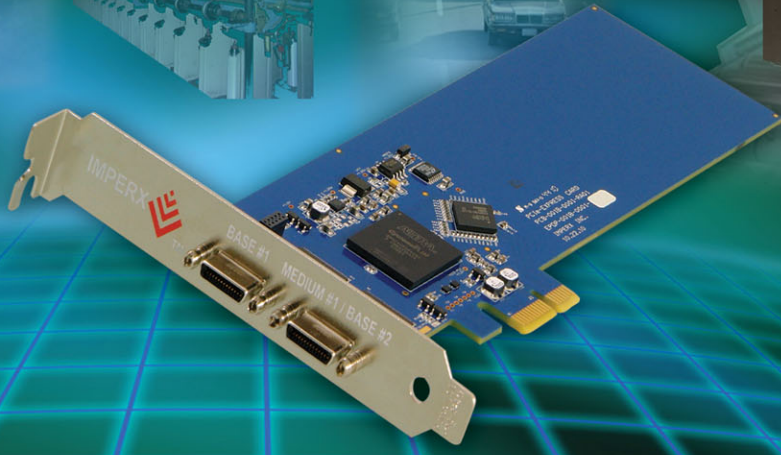


## DUAL CAMERA LINK PCIe X1 VIDEO CAPTURE CARD

### Framelink PCIe



### Features

- Supports two independent Base or one Medium Camera Link interfaces
- PCIe x1 compliant providing 2.5 Gbps of bandwidth
- Intelligent scatter/gather DMA for fast, efficient use of PCIe bandwidth and system memory
- Flow-thru pipelined architecture for low latency
- Built-in CC Pulse Generators
- Many advanced features including lookup tables, histograms, RGB gain/offset with auto-white balance, hex pixel dump, etc.
- Bayer pattern interpolation
- Unique 'auto-learn' feature that automatically recognizes camera parameters and simplifies CAM file creation
- Plug-n-Play operation with hot insertion/removal
- Backwards compatible with FrameLink (PCMCIA) software

The success of the FrameLink and VCE series of PCMCIA frame grabbers has positioned Imperx as the world's leading supplier of frame grabbers for laptops. Using this experience as leverage, we have developed the Framelink PCIe, a Camera Link frame grabber designed especially for PCI Express desktop PCs. It provides the functionality, performance and versatility required by today's most demanding vision systems. The Framelink PCIe is a highly versatile frame grabber capable of acquiring images from two independent Camera Link Base cameras or one Medium camera. It features a flow-through pipelined architecture with an intelligent scatter/gather DMA engine providing over 200 MBytes/s of throughput. A full software suite, including drivers, C/C++ SDK, and an application program, is provided with the card.

### Applications

- Industrial
  - Silicon wafer and PCB inspection
  - Machine vision
  - Document scanning
- Medical
  - Ultrasound
  - X-Ray, CT and MRI
- Security
  - Police in-car surveillance
  - Biometric identification
- Military
  - Aerial mapping/survey
  - Battlefield imaging
  - UAV, Robotic vision

MOBILITY... CONVENIENCE... PERFORMANCE...  
**ExpressCard FRAME GRABBERS**

# Specifications for Framelink PCIe

## Features

Simultaneous acquisition from two Base cameras or one Medium Camera Link camera  
 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 level and auto white balance  
 Bayer pattern interpolation  
 Built-in programmable CC pulse generator  
 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

## Video Source

Two Camera Link inputs configured as dual Base or single Medium

- Uses two mini-CL 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: All base modes + 4x8, 3x10, 4x10, 3x12, 4x12, RGB30 and RGB36
- Mono, Bayer Color and RGB Color

## Software

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

## Environmental

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

## Mechanical

Low profile PCI Express form factor  
 6.6" x 2.53" (167.65 x 64.4mm)  
 Weight 2.05 oz., (58g)

## Regulatory

FCC 15 part B, CE, RoHS

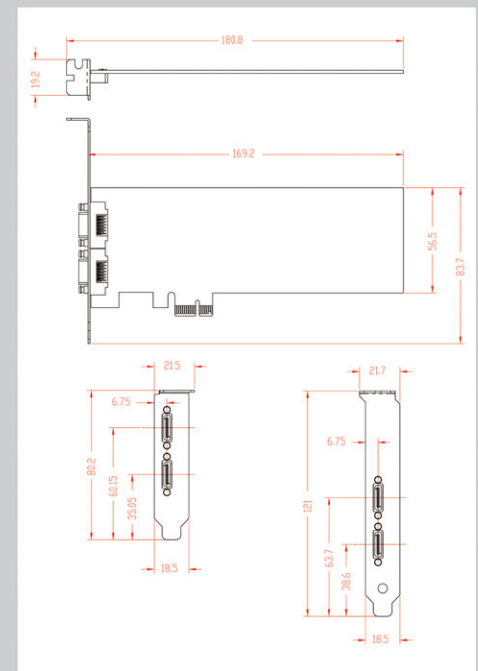
## Description

The Framelink PCIe is a professional, state of the art PCI Express video capture card, allowing users to view and store in real time mega-pixel video images from Camera Link sources on their desktop computers. The Framelink PCIe 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 PCIe offers easy to use camera configuration software, which allows for fast integration of the card into demanding machine vision environments.

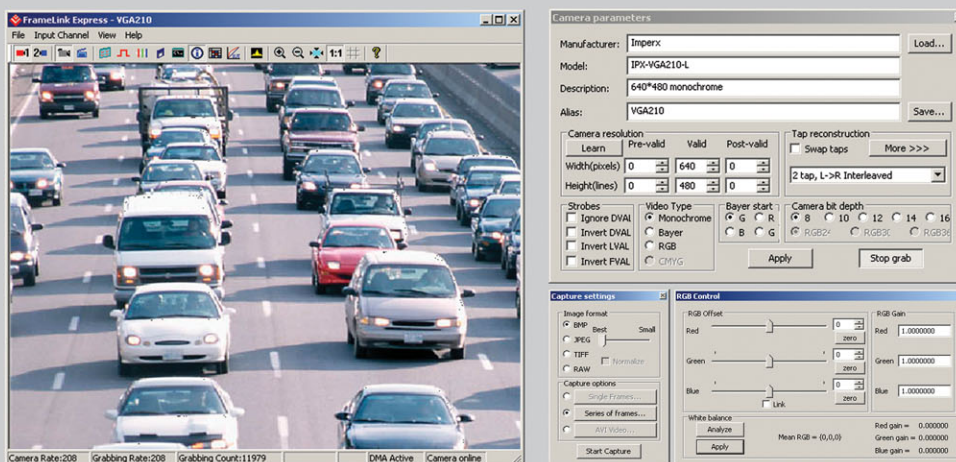
## Power Requirements

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

## Mechanical Dimensions



## Software



## Ordering Information

Ordering: VCE-CLPCIe01

For specific details and ordering information, contact us at [sales@imperx.com](mailto:sales@imperx.com).

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