FRAME GRABBERS

SPECIFICATIONS

IMPERX™

CAMERAS
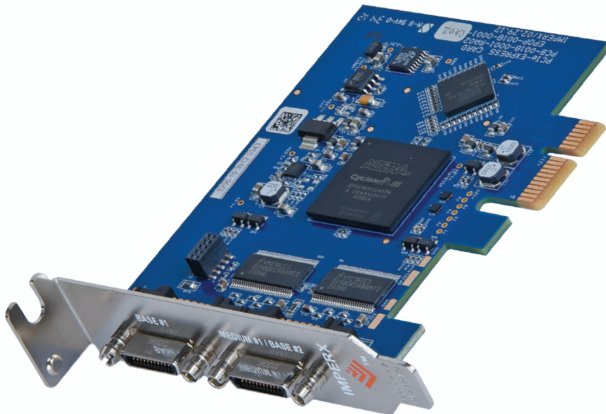FRAME GRABBERS
IMAGING SOLUTIONS

Camera Link® PCIe x1 Card for Desktop PCs

VCE-CLPCIe01

Simultaneous acquisition from two Base Camera Link cameras or one Medium Camera Link camera. Uses intelligent DMA for fast, efficient use of the ExpressCard bandwidth with a flow-through pipelined architecture for low latency.

IMPERX FrameLink PCIe x1 is a professional level video capture card that enables users to view and store in real time mega pixel video images from Camera Link sources onto desktop computers. IMPERX FrameLink PCIe x1 is capable of capturing single or multiple frames and standard AVI clips on up to two Base or one Medium 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 FrameLink VCE-CLPCIe01 card.

Features

- PCIe x1 lane providing 2.5 Gbps of bandwidth
- Intelligent scatter/gather DMA for fast, efficient use of PCIe bandwidth and system memory
- 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, RAW 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.

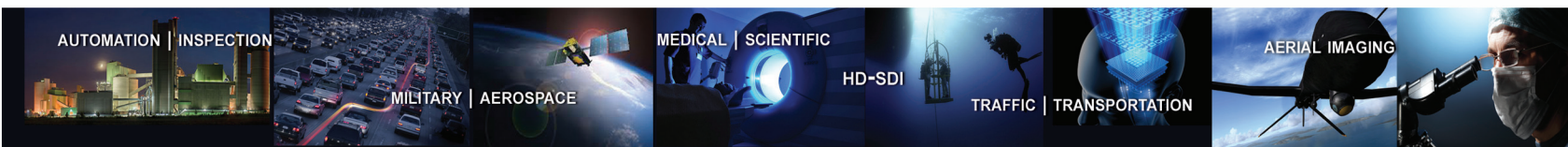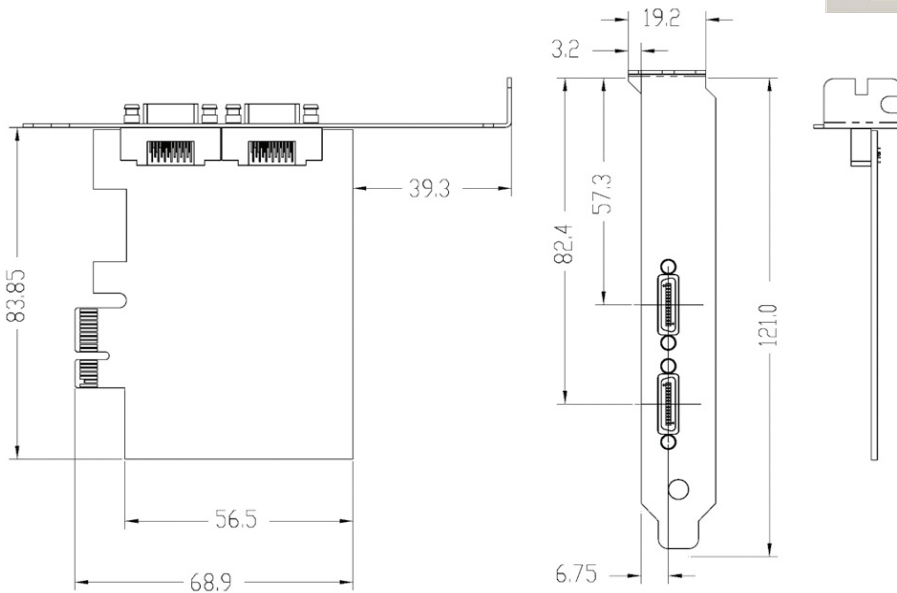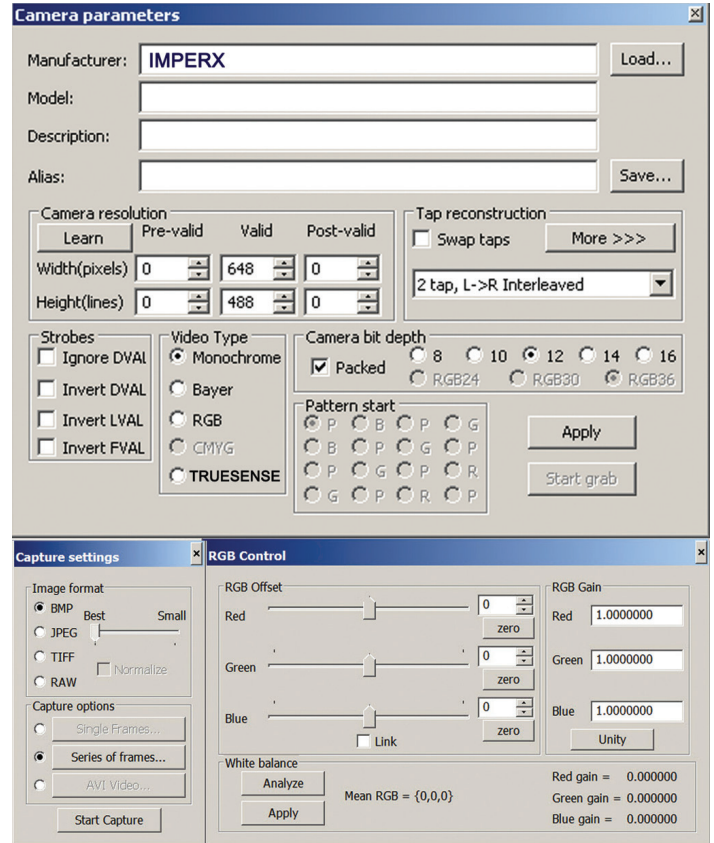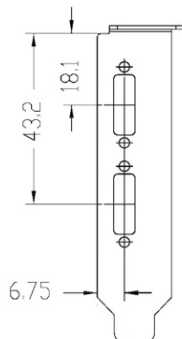|	
Software	Application program: Full featured, intuitive, easy to use GUI
	Drivers: Win XP/2000/Vista/7/8, DirectX, Halcon, LabVIEW, Matlab
	SDK: C/C++, COM, .NET, ActiveX - all with sample source code
Video Source	Uses two mini-CL (SDR/HDR) connectors
	Base: 24 video data bits plus strobes and clock per channel
	Medium: 48 video data bits plus strobes and clock per channel
	4 camera control bits (CC1 to CC4) per channel
	Bi-directional serial interface per channel
Video Format	Base: 1x8, 2x8, 3x8, 1x10, 2x10, 1x12, 2x12, 1x14, 1x16 and 3x8 (RGB24)
	Medium: 4x8, 3x10, 4x10, 3x12, 4x12, RGB30 and RGB36
	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	Low profile PCI Express form factor
	Weight 1.59 oz., 45g

IMPERX™

WWW.IMPERX.COM

Order: VCE-CLPCIe01

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

Camera parameters

Manufacturer:	IMPERX
Model:	
Description:	
Alias:	

Load...
Save...

Camera resolution

Learn | Pre-valid | Valid | Post-valid
Width(pixels) | 0 | 648 | 0
Height(lines) | 0 | 488 | 0

Tap reconstruction
☐ Swap taps   More >>>
2 tap, L->R Interleaved

Strobes
☐ Ignore DVAL
☐ Invert DVAL
☐ Invert LVAL
☐ Invert FVAL

Video Type
◉ Monochrome
○ Bayer
○ RGB
○ CMYG
○ TRUESENSE

Camera bit depth
☑ Packed   ○ 8   ○ 10   ◉ 12   ○ 14   ○ 16
○ RGB24   ○ RGB30   ◉ RGB36

Pattern start
◉ P ○ B ○ P ○ G
○ B ○ P ○ G ○ P
○ P ○ G ○ P ○ R
○ G ○ P ○ R ○ P

Apply
Start grab

Capture settings

Image format
◉ BMP   Best   Small
○ JPEG
○ TIFF   ☐ Normalize
○ RAW

Capture options
○ Single Frames...
◉ Series of frames...
○ AVI Video...

Start Capture

RGB Control

RGB Offset
Red   0   zero
Green   0   zero
Blue   0   zero
☐ Link

RGB Gain
Red   1.0000000
Green   1.0000000
Blue   1.0000000
Unity

White balance
Analyze
Apply
Mean RGB = {0,0,0}

Red gain = 0.000000
Green gain = 0.000000
Blue gain = 0.000000

19.2
3.2
39.3
57.3
82.4
121.0
6.75
83.85
56.5
68.9

ALSO SUPPLIED WITH LOW PROFILE BRACKET

18.1
43.2
6.75

VCE-CLPCIe01, Rev 2

CAMERA Link