

PCI-8136CJ

6-CH Motion Interface and I/O Card - Replacement for Adlink's PCI-8136

Features (V2.0 version)

- 32-bit PCI bus, plug & play
- 6-CH 32-bit industrial counter for
 - A/B phase
 - CW/CCW
 - Pulse/direction
- 6-CH 32-bit position compare with interrupt function
- 6-CH 16-bit +/-10V analog outputs
- 6-CH 12-bit +/-10V analog inputs
- 19-CH DI, 7-CH open collector DO
- Digital I/Os and counters are 2500Vrms isolated

Introduction

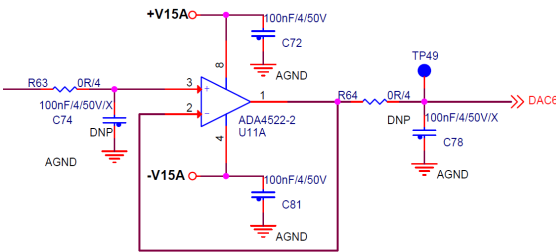
The PCI-8136CJ is a high performance industrial counter and Multi-I/O card.

- Analog Outputs: 6 channels
- Analog Inputs: 6 channels
- Digital Inputs: 19 channels
- Digital Outputs: 7 channels
- Pulse Input (Industrial Counter): 6 channels



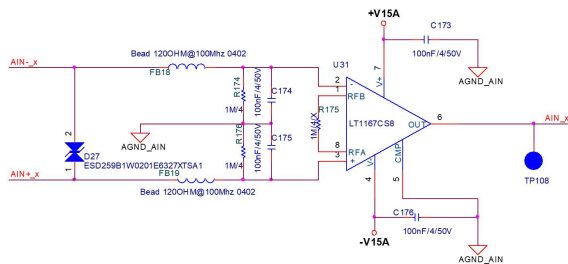
Analog Outputs

The PCI-8136CJ provides 6x 16-bit Digital-to-Analog converter channels. The output voltage ranges from -10V to +10V. The Analog outputs are all single ended with common ground "AGND".



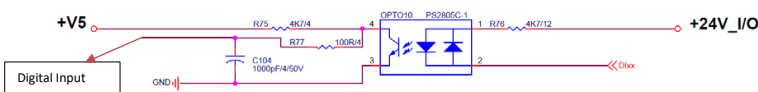
Analog Inputs

The PCI-8136CJ provides 6x 12-bit Differential Analog-to-Digital input channels. Input range is -10V to +10V, managed by precision instrumentation amplifiers.



Digital Inputs

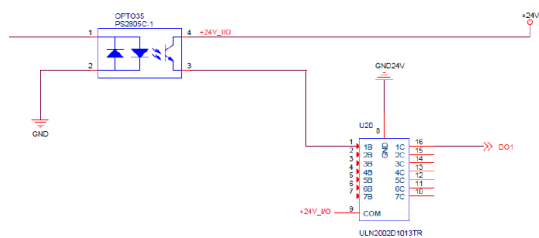
The PCI-8136CJ provides 19x digital inputs with 2500Vrms isolation. The system recognizes a logical '1' when no current goes from COM+ to a DIin and, Logical '0' is returned when current goes from COM+ to DIin. The max current through any DI must be less than 20mA.



Digital Outputs

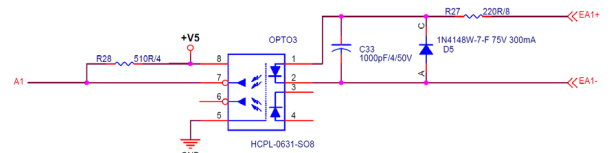
The PCI-8136CJ provides 7 open collector outputs with 2500Vrms isolation. The maximum output switching frequency is 10KHz, and the continuous output supply current is subject to 500mA (total), or 100mA/CH (typical), and 268mA/CH (max).

Example of one digital output circuitry



Pulse Inputs (Industrial Counter)

The PCI-8136CJ provides 6 differential pulse inputs with 2500Vrms isolation. The pulse mode is software programmable to be AB-phase, CW/CCW, or Pulse/Direction, and the counter speed goes up to 2MHz.



Software Support

- Linux
- QNX
- Source Code

Specifications

General Specifications

- Connectors
 - 100-pin SCSI-type connector
- Operating Temperature: 0°C ~ 60°C
- Storage Temperature: -20°C ~ 80°C
- Humidity: 5 ~ 85%, non-condensing
- Power Consumption
 - Slot power supply (input): +5V_{DC}, ±5%, 400mA max.
 - External power supply (input): +24V_{DC}, ±5%, 500mA max.
 - External power supply (output): +5V_{DC}, ±5%, 500mA, max.
- Dimensions: 164mm (L) x 98.4mm (H)

Pulse Inputs (Industrial Counter)

- 6 differential input channels
- 32-bit counter for AB-phase, CW/CCW, Pulse/Direction
- 2500Vrms optical isolation Max. counter speed: 3MHz

Analog Outputs

- 6 output channels(Single-Ended)
- Output range: bipolar ±10V
- 16-bit DAC resolution, 14-bit accuracy guarantee
- Settling time: 2 μs

Analog Inputs

- 6 Input channels (differential Inputs)
- Input range: bipolar ±10V
- 12-bit ADC resolution, 12-bit accuracy guarantee
- Conversion time: 2 μs

Ordering Information

PCI-8136CJ

General-purpose multi-I/O card

DIN-100S

Terminal board for PCI-8136CJ.

All specifications and photos are subject to change without prior notice

Digital Inputs

- 19 input channels
- Input voltage
 - Logical high: 3 ~ 24V
 - Logical low: 0 ~ 1.5V
- Input impedance: 4.7KΩ@0.5W
- Isolated voltage: 2500Vrms
- Throughput: 10KHz (0.1ms)

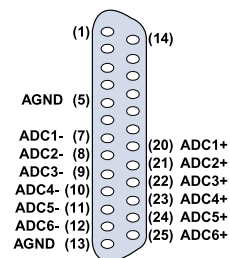
Digital Outputs

- 7 Output channels
- Output type: open collector
- Sink current
 - 100mA/Ch (typical)
 - 268mA/Ch (max.)
 - 500mA/total
- Isolated voltage: 2500Vrms
- Throughput: 10KHz (0.1ms)

Pin Assignment 100-PIN SCSI type

| | | | |
|--------|----|-----|------|
| AGND | 1 | 51 | AGND |
| DAC1 | 2 | 52 | DAC4 |
| DAC2 | 3 | 53 | DAC5 |
| DAC3 | 4 | 54 | DAC6 |
| VCC+5V | 5 | 55 | COM- |
| COM+ | 6 | 56 | COM- |
| COM+ | 7 | 57 | DI19 |
| COM+ | 8 | 58 | DO7 |
| DI01 | 9 | 59 | DI02 |
| DI07 | 10 | 60 | DI09 |
| DI08 | 11 | 61 | DI10 |
| DO1 | 12 | 62 | DO2 |
| DI03 | 13 | 63 | DI04 |
| DI11 | 14 | 64 | DI13 |
| DI12 | 15 | 65 | DI14 |
| DO3 | 16 | 66 | DO4 |
| DI05 | 17 | 67 | DI06 |
| DI15 | 18 | 68 | DI17 |
| DI16 | 19 | 69 | DI18 |
| DO5 | 20 | 70 | DO6 |
| EA1- | 21 | 71 | EA2- |
| EA1+ | 22 | 72 | EA2+ |
| EB1- | 23 | 73 | EB2- |
| EB1+ | 24 | 74 | EB2+ |
| EZ1- | 25 | 75 | EZ2- |
| EZ1+ | 26 | 76 | EZ2+ |
| EA3- | 27 | 77 | EA4- |
| EA3+ | 28 | 78 | EA4+ |
| EB3- | 29 | 79 | EB4- |
| EB3+ | 30 | 80 | EB4+ |
| EZ3- | 31 | 81 | EZ4- |
| EZ3+ | 32 | 82 | EZ4+ |
| EA5- | 33 | 83 | EA6- |
| EA5+ | 34 | 84 | EA6+ |
| EB5- | 35 | 85 | EB6- |
| EB5+ | 36 | 86 | EB6+ |
| EZ5- | 37 | 87 | EZ6- |
| EZ5+ | 38 | 88 | EZ6+ |
| | 39 | 89 | |
| | 40 | 90 | |
| | 41 | 91 | |
| | 42 | 92 | |
| | 43 | 93 | |
| | 44 | 94 | |
| | 45 | 95 | |
| | 46 | 96 | |
| | 47 | 97 | |
| | 48 | 98 | |
| | 49 | 99 | |
| | 50 | 100 | |

Pin Assignment of Analog Input Connector DB25 (female)



The Female DB25 is connected to onboard special Analog-Input connector with a 30cm special shielded cable.