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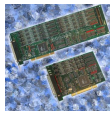
sales@wdlsystems.com

800-548-2319

PCI-DA12-2/4/6 & PCI-DA12-8/16

12-Bit Analog Output Cards

Features



- Universal PCI, PCI-X, 3.3V and 5V compatible (Call for PCI-Express availability)
- Two, four, six, eight and sixteen (respectively), 12-Bit, double-buffered, digital-to-analog converters
- Program control provides means for either individual update or simultaneous update of the DACs. The 8 and 16 channel models can use the counter-timer to generate DAC updates, and/or IRQs. The 2/4/6 models can use an external signal in this way.
- Unique, automatic control of DAC outputs to prevent spurious outputs at power-on
- 24-bits (PCI-DA12-8/16) or 16-bits (PCI-DA12-2/4/6) digital I/O buffered with tri-stateable transceivers
- Three 16-bit Down counters (models PCI-DA12-8/16 only)
- Resettable-fused +5VDC available for external use
- RoHS Available. Please contact us for ordering information

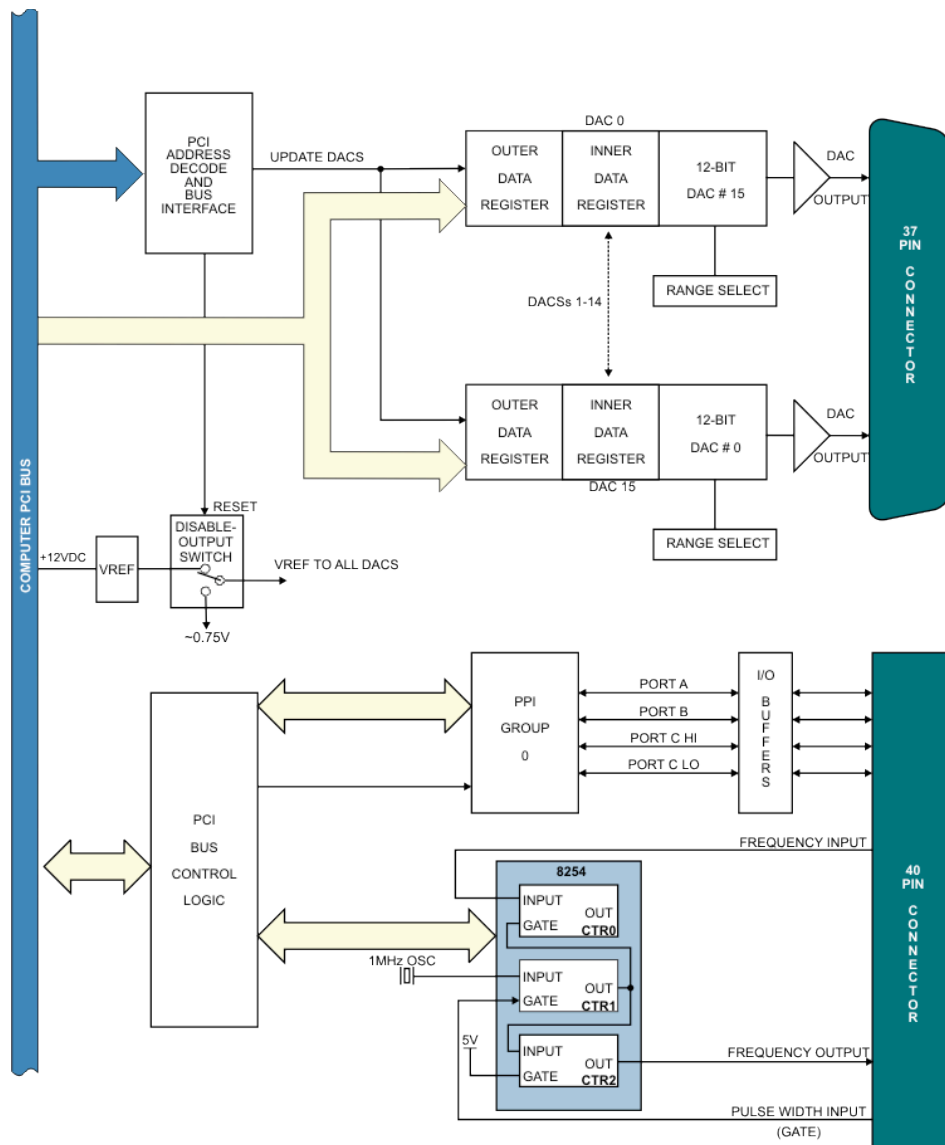
Description

Specifications

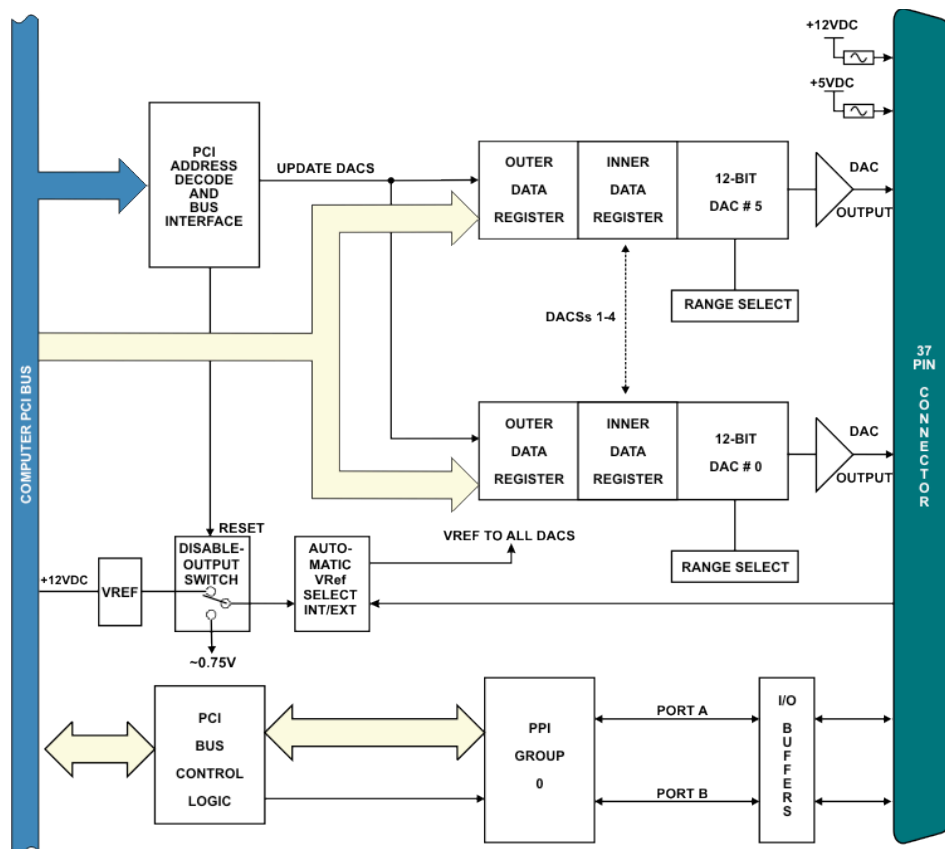
Manuals / Software

Ordering Information

PCI-DA12-16 and -8 Block Diagram



PCI-DA12-6, -4, and -2 Block Diagram



Specifications

Analog Outputs

- Resolution: 12 bits (0 to 4095 decimal)
- Channels:
 - PCI-DA12-2: Two independent or simultaneous update
 - PCI-DA12-4: Four independent or simultaneous update
 - PCI-DA12-6: Six independent or simultaneous update
 - PCI-DA12-8: Eight independent or simultaneous update
 - PCI-DA12-16: Sixteen independent or simultaneous update
- Voltage Output Ranges:
 - 0-2.5 VDC, 0-5 VDC, 0-10 VDC, ± 2.5 VDC, ± 5.0 VDC, ± 10.0 VDC
- Current Range: 4 to 20 mA (with external excitation voltage of 8-36VDC)
- Short-circuit Current: 25 mA maximum
- Output Drive Capability: 5 mA maximum
- Output Resistance: Less than 0.1 ohm

Digital to Analog Converter

- AD7237 monolithic chip, double buffered
- Relative Accuracy: ± 4 LSB max, $\pm 1/2$ LSB typical
- Linearity: $\pm 1/2$ LSB integral non-linearity over rated temperature range
- Monotonicity: 12 bits over operating temperature range
- Settle time: 8 μ s to 1 LSB for full-scale step input
- Data Format: 12-bit binary, right justified and offset binary for bipolar outputs
- Gain Stability: ± 15 ppm/ $^{\circ}$ C typ.
- Data Format: Right-justified, two bytes (8LSB's and 4MSB's)

Counter/Timers (PCI-DA12-8/16 only)

- Type: 82C54-5 programmable interval counters.
- Output Drive: 2.2 ma at 0.45 VDC (5 LSTTL loads).
- Input Gate: TTL/CMOS compatible
- Clock: On-board, 1 MHz crystal-controlled clock.
- Active Count Edge: Negative Edge.
- Minimum Clock Pulse Width: 30 nS high, 50 nS low.
- Timer Range: 48 bits

Environmental

- Operating Temperature: 0 to $+60^{\circ}$ C
- Storage Temperature: -20 to $+85^{\circ}$ C
- Humidity: 5% to 95% without condensation
- Size:
 - PCI-DA12-8/16: 12.2" (310 mm) long
 - PCI-DA12-2/4/6: 6.0" (147 mm) long

Digital I/O

Inputs

- Logic High: 2.0 to 5.0 VDC.
- Logic Low: -0.5 to +0.8 VDC.
- Input Load (High): +20 μ A.
- Input Load (Low): -200 μ A.

Outputs

- Logic High: 2.0 VDC min., source 32 mA.
- Logic Low: 0.55 VDC max., sink 64 mA.

DC Power Output

- +5 VDC at 500 mA is available on the 37-pin connector.

Regulatory Compliance

- This product is in full compliance with CE requirements. 