

SPECIFICATIONS

Camera Link® PCIe x1 Card for Desktop PCs

VCE-CLPCIe02

Simultaneous acquisition from two Base Camera Link cameras or one Medium Camera Link camera. Fully PoCL with SafePower compliant. Includes a comprehensive Programmable Logic Controller and 8 I/O signals.



IMPERX Framelink PCIe x1 is a professional level PCI Express video capture card that enables users to view and store in real time mega pixel images from any Camera Link source onto desktop computers. The Framelink PCIe x1 is capable of capturing single or multiple frames and standard AVI clips from any Base or Medium 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 VCE-CLPCIe02 comes with easy to use camera configuration software for fast integration of the card into demanding machine vision environments.

Features

- PCIe x1 compliant providing 2.5 Gbps of bandwidth
- Fully compliant with the Power over Camera Link (PoCL) and Safe Power specifications
- Built in comprehensive programmable logic controller (PLC)
- Intelligent scatter/gather DMA for fast, efficient use of PCIe bandwidth and system memory
- Flow-through pipeline architecture for low latency
- Includes 4 external inputs each configurable as TTL, LVDS or Opto-coupled
- Includes 4 general outputs each configurable as TTL, LVDS, Opto-coupled or Open Collector
- Dynamic buffer allocation
- Selectable window sizes
- Adjustable RGB brightness and auto white balance
- Unique 'auto-learn' feature automatically recognizes camera parameters and simplifies CAM file creation
- 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 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: 0°C to 65°C
Relative humidity: 90% non-condensing

MTBF

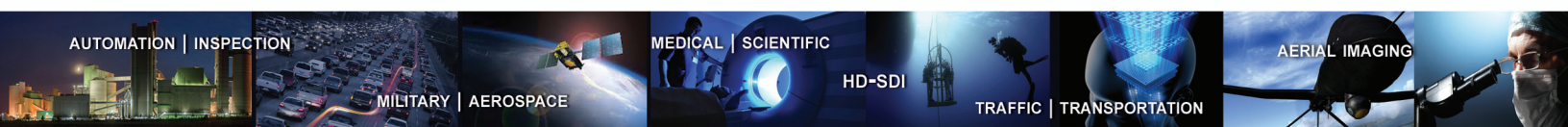
>330,000 hours @ 50°C

Regulatory

FCC part 15, Class B, CE, RoHS

Mechanical

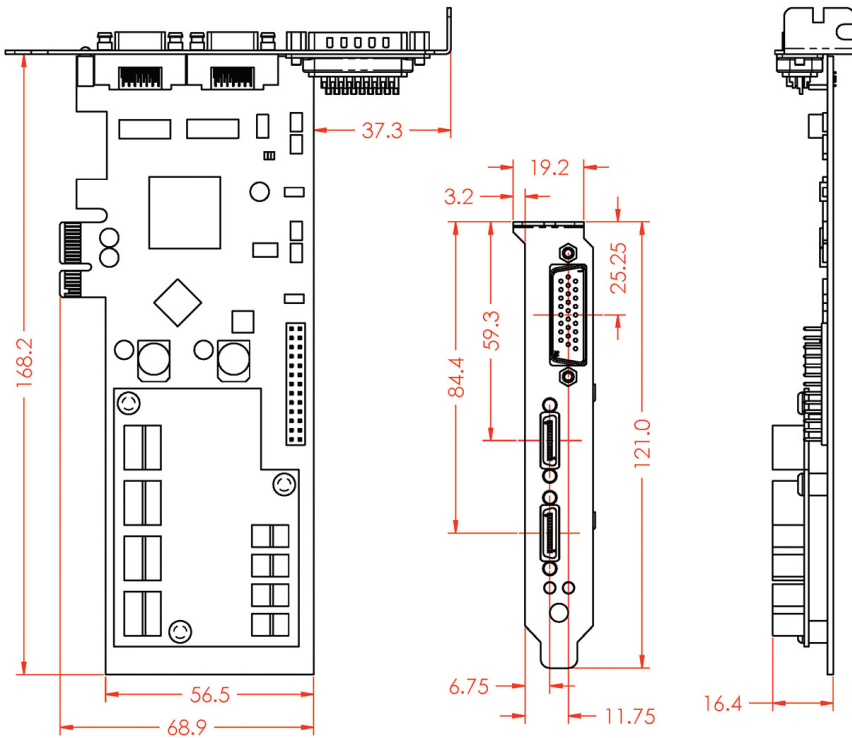
Low profile PCI Express form factor



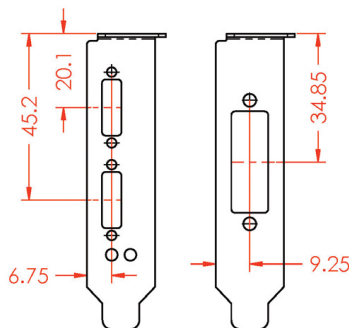


Order: VCE-CLPCle02

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



ALSO SUPPLIED WITH LOW PROFILE BRACKETS



Camera parameters

Manufacturer: IMPERX Load...

Model: []

Description: []

Alias: [] 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
- RGB24
- RGB30
- RGB36

Pattern start

<input checked="" type="radio"/> P	<input type="radio"/> B	<input type="radio"/> P	<input type="radio"/> G
<input type="radio"/> B	<input type="radio"/> P	<input type="radio"/> G	<input type="radio"/> R
<input type="radio"/> P	<input type="radio"/> G	<input type="radio"/> P	<input type="radio"/> R
<input type="radio"/> G	<input type="radio"/> P	<input type="radio"/> R	<input type="radio"/> P

Apply Start grab

Capture settings

Image format

- BMP Best Small
- JPEG
- TIFF
- RAW Normalize

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

White balance

Analyze Mean RGB = (0,0,0)

Apply

RGB Gain

Red: 1.0000000

Green: 1.0000000

Blue: 1.0000000

Unity

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



VCE-CLPCle02, Rev 2