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Datasheet

Diamond Systems

DS-MPE-DAQ0804

Rugged miniPCIe Data Acquisition Extension Card

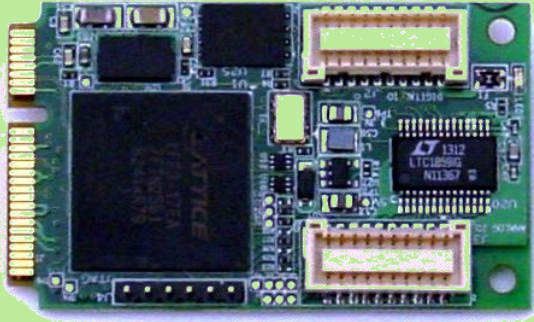


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DS-MPE-DAQ0804



PCIe MiniCard Data Acquisition I/O Expansion Module



- ◆ 8 single ended / 4 differential 16-bit analog inputs
- ◆ 100KHz maximum aggregate sample rate
- ◆ 2048 sample A/D FIFO with programmable threshold
- ◆ 4 analog input ranges
- ◆ 4 16-bit analog outputs
- ◆ 2 analog output ranges
- ◆ 14 digital I/O lines, configurable as PWM or counters:
 - 4 24-bit pulse width modulators
 - 8 32-bit counter/timers
- ◆ +3.3VDC input power
- ◆ Latching connectors for increased ruggedness
- ◆ Support for Windows 7, XP, and Linux 3.2.x
- ◆ Universal Driver support for all functions
- ◆ PCIe MiniCard full size form factor (50.95 x 30mm)
- ◆ Operating temperature of -40°C to +85°C

Description

The DS-MPE-DAQ0804 is a rugged data acquisition PCIe MiniCard module with both analog and configurable digital I/O. It is ideal for add-on data acquisition I/O expansion in embedded and OEM applications.

The PCIe MiniCard offers 8 single ended or 4 16-bit analog inputs with an aggregate sample rate of 100KHz maximum, 2048 sample A/D FIFO, 4 16-bit analog outputs, and 14 digital I/O lines. The buffered digital I/O lines can be optionally configured as either pulse width modulators or counter/timers. Diamond's Universal Driver software provides driver support for all functions.

The DS-MPE-DAQ0804 product comes with the PCIe MiniCard data acquisition I/O module, the CK-DAQ02 cable kit with one analog cable and one digital cable, and a hardware kit with mounting screws.

Rugged Design

Extended temperature capability (-40°C to +85°C) enables the board to operate in environments with extreme temperature swings, such as vehicles or outdoor installations.

Specifications

Analog inputs	8 16-bit single ended, 4 differential
Sample rate	100KHz maximum aggregate
A/D FIFO	2048 samples with programmable threshold
Input ranges	±10V, ±5V, 0-10V, 0-5V
Input protection	±25V
Analog outputs	4 16-bit
Output ranges	0-2.5V, 0-5V
Digital I/O	14 lines buffered, individual direction control and protection
DIO pull-up/pull-down	Software selectable
PWM	4 24-bit, 0-100% duty cycle
Counter/timers	8 32-bit programmable
Power input	+3.3VDC ±5%
Power consumption	0.462W @ 3.3V
Software drivers	Windows 7, XP Linux 3.2.x
Universal Driver	Support for all functions
Operating temperature	-40°C to +85°C
Operating humidity	5% to 95% non-condensing
Form factor	PCIe MiniCard full size
Dimensions	50.95mm x 30mm (2" x 1.18")
Weight	8.5g (0.3oz)
RoHS	Compliant

Ordering Information

DS-MPE-DAQ0804	Data Acquisition I/O PCIe MiniCard Module with cable kit
DS-MPE-DAQ0800	Analog input and digital I/O PCIe MiniCard Module with cable kit
CK-DAQ02	Cable Kit with analog and digital cables

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