

FEATURES

- 144 high-current DIO lines
- IRQ generation from DIO Bit C3 on each connector
- DIO lines buffered
- Five 50 pin male headers on side of card, one DB37F on mounting bracket
- Four and eight bit ports independently selectable for inputs or outputs
- Jumper selectable 10k ohm Pull-up/Pull-down resistors on DIO lines
- Jumper selectable VCCIO (5V, 3.3V, 2.5V, 1.8V)
- VCCIO voltage available to the user via 0.5A resettable fuse



FACTORY OPTIONS

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







FUNCTIONAL DESCRIPTION

This product is a x1 lane PCIe DIO board with basic DIO and interrupt generation capabilities. The card emulates six 8255 compatible chips, providing 144 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 is further broken into two 4-bit nybbles via software, configured as either inputs or outputs.

Each DIO line is buffered and capable of up to 32mA source/sink. 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.

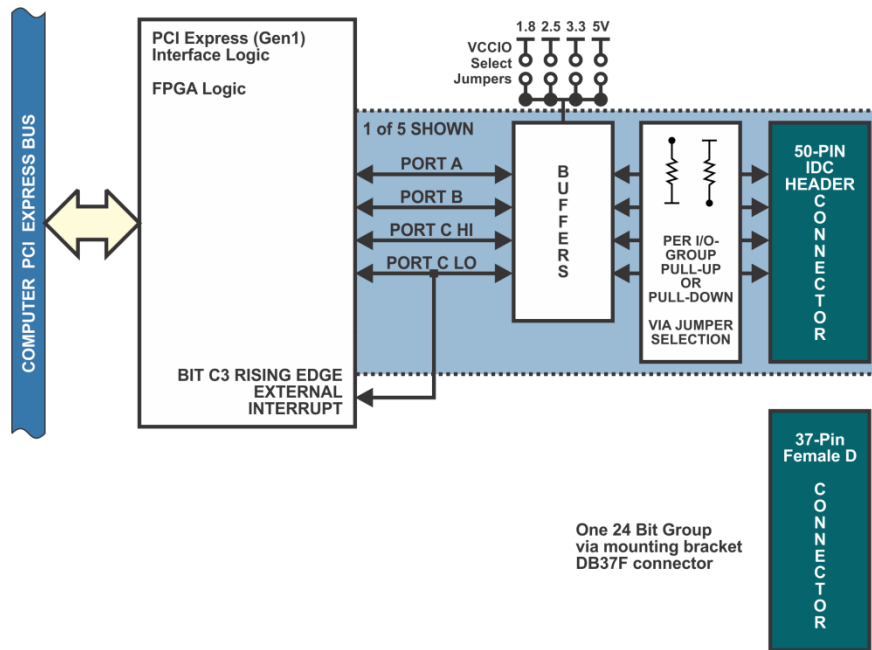
The card is 10.5 inches in length and 4.2 inches seated height. I/O wiring for this board is via a right angle DB37F on the mounting bracket and 50-pin male header connectors. Ribbon cables can be used to connect this card to termination panels and are secured using an included adjacent mounting bracket with strain relief bars to bring the cables out of the PC case.

OPTIONAL ACCESSORIES

CAB50-6	CAB50F-X	STB-37	STB-120CH	STB-50	DIN-SNAP-6
Female to Edge Ribbon Cable for solid state rack	F/F Ribbon Cable Assembly, X=length in feet	Screw terminal board mounted on standoffs with bread-board area	50-Pin Multi-Header Screw Terminal Board for 120 DIO lines	Screw terminal board, panel mount on SNAP-TRACK or DIN-SNAP	SNAP-TRACK for DIN-rail mounting one STB-50
					

SOFTWARE

The card comes with a free DOS/Linux/Windows (XP and newer) software package containing drivers, utilities, a graphical settings program to help configure option jumpers etc., and sample programs (with source) in Visual Basic, C#, Delphi, and Visual C++ for Windows. Linux support includes basic Comedi and direct-register source with tips on using the card from Python and other modern environments. Our Windows-standard DLLs can be used from all the most popular application programs including LabVIEW and even most "office applications". Embedded OS support includes XPe, all flavors of Windows Embedded Standard, and more...including VxWorks and QNX.



BLOCK DIAGRAM

SPECIFICATIONS

Digital I/O

Lines	144; Ports A, B, and C
Type	8255 compatible
Logic Level	VCCIO jumper selectable
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

ORDERING GUIDE

- PCIe-DIO-144 144-line DIO Card

Factory Options

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