CIO-DIO24H

Specifications

Document Revision 7.1, February, 2010

Specifications

Typical for 25 °C unless otherwise specified.

Specifications in *italic* text are guaranteed by design.

Digital Input / Output

Table 1. Digital input/output specifications

Digital type	*82C55, mode 0 emulation* ▪ *Output: 74S244* ▪ *Input: 74LS373*
Configuration	*2 banks of 8, 2 banks of 4, programmable by bank as input or output*
Number of channels	*24 I/O*
Output high	*2.4 volts min @ -15 mA*
Output low	*0.5 volts max @ 64 mA*
Input high	*2.0 volts min, 7 volts absolute max*
Input low	*0.8 volts max, -0.5 volts absolute min*
Power-up / reset state	*Input mode (high impedance)*
Interrupts	2 through 7, jumper selectable
Interrupt enable	External (IR Enable), logic low enabled (disabled by default via internal 10k resistor to +5V)
Interrupt sources	External (IR Input), rising edge
Miscellaneous	Locations provided for installation of pull-up or pull-down resistors.

Power consumption

Table 2. Power consumption specifications

Parameter	**Specification**
+5V quiescent	▪ All ports input mode: 550 mA typical, 700 maximum ▪ All ports output mode, all bits low: 500 mA typical ▪ All ports output mode, all bits high: 360 mA typical

Environmental

Table 3. Environmental specifications

Operating temperature range	*0 to 70 °C*
Storage temperature range	*-40 to +100 °C*
Humidity	*0 to 90% non-condensing*

Main connector and pin out

Table 4. Connector specifications

Connector type	37-pin male "D" connector
Compatible cables	C37FF-x C37-FFS-x DFCON-37 (D-connector, D-shell, and termination pins to construct your own cable)
Compatible accessory products with the C37FF-x cable and C37FFS-x cable	CIO-MINI37 CIO-SPADE50 SSR-RACK08 SSR-RACK24 CIO-ERB08 CIO-ERB24

Table 5. Connector pin out

Pin	Signal Name	Pin	Signal Name
1	IR Input	20	+5V
2	IR Enable	21	GND
3	FIRSPORTB Bit 7	22	FIRSPORTC Bit 7
4	FIRSPORTB Bit 6	23	FIRSPORTC Bit 6
5	FIRSPORTB Bit 5	24	FIRSPORTC Bit 5
6	FIRSPORTB Bit 4	25	FIRSPORTC Bit 4
7	FIRSPORTB Bit 3	26	FIRSPORTC Bit 3
8	FIRSPORTB Bit 2	27	FIRSPORTC Bit 2
9	FIRSPORTB Bit 1	28	FIRSPORTC Bit 1
10	FIRSPORTB Bit 0	29	FIRSPORTC Bit 0
11	GND	30	FIRSPORTA Bit 7
12	-5V	31	FIRSPORTA Bit 6
13	GND	32	FIRSPORTA Bit 5
14	-12V	33	FIRSPORTA Bit 4
15	GND	34	FIRSPORTA Bit 3
16	+12V	35	FIRSPORTA Bit 2
17	GND	36	FIRSPORTA Bit 1
18	+5V	37	FIRSPORTA Bit 0
19	GND		

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