

Specifications

CIO-DIO96



**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. DIO specifications

| | |
|------------------------|---|
| Digital type | 82C55 |
| Configuration | 8 banks of 8, 8 banks of 4, programmable by bank as input or output |
| Number of channels | 96 I/O |
| Output high | 3.0 volts min @ -2.5mA |
| Output low | 0.4 volts max @ 2.5mA |
| Input high | 2.0 volts min, 5.5 volts absolute max |
| Input low | 0.8 volts max, -0.5 volts absolute min |
| Power-up / reset state | Input mode (high impedance) |

Power consumption

Table 2. Power consumption specifications

| | |
|---------------|---------------------------|
| +5V quiescent | 60 mA typical, 205 mA max |
|---------------|---------------------------|

Environmental

Table 3. Environmental specifications

| | |
|------------------------------------|-------------------------|
| <i>Operating temperature range</i> | 0 to 50 °C |
| <i>Storage temperature range</i> | -40 to +100 °C |
| <i>Humidity</i> | 0 to 90% non-condensing |

Main connectors and pin out

Table 4. Connector specifications

| | |
|--|--|
| Connector type | (2) 50-pin shrouded male header connectors: P1 and P2 |
| Compatible cables | C50FF-x |
| Compatible accessory products with the C50FF-x | CIO-TERM100 CIO-SPADE50 CIO-MINI50 SSR-RACK24, SSR-RACK48 CIO-ERB24, CIO-ERB48 |

Table 5. P1 pin out

| Pin | Signal name | Pin | Signal name |
|-----|-------------------|-----|-------------------|
| 50 | GND | 49 | +5V |
| 48 | FIRSTPORTC Bit 0 | 47 | FIRSTPORTC Bit 1 |
| 46 | FIRSTPORTC Bit 2 | 45 | FIRSTPORTC Bit 3 |
| 44 | FIRSTPORTC Bit 4 | 43 | FIRSTPORTC Bit 5 |
| 42 | FIRSTPORTC Bit 6 | 41 | FIRSTPORTC Bit 7 |
| 40 | FIRSTPORTB Bit 0 | 39 | FIRSTPORTB Bit 1 |
| 38 | FIRSTPORTB Bit 2 | 37 | FIRSTPORTB Bit 3 |
| 36 | FIRSTPORTB Bit 4 | 35 | FIRSTPORTB Bit 5 |
| 34 | FIRSTPORTB Bit 6 | 33 | FIRSTPORTB Bit 7 |
| 32 | FIRSTPORTA Bit 0 | 31 | FIRSTPORTA Bit 1 |
| 30 | FIRSTPORTA Bit 2 | 29 | FIRSTPORTA Bit 3 |
| 28 | FIRSTPORTA Bit 4 | 27 | FIRSTPORTA Bit 5 |
| 26 | FIRSTPORTA Bit 6 | 25 | FIRSTPORTA Bit 7 |
| 24 | SECONDPORTC Bit 0 | 23 | SECONDPORTC Bit 1 |
| 22 | SECONDPORTC Bit 2 | 21 | SECONDPORTC Bit 3 |
| 20 | SECONDPORTC Bit 4 | 19 | SECONDPORTC Bit 5 |
| 18 | SECONDPORTC Bit 6 | 17 | SECONDPORTC Bit 7 |
| 16 | SECONDPORTB Bit 0 | 15 | SECONDPORTB Bit 1 |
| 14 | SECONDPORTB Bit 2 | 13 | SECONDPORTB Bit 3 |
| 12 | SECONDPORTB Bit 4 | 11 | SECONDPORTB Bit 5 |
| 10 | SECONDPORTB Bit 6 | 9 | SECONDPORTB Bit 7 |
| 8 | SECONDPORTA Bit 0 | 7 | SECONDPORTA Bit 1 |
| 6 | SECONDPORTA Bit 2 | 5 | SECONDPORTA Bit 3 |
| 4 | SECONDPORTA Bit 4 | 3 | SECONDPORTA Bit 5 |
| 2 | SECONDPORTA Bit 6 | 1 | SECONDPORTA Bit 7 |

Table 6. P2 pin out

| Pin | Signal name | Pin | Signal name |
|-----|------------------|-----|------------------|
| 50 | GND | 49 | +5V |
| 48 | THIRDPORC Bit 0 | 47 | THIRDPORC Bit 1 |
| 46 | THIRDPORC Bit 2 | 45 | THIRDPORC Bit 3 |
| 44 | THIRDPORC Bit 4 | 43 | THIRDPORC Bit 5 |
| 42 | THIRDPORC Bit 6 | 41 | THIRDPORC Bit 7 |
| 40 | THIRDPORB Bit 0 | 39 | THIRDPORB Bit 1 |
| 38 | THIRDPORB Bit 2 | 37 | THIRDPORB Bit 3 |
| 36 | THIRDPORB Bit 4 | 35 | THIRDPORB Bit 5 |
| 34 | THIRDPORB Bit 6 | 33 | THIRDPORB Bit 7 |
| 32 | THIRDPOR A Bit 0 | 31 | THIRDPOR A Bit 1 |
| 30 | THIRDPOR A Bit 2 | 29 | THIRDPOR A Bit 3 |
| 28 | THIRDPOR A Bit 4 | 27 | THIRDPOR A Bit 5 |
| 26 | THIRDPOR A Bit 6 | 25 | THIRDPOR A Bit 7 |
| 24 | FOURTHPORC Bit 0 | 23 | FOURTHPORC Bit 1 |
| 22 | FOURTHPORC Bit 2 | 21 | FOURTHPORC Bit 3 |
| 20 | FOURTHPORC Bit 4 | 19 | FOURTHPORC Bit 5 |
| 18 | FOURTHPORC Bit 6 | 17 | FOURTHPORC Bit 7 |
| 16 | FOURTHPORB Bit 0 | 15 | FOURTHPORB Bit 1 |
| 14 | FOURTHPORB Bit 2 | 13 | FOURTHPORB Bit 3 |
| 12 | FOURTHPORB Bit 4 | 11 | FOURTHPORB Bit 5 |
| 10 | FOURTHPORB Bit 6 | 9 | FOURTHPORB Bit 7 |
| 8 | FOURTHPORA Bit 0 | 7 | FOURTHPORA Bit 1 |
| 6 | FOURTHPORA Bit 2 | 5 | FOURTHPORA Bit 3 |
| 4 | FOURTHPORA Bit 4 | 3 | FOURTHPORA Bit 5 |
| 2 | FOURTHPORA Bit 6 | 1 | FOURTHPORA Bit 7 |

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