤ 2uA
High Inputs	≥ 1.7V	≤ 2uA
Low Outputs	≤ 0.5V	8mA
High Outputs	≥ 1.9V	8mA
Logic Levels	**1.8V**	
Low Inputs	≤ 0.63V	≤ 2uA
High Inputs	≥ 1.17V	≤ 2uA
Low Outputs	≤ 0.45V	4mA
High Outputs	≥ 1.2V	4mA

Environmental

Operating Temperature	0° to 70°C optional -40° to +85°C
Storage Temperature	-55° to +150°C
Humidity	5% to 95% RH, w/o condensation
Card Dimensions	Length – 10.5" Height - 4.2" seated
RoHS	Compliant

ORDERING GUIDE

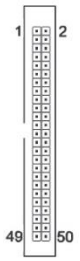
- PCIe-DIO-120 120-line DIO Card
- PCIe-DIO-96 96-line DIO Card
- PCIe-DIO-72 72-line DIO Card

Factory Options

- Extended temperature operation (-40° to +85°C)

50 Position Male Connector Pin Assignments

Pin	Signal Name		Pin	Signal Name
1	PC7		2	GND
3	PC6		4	GND
5	PC5		6	GND
7	PC4		8	GND
9	PC3*		10	GND
11	PC2		12	GND
13	PC1		14	GND
15	PC0		16	GND
17	PB7		18	GND
19	PB6		20	GND
21	PB5		22	GND
23	PB4		24	GND
25	PB3		26	GND
27	PB2		28	GND
29	PB1		30	GND
31	PB0		32	GND
33	PA7		34	GND
35	PA6		36	GND
37	PA5		38	GND
39	PA4		40	GND
41	PA3		42	GND
43	PA2		44	GND
45	PA1		46	GND
47	PA0		48	GND
49	VCCIO**		50	GND



*=Also an external interrupt
**=Protected by a 0.5A resettable fuse

ACCES I/O PRODUCTS, INC.

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