



ExpressCard/54 Camera Link Video Capture Card



FrameLink ExpressCard/54 (VCE- CLEX01)

Simultaneous acquisition from two base cameras or one medium camera

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

The **IMPERX** FrameLink ExpressCard/54 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/54 is capable of capturing single or multiple frames and standard AVI clips on up to two base or one medium 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-CLEX01 card.

- Supports two independent base or one medium Camera Link interface
- ExpressCard/54 compliant providing 2.5 Gbps of bandwidth
- Intelligent scatter/gather DMA for fast, efficient use of PCIe bandwidth and system memory
- Flow-through pipeline 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

IMPERX Framelink ExpressCard/54 VCE-CLEX01 Specifications

Features Simultaneous acquisition from two base cameras or one medium Camera Link 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 Two Camera Link inputs configured as dual base or single medium:
 • Uses two mini-CL SDR 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
 Monochrome and color (RGB, Bayer and TRUESENSE)

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

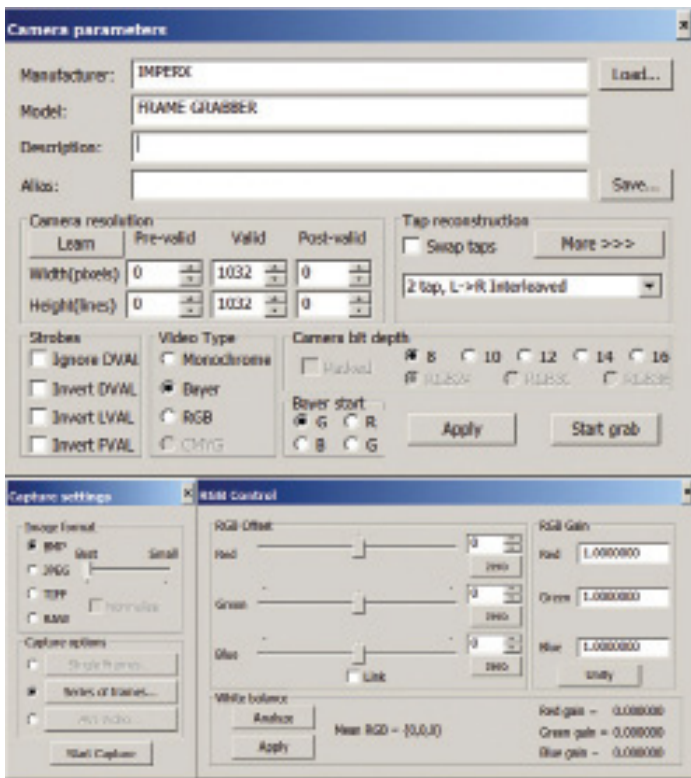
Regulatory FCC 15 part B, CE, RoHS

Mechanical ExpressCard/54 form factor
 Weight 1.91 oz., 50g

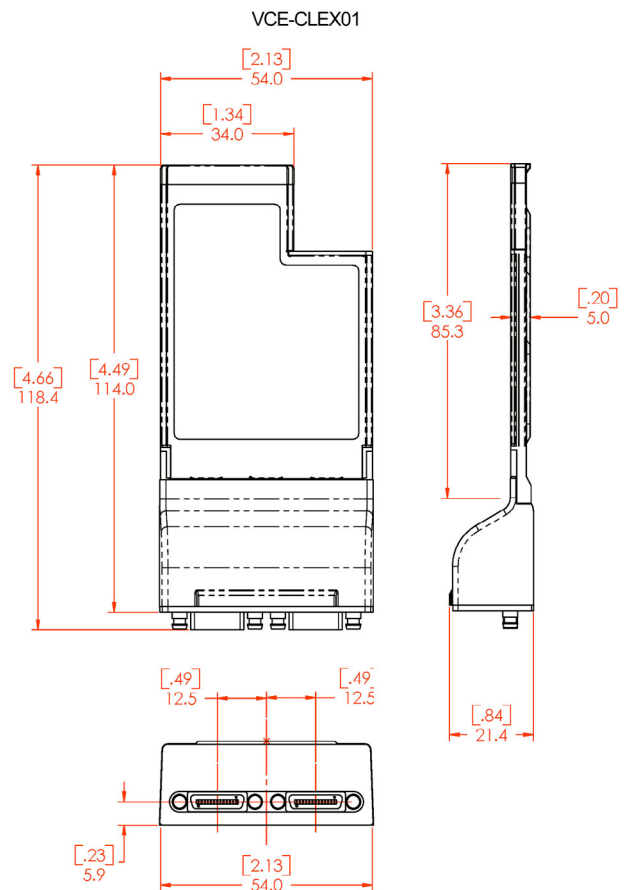
Order: VCE-CLEX01

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

Software



Mechanical Dimensions



IMPERX | 6421 Congress Avenue | Boca Raton | FL 33487 | USA
 Phone: +1-561-989-0006 | 1-866-849-1662 | Fax: +1-561-989-0045
 www.imperx.com | sales@imperx.com

