



### ExpressCard/34 Camera Link Video Capture Card



### FrameLink ExpressCard/34 (VCE- CLEX02)

*Acquisition from a single base camera*

*Advanced features: Lookup tables, histograms, RGB gain/offset with auto-white balance...*

The IMPERX FrameLink ExpressCard/34 is a professional level PCI Express video capture card that enables users to view and store in real time mega pixel video images from Camera Link sources onto laptop computers. IMPERX FrameLink ExpressCard/34 is capable of capturing single or multiple frames and standard AVI clips from a single base CameraLink compliant video source. Each captured frame can be stamped with a user message along with the date and time of capture. A full software suite that includes drivers, C/C++, SDK, and an application program is provided with each IMPERX FrameLink VCE-CLEX02 card.

- Supports one base Camera Link interface
- ExpressCard/34 compliant providing 2.5 Gbps of bandwidth
- Intelligent scatter/gather DMA for fast, efficient use of PCIe bandwidth and system memory
- Flow-through pipelined architecture for low latency
- Built in CC pulse generators
- Many advanced features including look up tables, histograms, RGB gain/offset with auto-white balance, hex pixel dump, etc.
- Bayer pattern interpolation
- Unique 'auto-learn' feature automatically recognizes camera parameters and simplifies
- CAM file creation
- Backwards compatible with FrameLink (PCMCIA) software



#### APPLICATIONS

Aerial Mapping  
Aerial Robots: Military, Police  
Aerospace  
Agriculture  
Automation

Automotive  
Biometrics  
Broadcasting  
Printed Circuit Board (PCB)  
Electronics  
Energy/Solar/Wind Power

Flat Panel Inspection  
Food/Beverage  
Homeland Security  
Law Enforcement  
Intelligent Traffic Systems (ITS)  
Medical Devices/Imaging

Metrology  
Microscopy  
Military/Defense  
Pharmaceuticals  
Particle Image Velocimetry (PIV)  
Radiology

Robotics  
Scientific Apps  
Surveillance  
Semiconductors  
Transportation  
Textile/Apparel

# Framelink ExpressCard/34 VCE-CLEX02 Specifications

**Features** Acquisition from one base camera  
 PCI Express lane providing 2.5 Gbps of bandwidth  
 Intelligent scatter/gather DMA  
 Flow-through pipelined architecture  
 Dynamic buffer allocation  
 Selectable window sizes  
 Adjustable RGB brightness and auto white balance  
 Bayer pattern interpolation  
 Built in programmable logic controller  
 Captures single, multiple frames or AVI clips  
 Normal or delay capture  
 Date, time and text overlay  
 BMP, TIFF or adjustable JPEG file format  
 Image viewer with DVR controls

**Software** Application program: Full featured, intuitive, easy to use GUI  
 Drivers: Win XP/2000/Vista/7 in 32 and 64 bit versions, DirectX,  
 Labview, Matlab, Halcon, MIL, Linux  
 SDK: C/C++, COM, .NET, ActiveX – all with sample source code

**Video Source** One Camera Link input configured as base:  
 • Uses one mini-CL SDR connector  
 • 24 video data bits plus strobes and clock  
 • 4 camera control bits (CC1 to CC4)  
 • Bi-directional serial interface

**Video Format** 1x8, 2x8, 3x8, 1x10, 2x10, 1x12, 2x12, 1x14,  
 1x16 and 3x8 (RGB24)  
 Monochrome and color (RGB, Bayer and TRUESENSE)

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**Power** 3.3V DC +/-5%, 500 mA steady  
 1.65W constant power

**Environmental** Operating temperature: 0°C to 65°C  
 Relative humidity: 90% non-condensing

**Regulatory** FCC 15 part B, CE, RoHS

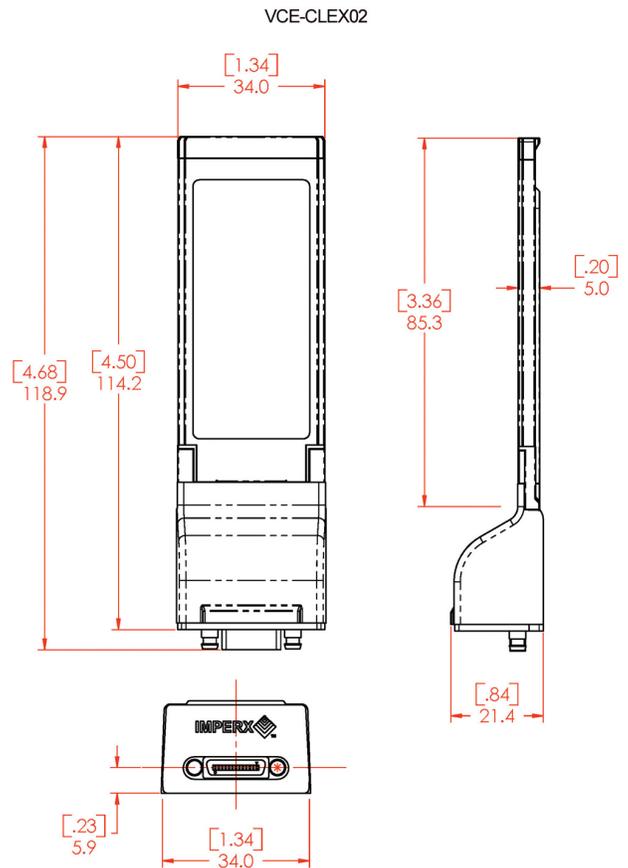
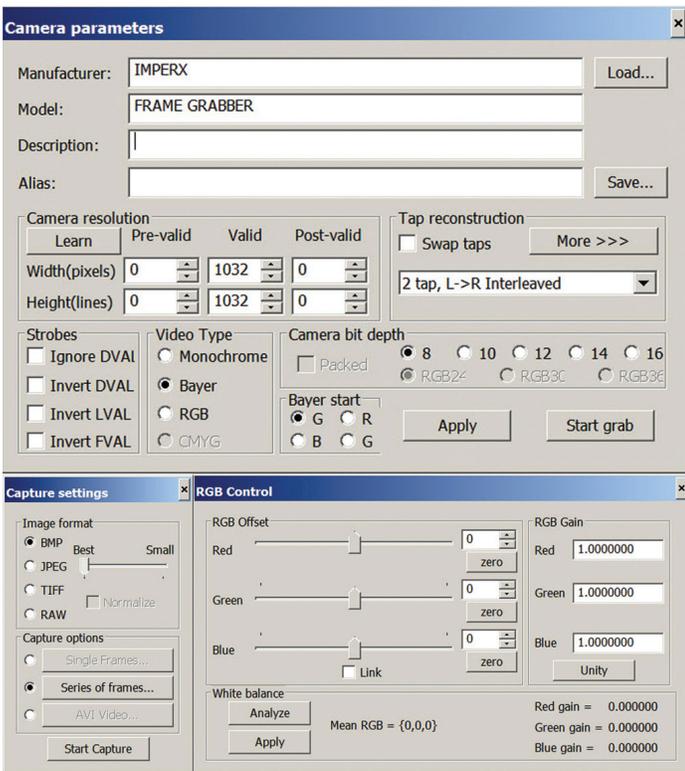
**Mechanical** ExpressCard/34 form factor  
 Weight 1.91 oz., 36g

## Order: VCE-CLEX02

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

### Software

### Mechanical Dimensions



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