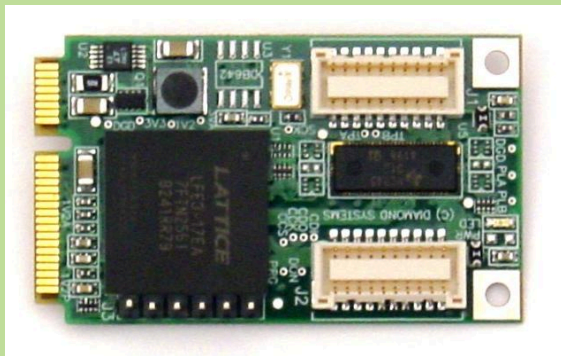


DS-MPE-GPIO

PCIe MiniCard I/O Expansion Module with Digital I/O & FPGA



Description

The DS-MPE-GPIO is a rugged, low cost 36-channel digital I/O PCIe MiniCard module that is ideal for digital I/O expansion in embedded and OEM applications.

An FPGA provides 36 buffered digital I/O lines that can be configured to operate in simple I/O mode in the form of 8-bit and 4-bit ports, or in counter/timer and pulse width modulator modes. Two ports are fixed digital I/O ports with programmable direction in 8-bit groups. One port can operate as either a 4-bit DIO or 4 counter/timers with 1 input and 1 output per counter. One port can operate as either 8 DIO or up to 8 pulse width modulators.

The DS-MPE-GPIO product comes with the 36-channel PCIe MiniCard digital I/O module, the CK-DAQ02 cable kit with two digital I/O cables, 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.

- ◆ 36 buffered digital I/O lines
- ◆ Configurable for up to 4 24-bit PWM
- ◆ Configurable for 4 programmable counter/timers
- ◆ 3245 transceivers for high current output
- ◆ Software configurable pull-up/pull-down resistors
- ◆ +3.3VDC input power
- ◆ Latching connectors for increased ruggedness
- ◆ Support for Windows 7, XP, CE, and Linux 2.6.xx
- ◆ Universal Driver support for all functions
- ◆ PCIe MiniCard full size form factor (50.95 x 30mm)
- ◆ Operating temperature of -40°C to +85°C

Specifications

Number of DIO	36 buffered
Pull-up / pull -down	Software configurable resistors
Transceivers	32245 with high current output
Current Output	+/-24mA per line
Power-up / reset	DIO in input mode
PWM	4 24-bit circuits configurable 0-100% duty cycle On/off control Programmable polarity
Counter/ timers	4 32-bit circuits configurable Programmable
Power input	+3.3VDC ±5%
Power consumption	100mA @ 3.3V
Software drivers	Windows 7, XP, CE Linux 2.6.12, 2.6.27, 2.6.31, 2.6.32
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-GPIO	36-channel Digital I/O PCIe MiniCard Module with cable kit
CK-DAQ02	Cable Kit with two GPIO cables