

GrabLink Expert

Image Acquisition from Digital Camera Link Cameras

Features

- Support of line- or area-scan cameras in Base, dual Base or Medium Camera Link configurations
- 64-bit, 66 MHz PCI bus
- Acquisition: 24-bit/48-bit at a maximum of 66MHz
- 16-Mbyte on board memory
- Asynchronous reset, exposure control and I/O lines (trigger & strobe)
- Camera Link serial line configurable as an additional PC COM port
- Multiple taps, tap reversal, tap multiplex, dynamic windowing



Introduction

General

The EureCard GrabLink Expert is a high-performance 64-bit, 66 MHz PCI bus board capable of acquiring images in 2-Base or one Medium configuration. The GrabLink Expert is a high-speed PCI frame grabbers for line- or area-scan Digital Camera Links.

State-of-the-art cameras are easily connected with off-the-shelf Camera Link compliant cables. The GrabLink Expert is ideal for industrial applications such as inspection of high-speed moving objects, web inspection or high-resolution acquisition.

Configuration Supports

GrabLink Expert is a Camera Link compatible frame grabber fitted with two Camera Link connectors. It's capable of acquiring images simultaneously or independently from two line-scan or area-scan digital cameras in a dual Base configuration. GrabLink Expert also supports one camera in a Medium configuration. It supports various types of cameras:

Number of camera	Mono. single-tap	Mono. dual-tap	RGB triple-tap	Mono. quad-tap	Mono. octal-tap
Base	Two 8-16bits	Two 8-12bits	Two 8bits		
Extend Base *				Two 8-12bits	
Medium			One 10-12bits	One 8-12bits	
Extend Medium*					One 8-12bits

* Multiplex tap. Preliminary feature

Line-scan Systems

Camera Modes: The EureCard GrabLink series interfaces to state-of-the-art Camera Link line-scan cameras with line-rate and exposure control. Free running cameras are supported as well.

Continuous Web Scanning: The "web mode" allows inspection of a continuously moving surface without losing any lines.

Successive Object Scanning: In "page mode", GrabLink acquires a set of consecutive lines constituting a 2D image. The acquisition starts when the object enters the cameras field of view, as signaled by an external trigger.

Motion Encoder: When the observed web or object moves at a variable speed, the frame grabber imposes a camera scanning rate derived from a motion encoder. This guarantees a fixed pixel aspect ratio. Perfect square pixels are achievable. A built-in rate converter can define any ratio between the camera scanning rate and the encoder pulse rate with a 1/1000 resolution. Thus, an off-the-shelf encoder can be used to serve several applications. The exposure control feature guarantees a constant sensitivity despite the speed variation.

Serial Control of Cameras

The GrabLink Expert supports two Camera Link pseudo RS-232 serial lines. The application software can use the Camera Links API functions to control the camera. Alternatively, the serial lines can be configured as additional PC COM ports ensuring interoperability with existing camera control software.

I/O Board

GrabLink Expert is delivered with an auxiliary I/O board implementing the trigger and strobe facilities. The bracket is fitted with two connectors. On the female DB9 connector, system components (such as a motion encoder) benefit from isolated I/O lines and power supply. TTL trigger and strobe lines are available on the female DB25 together with 16 fully programmable general-purpose I/O lines.

Software Support

The MultiCam driver enables control of several Domino and GrabLink frame grabbers simultaneously, using an arbitrary number of cameras. MultiCam allows defined channel linking cameras to be buffered into the PC memory. The MultiCam channel identifies all parameters ruling the acquisition process for a camera. All camera features, such as resolution and control means, are reported through simple parameters. The MultiCam driver runs under Windows



Ordering Information

- **GrabLink Expert**
Image acquisition from digital Camera Link camera

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Software Solutions

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PXI/ CompactPCI Platforms

3
PXI-Based Instruments

4
PXI/ CompactPCI Modules

5
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6
PCI DIO Cards

7
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8
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9
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