FRAME GRABBERS

IMPERX

CAMERAS
FRAME GRABBERS
IMAGING SOLUTIONS

SPECIFICATIONS

Camera Link® ExpressCard/34 for Laptops

VCE-CLEX02

Acquisition from a single Base Camera Link camera
Advanced features: Look up tables, histograms, RGB gain/offset with auto-white balance

IMPERX FrameLink ExpressCard/34 is a professional level ExpressCard 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 Camera Link 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.

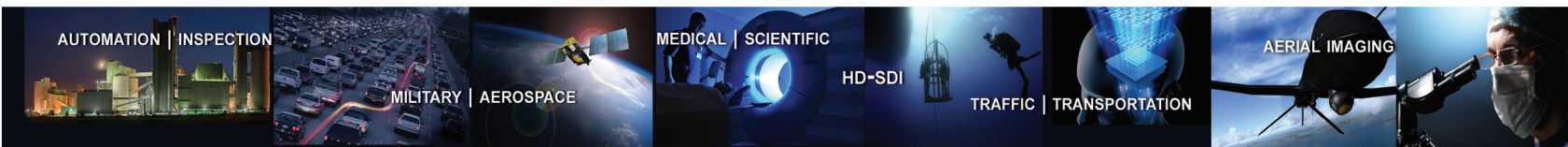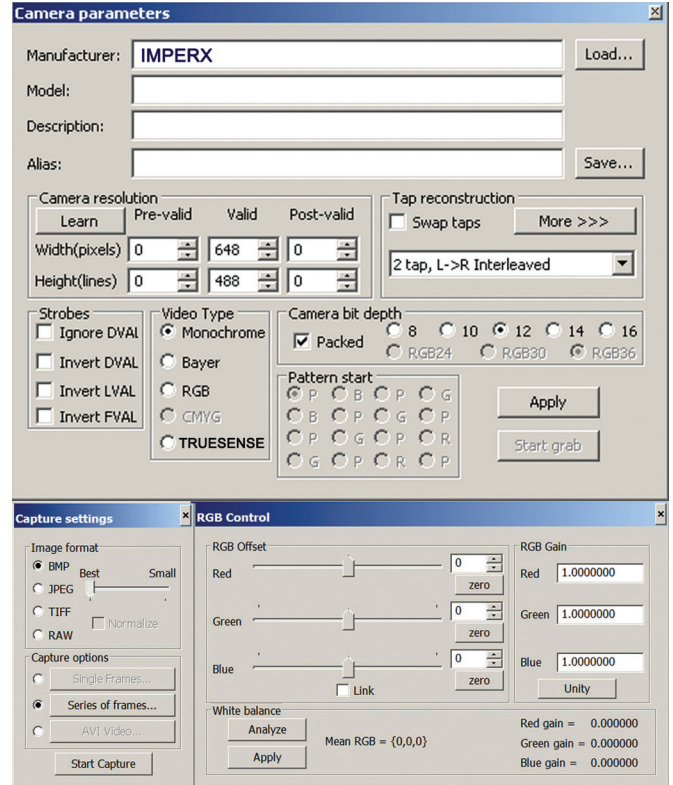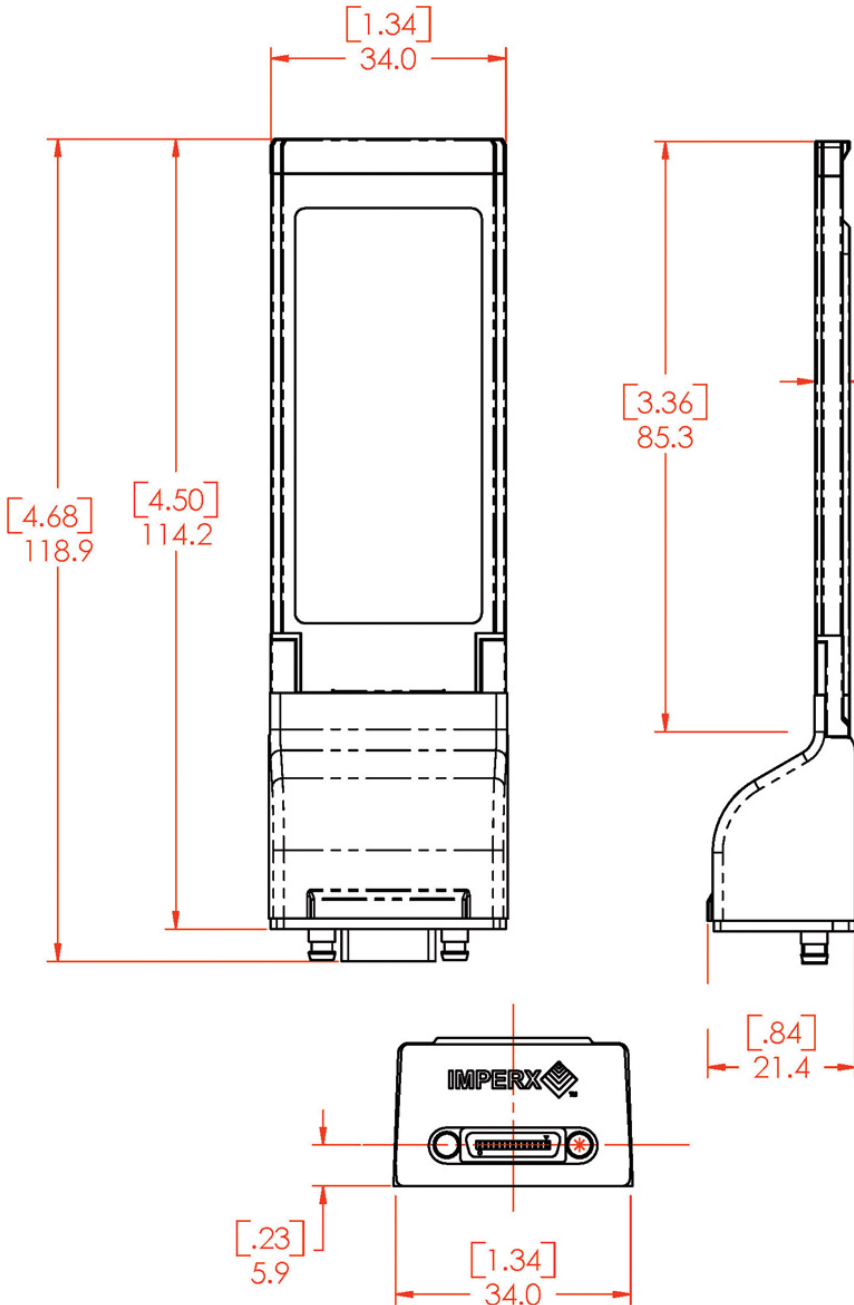|	
Features	ExpressCard/34 compliant providing 2.5 Gbps of bandwidth
	Built in programmable logic controller
	Intelligent scatter/gather DMA for fast, efficient use of PCIe bandwidth and system memory
	Flow-through pipelined architecture for low latency
	Built in CC pulse generators
	Unique 'auto-learn' feature automatically recognizes camera parameters and simplifies CAM file creation
	Dynamic buffer allocation
	Selectable window sizes
	Adjustable RGB brightness and auto white balance
	Bayer pattern interpolation
	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
	Many advanced features including look up tables, histograms, RGB gain/offset with auto-white balance, hex pixel dump, etc.
Software	Application program: Full featured, intuitive, easy to use GUI
	Drivers: Win XP/2000/Vista/7/8, DirectX, Halcon, LabVIEW, Matlab,
	SDK: C/C++,.COM, .NET, ActiveX - all with sample source code
Video Source	Uses one mini-CL (SDR/HDR) 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 Sparse CFA
Power	3.3V DC +/-5%, 500 mA steady
	1.65W constant power
Environmental	Operating temperature: -40°C to +85°C
	Relative humidity: 90% non-condensing
MTBF	>390,000 hours @ 50°C (MIL-STD-785B, MIL-HDBK-217F)
Regulatory	FCC part 15, Class B, CE, RoHS
Mechanical	ExpressCard/34 form factor
	Weight 1.91 oz., 36g

IMPERX

WWW.IMPERX.COM

Order: VCE-CLEX02

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

[1.34]
34.0

[4.68]
118.9

[4.50]
114.2

[3.36]
85.3

[.20]
5.0

[.84]
21.4

[.23]
5.9

[1.34]
34.0

IMPERX

ExpressCard

CAMERA Link

VCE-CLEX02, Rev 2

Camera parameters

Manufacturer: IMPERX   Load...
Model:
Description:
Alias: Save...

Camera resolution   **Tap reconstruction**
Learn   Pre-valid Valid Post-valid   ☐ Swap taps   More >>>
Width(pixels) 0   648   0
Height(lines) 0   488   0   2 tap, L->R Interleaved

Strobes   **Video Type**   **Camera bit depth**
☐ Ignore DVAL   ⦿ Monochrome   ☑ Packed   ○ 8 ○ 10 ⦿ 12 ○ 14 ○ 16
☐ Invert DVAL   ○ Bayer   ○ RGB24 ○ RGB30 ⦿ RGB36
☐ Invert LVAL   ○ RGB   **Pattern start**
☐ Invert FVAL   ○ CMYG   ⦿ P ○ B ○ P ○ G   Apply
                ○ TRUESENSE   ○ B ○ P ○ G ○ P
                               ○ P ○ G ○ P ○ R   Start grab
                               ○ G ○ P ○ R ○ P

Capture settings   **RGB Control**

Image format   **RGB Offset**   **RGB Gain**
⦿ BMP   Best   Small   Red   0   Red   1.0000000
○ JPEG   zero
○ TIFF   ☐ Normalize   Green   0   Green 1.0000000
○ RAW   zero
Capture options   Blue   0   Blue   1.0000000
○ Single Frames...   zero
⦿ Series of frames...   ☐ Link   Unity
○ AVI Video...   **White balance**
                        Analyze   Mean RGB = {0,0,0}   Red gain =   0.000000
Start Capture   Apply   Green gain = 0.000000
                                                           Blue gain = 0.000000