PCIe-FIW64

4-CH PCI Express® IEEE 1394b Frame Grabber

Grayscale Camera | Color Camera | PCI EXPRESS | 1394 TRADE ASSOCIATION | Digital

Overview

The PCIe-FIW64 is IEEE 1394b (FireWire 800) interface card designed for high speed computer-based machine vision application. The PCIe-FIW64 supports four 1394b (FireWire 800) ports for multiple 1394b device connections with data transfer rates up to 800 Mb/s, as found with most IEEE 1394b cameras.

The PCIe-FIW64 provides four isolated digital inputs and outputs to connect to external devices such a position sensor. The PCIe-FIW64 also includes four isolated programmable trigger output pulses to manage trigger events such as activating a strobe light.

Features

- **PCI Express® x4 compliant**
- **High-speed image transfer rates up to 3.2 Gbps**
- **Provides industrial screw lock connector**
- **Status LED for channel activation**
- **Four isolated digital inputs/outputs**
- **Four isolated TTL level programmable trigger output pulses**

Applications

- **Machine vision inspection systems**
- **Automatic optical inspection machineries**
- **Scientific research instrumentations**
- **Medical research instrumentations**

Software Support

- Windows® Platform
  - Available for Windows® Vista (32-bit)/XP

Ordering Information

- **PCIe-FIW64**
  4-CH PCI Express x4 IEEE 1394b interface card

Accessories

Cabling

- 1394b Cable
  4.5 M IEEE 1394b 9-pin cable with screw-lock connector

Specifications

IEEE 1394b Port	Four IEEE 1394b fully compliant cable ports at 100 Mb/s, 200 Mb/s, 400 Mb/s, and 800 Mbits/s.
	Fully supports provisions of IEEE P1394b-2002.
	Fully compliant with provisions of IEEE std 1394-1995 for a high performance serial bus and IEEE std 1394a- 2000.
Digital and Trigger I/Os	Four isolated digital inputs/outputs
	Four isolated trigger inputs/outputs
Isolated Voltage	1000 V @ 60 seconds
Form Factor	PCI Express® x4 interface
	(PCI Express® Base Specification, Revision 1.1 compliant)
Dimensions	129.5 x 111.15 mm (W x L)
Operating Environment	Temperature: 0°C to +55°C
	Humidity: 5% to 90%
Storage Environment	Temperature: 0°C to + 85°C
	Humidity: 0% to 95%
Power Requirements	+12 V (max.), 200 mA
	+3.3 V (max.), 2.5 A

I/O and trigger

Function	Electronic Specification
Isolated Digital Input	Photo Coupled Input x 4-CH
Input Voltage Range	0 to 25 V
Low Level	0 to 0.5 V
High Level	2 to 25 V
Isolated Digital Output	Photo Coupled Output x 4-CH
Load Voltage Range	3 to 24 V
Output Sink Current	80 mA (max.)
Output Voltage Drop	1.0 V (max.)
Leak Current	0.1 mA (max.)
Reverse Voltage	-6 V
Isolated Trigger Input	Photo Coupled Trigger Input x 4-CH
Input Voltage Range	0 to 25 V
Low Level	0 to 0.5 V
High Level	2.4 to 25 V
Polarity	Positive/Negative selectable
Minimum Pulse Width	0.1 msec
Isolated Trigger Out	Photo Coupled Trigger Output x 4-CH
Load Voltage Range	0 to 5 V
Output Sink Current	40 mA (max.)
Output Voltage Drop	0.4 V Max (@ 16 mA)
Trigger Out Control	
Trigger Delay	0 to 1000 ms selectable (1 ms step.)
Trigger Out Pulse Width	0.1msec to 50 ms selectable (0.1 ms step)
Polarity	Positive/Negative selectable
Enable Control	Enable/Disable