

# PCIe-DIO24

## Specifications



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# Specifications

All specifications are subject to change without notice.

Typical for 25 °C unless otherwise specified.

## Digital input / output

Table 1. Digital I/O specifications

Digital type	82C55 Emulation	
Configuration	2 banks of 8, 2 banks of 4, programmable by bank as input or output	
Output	Ports A and B: 74HC245A Port C: 74HC126	
Input	Ports A and B: 74HC245A Port C: 74HC125	
Number of channels	24 I/O	
Switch State	Board Silk Screen Reference: S1 - Default +5V	
3.3 V	Output high	2.8 volts min @ -2.5 mA
	Output low	0.3 volts max @ 2.5 mA
	Input high	2.6 volts min, 3.6 volts absolute max
	Input low	1.3 volts max, -0.5 volts absolute min
5 V	Output high	4.5 volts min @ -2.5 mA
	Output low	0.3 volts max @ 2.5 mA
	Input high	2.6 volts min, 5.5 volts absolute max
	Input low	1.3 volts max, -0.5 volts absolute min
Power-up / reset state	Input mode (10 kΩ impedance from pull-up or pull-down)	
Pull-up/pull-down resistors	EEPROM stored - Software Programmable driven by 74ACT244 through 10 kΩ bussed resistor networks (shipped in the pull-up state)	
Interrupt enable	External (IRQ ENABLE, active low, disabled by default through internal resistor to TTL high) and programmable through PCI9030; 0 = disabled, 1 = enabled (default)	
Interrupt sources	External source (IRQ INPUT), polarity programmable through PCI9030; 1 = active high, 0 = active low (default)	

## Power Consumption

Table 2. Power consumption specifications

+3.3 V operating	515 mA typical
+3.3 V with 5 V I/O	520 mA typical
+V <sub>DIO</sub> User Output	125 mA max. @ +5V; 375 mA max. @ +3.3 V
Fuses: +V <sub>DIO</sub> User Output +12 V	<a href="#">0452.375</a> - Littelfuse 0.375A NANO <sup>2</sup> ® Slo-Blo <sup>®</sup> Subminiature Surface Mount Fuse

## Environmental

Table 3. Environmental specifications

Operating temperature range	0 to 50 °C
Storage temperature range	-20 to 70 °C
Humidity	0 to 90% non-condensing

## Mechanical

Table 4. Environmental specifications

Card dimensions	167.4 mm (L) x 111.2 mm (H) x 18.72 mm (W max) 6.59" (L) x 4.38" (H) x 0.74" (W max)
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## General

Table 5. General specifications

Bus Type	PCI Express 1.1
Bus Width	x1 lane PCI Express

## Main connector and pin out

Table 6. Main connector specifications

Connector type	37-pin D-type	
Compatible cables	C37FF-x unshielded ribbon cable. x = length in feet. C37FFS-x cable shielded round cable. x = length in feet.	
Compatible accessory products (with the C37FF-x or C37FFS-x cable)	SCB-37 CIO-MINI37 CIO-MINI37-VERT	
Compatible accessory products with S1 in the +5 V position (with the C37FF-x or C37FFS-x cable)	CIO-ERB08 CIO-SERB08 CIO-ERB24	SSR-RACK08 SSR-RACK24

Table 7. Main connector pin out

Pin	Signal Name	Pin	Signal Name
1	IRQ INPUT	20	+V <sub>DIO</sub> *
2	IRQ ENABLE	21	GND
3	Port B7	22	Port C7
4	Port B6	23	Port C6
5	Port B5	24	Port C5
6	Port B4	25	Port C4
7	Port B3	26	Port C3
8	Port B2	27	Port C2
9	Port B1	28	Port C1
10	Port B0	29	Port C0
11	GND	30	Port A7
12	OPEN	31	Port A6
13	GND	32	Port A5
14	OPEN	33	Port A4
15	GND	34	Port A3
16	+12V*	35	Port A2
17	GND	36	Port A1
18	+V <sub>DIO</sub> *	37	Port A0
19	GND		

\* Protected by slow blow fuses rated at 0.375 A. One fuse protects pin 16 (+12V), and the second fuse protects pin 18 (+V<sub>DIO</sub>) and pin 20 (+V<sub>DIO</sub>).

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