

Specifications

PCIe-DIO96H



**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 I/O specifications

| | |
|-----------------------------|--|
| Digital type | 8255 emulation, Mode 0 |
| Output | 74ABT244 |
| Input | 74LV373A |
| Configuration | 8 banks of 8, 8 banks of 4, programmable by bank as input or output |
| Number of I/O | 96 |
| Output high | 2.0 volts min @ -15 mA |
| <i>Output low</i> | <i>0.55 volts max @ 64 mA</i> |
| <i>Input high</i> | <i>2.0 volts min, 5.5 volts absolute max</i> |
| <i>Input low</i> | <i>0.8 volts max, -0.5 volts absolute min</i> |
| Power-up / reset state | Input mode (10 k Ω impedance from pull-up or pull-down) |
| Pull-up/pull-down resistors | EEPROM stored - Software Programmable driven by 74ACT244 through 10 k Ω bussed resistor networks (shipped in the pull-up state) |

Power Consumption

Table 2. Power consumption specifications

| | |
|--------------------------|---|
| +3.3 V Operating (bus) | 484 mA max. (405 mA typ.) |
| +5 V Operating (Molex) | 1.74 A max. (54 mA typ. no load) |
| +5 V User Output (Molex) | 1 A max. per +5 V User Output (pins 49 & 99, protected with 1 A slow blow fuse) |
| +5 V User Output Fuse | 1 A Littelfuse ® Slo-Blo ® Fuse P/N: 0452001. or equivalent |

Environmental

Table 3. Environmental specifications

| | |
|------------------------------------|--------------------------------|
| <i>Operating temperature range</i> | <i>0 to 50 °C</i> |
| <i>Storage temperature range</i> | <i>-35 to 80 °C</i> |
| <i>Humidity</i> | <i>0 to 90% non-condensing</i> |

Mechanical

Table 4. Mechanical specifications

| | |
|-----------------|--|
| Card dimensions | 167.6 mm (L) x 106.6 mm (H) x 14.48 mm (W) |
|-----------------|--|

General

Table 5. General Specifications

| | |
|-----------|---------------------|
| Bus Type | PCI Express 1.0a |
| Bus Width | x1 lane PCI Express |

Main connector and pin out

Table 6. Main connector specifications

| | | |
|-------------------------------|---|---|
| Connector type | 100-pin, high-density | |
| Compatible cables | C100FF- x | |
| Compatible accessory products | CIO-MINI50 (two devices are required) CIO-TERM100 SCB-50 CIO-ERB24 CIO-SERB24 | CIO-ERB48 CIO-SERB48 SSR-RACK24 SSR-RACK48 |

Table 7. Main connector pin out

| Pin | Signal name | Pin | Signal name |
|-----|-------------------|-----|-------------------|
| 100 | GND | 50 | GND |
| 99 | +5V User Output* | 49 | +5V User Output* |
| 98 | THIRDPORTC Bit 0 | 48 | FIRSTPORTC Bit 0 |
| 97 | THIRDPORTC Bit 1 | 47 | FIRSTPORTC Bit 1 |
| 96 | THIRDPORTC Bit 2 | 46 | FIRSTPORTC Bit 2 |
| 95 | THIRDPORTC Bit 3 | 45 | FIRSTPORTC Bit 3 |
| 94 | THIRDPORTC Bit 4 | 44 | FIRSTPORTC Bit 4 |
| 93 | THIRDPORTC Bit 5 | 43 | FIRSTPORTC Bit 5 |
| 92 | THIRDPORTC Bit 6 | 42 | FIRSTPORTC Bit 6 |
| 91 | THIRDPORTC Bit 7 | 41 | FIRSTPORTC Bit 7 |
| 90 | THIRDPORTB Bit 0 | 40 | FIRSTPORTB Bit 0 |
| 89 | THIRDPORTB Bit 1 | 39 | FIRSTPORTB Bit 1 |
| 88 | THIRDPORTB Bit 2 | 38 | FIRSTPORTB Bit 2 |
| 87 | THIRDPORTB Bit 3 | 37 | FIRSTPORTB Bit 3 |
| 86 | THIRDPORTB Bit 4 | 36 | FIRSTPORTB Bit 4 |
| 85 | THIRDPORTB Bit 5 | 35 | FIRSTPORTB Bit 5 |
| 84 | THIRDPORTB Bit 6 | 34 | FIRSTPORTB Bit 6 |
| 83 | THIRDPORTB Bit 7 | 33 | FIRSTPORTB Bit 7 |
| 82 | THIRDPORTA Bit 0 | 32 | FIRSTPORTA Bit 0 |
| 81 | THIRDPORTA Bit 1 | 31 | FIRSTPORTA Bit 1 |
| 80 | THIRDPORTA Bit 2 | 30 | FIRSTPORTA Bit 2 |
| 78 | THIRDPORTA Bit 3 | 29 | FIRSTPORTA Bit 3 |
| 78 | THIRDPORTA Bit 4 | 28 | FIRSTPORTA Bit 4 |
| 77 | THIRDPORTA Bit 5 | 27 | FIRSTPORTA Bit 5 |
| 76 | THIRDPORTA Bit 6 | 26 | FIRSTPORTA Bit 6 |
| 75 | THIRDPORTA Bit 7 | 25 | FIRSTPORTA Bit 7 |
| 74 | FOURTHPORTC Bit 0 | 24 | SECONDPORTC Bit 0 |
| 73 | FOURTHPORTC Bit 1 | 23 | SECONDPORTC Bit 1 |
| 72 | FOURTHPORTC Bit 2 | 22 | SECONDPORTC Bit 2 |
| 71 | FOURTHPORTC Bit 3 | 21 | SECONDPORTC Bit 3 |
| 70 | FOURTHPORTC Bit 4 | 20 | SECONDPORTC Bit 4 |
| 69 | FOURTHPORTC Bit 5 | 19 | SECONDPORTC Bit 5 |
| 68 | FOURTHPORTC Bit 6 | 18 | SECONDPORTC Bit 6 |
| 67 | FOURTHPORTC Bit 7 | 17 | SECONDPORTC Bit 7 |
| 66 | FOURTHPORTB Bit 0 | 16 | SECONDPORTB Bit 0 |
| 65 | FOURTHPORTB Bit 1 | 15 | SECONDPORTB Bit 1 |
| 64 | FOURTHPORTB Bit 2 | 14 | SECONDPORTB Bit 2 |
| 63 | FOURTHPORTB Bit 3 | 13 | SECONDPORTB Bit 3 |
| 62 | FOURTHPORTB Bit 4 | 12 | SECONDPORTB Bit 4 |
| 61 | FOURTHPORTB Bit 5 | 11 | SECONDPORTB Bit 5 |
| 60 | FOURTHPORTB Bit 6 | 10 | SECONDPORTB Bit 6 |
| 59 | FOURTHPORTB Bit 7 | 9 | SECONDPORTB Bit 7 |
| 58 | FOURTHPORTA Bit 0 | 8 | SECONDPORTA Bit 0 |
| 57 | FOURTHPORTA Bit 1 | 7 | SECONDPORTA Bit 1 |
| 56 | FOURTHPORTA Bit 2 | 6 | SECONDPORTA Bit 2 |
| 55 | FOURTHPORTA Bit 3 | 5 | SECONDPORTA Bit 3 |
| 54 | FOURTHPORTA Bit 4 | 4 | SECONDPORTA Bit 4 |
| 53 | FOURTHPORTA Bit 5 | 3 | SECONDPORTA Bit 5 |
| 52 | FOURTHPORTA Bit 6 | 2 | SECONDPORTA Bit 6 |
| 51 | FOURTHPORTA Bit 7 | 1 | SECONDPORTA Bit 7 |

* Protected by individual slow blow fuses rated at 1 A.

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