

IMPERX

Express Card FRAME GRABBERS

VCE-CLEX02



FrameLink - Camera Link Express Card/34

The success of the FrameLink and VCE series of PCMCIA frame grabbers has positioned IMPERX as the world's leading supplier of advanced video capture cards for laptops. Using this experience as leverage, we have developed the FrameLink Express, a Camera Link frame grabber designed especially for ExpressCard laptops. It provides the functionality, performance and versatility required by today's most demanding vision systems. The FrameLink Express is a highly versatile frame grabber capable of acquiring images from a Camera Link base camera. It features a flow-through pipeline architecture with an intelligent scatter/gather DMA engine providing over 235 Mbytes/s of throughput. A full software suite, including drivers, C/C++ SDK, and an application program, is provided with the card.

Features

- Supports one Base Camera Link interface.
- ExpressCard/34 compliant providing 2.5 Gbps of bandwidth
- Intelligent scatter/gather DMA (235 MBytes/sec) for fast, efficient use of ExpressCard bandwidth and system memory
- Flow-through pipeline architecture for low latency
- Built-in CC pulse generators
- Advanced features include: Lookup tables, histograms, RGB gain/offset, auto-white balance, hex pixel dump, etc.
- Bayer pattern interpolation
- Unique 'auto-learn' feature automatically recognizes camera parameters and simplifies CAM file creation
- Plug-and-play operation with hot insertion/removal
- Backwards compatible with FrameLink (PCMCIA) software

Applications

Industrial

- Silicon wafer and PCB inspection
- Machine vision
- Document scanning

Medical

- Ultrasound
- X-Ray, CT and MRI

Military

- Aerial mapping/survey
- Battlefield imaging
- UAV, Robotic vision

Security

- Police in-car surveillance
- Biometric identification

Camera Link ExpressCard/34 - VCE-CLEX02 Specifications

Features	Acquisition from a Camera Link Base Camera ExpressCard/34 compliant PCIe x1 lane providing 2.5 Gbps of bandwidth Intelligent scatter/gather DMA Flow-through pipeline architecture Dynamic buffer allocation Plug-and-play with hot insertion and removal Selectable window sizes Adjustable RGB brightness and auto white balance Bayer pattern interpolation Built-in programmable CC pulse generator Captures single, multiple frames or AVI clips Normal or delay capture BMP, TIFF or adjustable JPEG file format Image viewer with DVR controls	Description
Video Source	One Camera Link input configured as Base Uses one mini-CL connector 24 video data bits plus strobes and clock per channel 4 camera control bits (CC1 to CC4) per channel Bi-directional interface per channel	The FrameLink Express is a professional, state of the art ExpressCard video capture card, allowing users to view and store in real time mega-pixel video images from Camera Link sources on their notebook computers. The FrameLink Express is capable of capturing single or multiple frames, and standard AVI clips from any Base Camera Link compliant video source. Each captured frame can be stamped with a user message along with the date and time of capture. The FrameLink Express offers easy to use camera configuration software, which allows for fast integration of the card into demanding machine vision environments.
Video Format	1x8, 2x8, 3x8, 1x10, 2x10, 1x12, 2x12, 1x14, 1x16 and 3x8 (RGB24) Mono, Bayer color and RGB color	Power Requirements
Software	Application program: Full featured, intuitive, easy to use GUI Drivers: Win 7/XP/Vista 32 bit and 64 bit, Linux, DirectX, Labview, Matlab, Halcon SDK: C/C++, COM, .NET, ActiveX – all with sample source code	3.3V DC, +/-5% 500 mA steady 1.65W constant power
Environmental	Operating temperature: 0°C to 65°C Relative humidity: 90% non-condensing	Order Information
Mechanical	ExpressCard/34 form factor 4.28" x 1.3" x 0.7" (108 x 34 x 18mm) Weight 1.27 oz., 35.9 g	VCE-CLEX02
Regulatory	FCC 15 part B, CE, RoHS	



For specific details and ordering information, consult the camera user's manual or contact IMPERX at sales@imperx.com.

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