

# PCI-DIO96

## Specifications



**MEASUREMENT  
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# Specifications

Typical for 25 °C unless otherwise specified.

Specifications in *italic text* are guaranteed by design.

## Power consumption

Table 1. Power consumption specifications

|               |            |
|---------------|------------|
| +5V quiescent | 150 mA max |
|---------------|------------|

## Digital input/output

Table 2. Digital input/output specifications

|                             |                                                                                    |
|-----------------------------|------------------------------------------------------------------------------------|
| Digital type                | Four 82C55                                                                         |
| Number of I/O               | 96                                                                                 |
| Configuration per 82C55     | 2 banks of 8 and 2 banks of 4 or<br>3 banks of 8 or<br>2 banks of 8 with handshake |
| <i>Output high</i>          | <i>3.0 volts min @ -2.5 mA</i>                                                     |
| <i>Output low</i>           | <i>0.4 volts max @ 2.5 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 (high impedance)                                                        |
| Pull-up/pull-down resistors | User installed. Dual footprint allows pull-up or pull-down configuration           |

## Counters

Table 3. Counters specifications

|                      |                                     |
|----------------------|-------------------------------------|
| Counter type         | 82C54                               |
| Configuration        | 3 counters, 16 bits each            |
| Counter 1            | Source: 2 MHz (xtal /8)             |
|                      | Gate: Tied to +5V                   |
|                      | Output: Selectable Interrupt source |
| Counter 2            | Source: Counter 1 OUT               |
|                      | Gate: Tied to +5V                   |
|                      | Output: Selectable interrupt source |
| Counter 3 - Not used | Source                              |
|                      | Gate                                |
|                      | Output                              |

## Interrupts

The interrupt control registers allow the four 82C55 devices and the 8254 counter timer to be used as interrupt sources.

Table 4. Interrupt specifications

|                      |                                                           |
|----------------------|-----------------------------------------------------------|
| Interrupt            | INTA# - mapped to IRQn via PCI BIOS at boot-time          |
| PCI Interrupt enable | Programmable through PLX9052 INTCSR register (INTCSR 4Ch) |
| Interrupt polarity   | High or low level. Programmable through PLX9052           |
|                      | Rising or falling edge. Programmable through PLX9052      |

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Interrupt sources | <p>82C55 in Mode 1 or Mode 2 interrupt configuration:</p> <p>First Port C0<br/>First Port C3<br/>Second Port C0<br/>Second Port C3<br/>Third Port C0<br/>Third Port C3<br/>Fourth Port C0<br/>Fourth Port C3</p> <p>Note: Any interrupt source above may be individually enabled.</p> <p>82C54 Counter<br/>Counter 1 OUT<br/>Counter 2 OUT</p> <p>Note: Counter 1 and 2 interrupts are exclusive. Only one counter may be enabled as an interrupt source at one time.</p> |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Crystal oscillator

Table 5. Crystal oscillator specifications

|                     |                |
|---------------------|----------------|
| Oscillator type     | AT-cut crystal |
| Frequency           | 16 MHz         |
| Frequency stability | ±100 ppm       |

## Environmental

Table 6. Environmental specifications

|                             |                         |
|-----------------------------|-------------------------|
| Operating temperature range | 0 to 70 °C              |
| Storage temperature range   | -40 to 70 °C            |
| Humidity                    | 0 to 95% non-condensing |

## Mechanical

Table 7. Mechanical specifications

|                 |                                                            |
|-----------------|------------------------------------------------------------|
| Card dimensions | PCI short card: 136.0 mm (L) x 100.6 mm (W) x 11.00 mm (H) |
|-----------------|------------------------------------------------------------|

## Main connector and pin out

Table 8. Board connectors, cables, and accessory equipment

|                               |                                                                                                                       |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Connector type                | 100 pin high-density Robinson-Nugent.                                                                                 |
| Compatibility                 | Pinout identical to PCI-DIO96H.<br>Compatible with CIO-DIO96H using C100FF-x.                                         |
| Compatible cables             | C100FF-x                                                                                                              |
| Compatible accessory products | <p>SCB50<br/>CIO-MINI50<br/>CIO-TERM100<br/>CIO-SPADE50<br/>CIO-ERB24<br/>CIO-ERB48<br/>SSR-RACK24<br/>SSR-RACK48</p> |

Table 9. Main connector pin out

| Signal name       | Pin |    | Pin | Signal name       |
|-------------------|-----|----|-----|-------------------|
| GND               | 100 | •• | 50  | GND               |
| +5V               | 99  | •• | 49  | +5V               |
| THIRDPORTC Bit 0  | 98  | •• | 48  | FIRSTPORTC Bit 0  |
| THIRDPORTC Bit 1  | 97  | •• | 47  | FIRSTPORTC Bit 1  |
| THIRDPORTC Bit 2  | 96  | •• | 46  | FIRSTPORTC Bit 2  |
| THIRDPORTC Bit 3  | 95  | •• | 45  | FIRSTPORTC Bit 3  |
| THIRDPORTC Bit 4  | 94  | •• | 44  | FIRSTPORTC Bit 4  |
| THIRDPORTC Bit 5  | 93  | •• | 43  | FIRSTPORTC Bit 5  |
| THIRDPORTC Bit 6  | 92  | •• | 42  | FIRSTPORTC Bit 6  |
| THIRDPORTC Bit 7  | 91  | •• | 41  | FIRSTPORTC Bit 7  |
| THIRDPORTB Bit 0  | 90  | •• | 40  | FIRSTPORTB Bit 0  |
| THIRDPORTB Bit 1  | 89  | •• | 39  | FIRSTPORTB Bit 1  |
| THIRDPORTB Bit 2  | 88  | •• | 38  | FIRSTPORTB Bit 2  |
| THIRDPORTB Bit 3  | 87  | •• | 37  | FIRSTPORTB Bit 3  |
| THIRDPORTB Bit 4  | 86  | •• | 36  | FIRSTPORTB Bit 4  |
| THIRDPORTB Bit 5  | 85  | •• | 35  | FIRSTPORTB Bit 5  |
| THIRDPORTB Bit 6  | 84  | •• | 34  | FIRSTPORTB Bit 6  |
| THIRDPORTB Bit 7  | 83  | •• | 33  | FIRSTPORTB Bit 7  |
| THIRDPORTA Bit 0  | 82  | •• | 32  | FIRSTPORTA Bit 0  |
| THIRDPORTA Bit 1  | 81  | •• | 31  | FIRSTPORTA Bit 1  |
| THIRDPORTA Bit 2  | 80  | •• | 30  | FIRSTPORTA Bit 2  |
| THIRDPORTA Bit 3  | 79  | •• | 29  | FIRSTPORTA Bit 3  |
| THIRDPORTA Bit 4  | 78  | •• | 28  | FIRSTPORTA Bit 4  |
| THIRDPORTA Bit 5  | 77  | •• | 27  | FIRSTPORTA Bit 5  |
| THIRDPORTA Bit 6  | 76  | •• | 26  | FIRSTPORTA Bit 6  |
| THIRDPORTA Bit 7  | 75  | •• | 25  | FIRSTPORTA Bit 7  |
| FOURTHPORTC Bit 0 | 74  | •• | 24  | SECONDPORTC Bit 0 |
| FOURTHPORTC Bit 1 | 73  | •• | 23  | SECONDPORTC Bit 1 |
| FOURTHPORTC Bit 2 | 72  | •• | 22  | SECONDPORTC Bit 2 |
| FOURTHPORTC Bit 3 | 71  | •• | 21  | SECONDPORTC Bit 3 |
| FOURTHPORTC Bit 4 | 70  | •• | 20  | SECONDPORTC Bit 4 |
| FOURTHPORTC Bit 5 | 69  | •• | 19  | SECONDPORTC Bit 5 |
| FOURTHPORTC Bit 6 | 68  | •• | 18  | SECONDPORTC Bit 6 |
| FOURTHPORTC Bit 7 | 67  | •• | 17  | SECONDPORTC Bit 7 |
| FOURTHPORTB Bit 0 | 66  | •• | 16  | SECONDPORTB Bit 0 |
| FOURTHPORTB Bit 1 | 65  | •• | 15  | SECONDPORTB Bit 1 |
| FOURTHPORTB Bit 2 | 64  | •• | 14  | SECONDPORTB Bit 2 |
| FOURTHPORTB Bit 3 | 63  | •• | 13  | SECONDPORTB Bit 3 |
| FOURTHPORTB Bit 4 | 62  | •• | 12  | SECONDPORTB Bit 4 |
| FOURTHPORTB Bit 5 | 61  | •• | 11  | SECONDPORTB Bit 5 |
| FOURTHPORTB Bit 6 | 60  | •• | 10  | SECONDPORTB Bit 6 |
| FOURTHPORTB Bit 7 | 59  | •• | 9   | SECONDPORTB Bit 7 |
| FOURTHPORTA Bit 0 | 58  | •• | 8   | SECONDPORTA Bit 0 |
| FOURTHPORTA Bit 1 | 57  | •• | 7   | SECONDPORTA Bit 1 |
| FOURTHPORTA Bit 2 | 56  | •• | 6   | SECONDPORTA Bit 2 |
| FOURTHPORTA Bit 3 | 55  | •• | 5   | SECONDPORTA Bit 3 |
| FOURTHPORTA Bit 4 | 54  | •• | 4   | SECONDPORTA Bit 4 |
| FOURTHPORTA Bit 5 | 53  | •• | 3   | SECONDPORTA Bit 5 |
| FOURTHPORTA Bit 6 | 52  | •• | 2   | SECONDPORTA Bit 6 |
| FOURTHPORTA Bit 7 | 51  | •• | 1   | SECONDPORTA Bit 7 |

PCI slot ↓

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