

CIO-DIO24

Specifications



**MEASUREMENT
COMPUTING™**

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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

| | |
|-------------------------------|--|
| <i>Digital type</i> | 82C55 |
| <i>Configuration</i> | 2 banks of 8, 2 banks of 4, programmable by bank as input or output |
| <i>Number of channels</i> | 24 I/O |
| <i>Output high</i> | 3.0 volts min @ -2.5 mA |
| <i>Output low</i> | 0.4 volts max @ 2.5 mA |
| <i>Input high</i> | 2.0 volts min, 5.5 volts absolute max |
| <i>Input low</i> | 0.8 volts max, -0.5 volts absolute min |
| <i>Power-up / reset state</i> | 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 | 170 mA typical, 270 mA max |

Environmental

Table 3. Environmental specifications

| | |
|------------------------------------|-------------------------|
| <i>Operating temperature range</i> | 0 to 70 °C |
| <i>Storage temperature range</i> | -40 to +100 °C |
| <i>Humidity</i> | 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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