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 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 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

IMPERX

APPLICATIONS

Aerial Mapping	Automotive	Flat Panel Inspection	Metrology	Robotics
Aerial Robots: Military, Police	Biometrics	Food/Beverage	Microscopy	Scientific Apps
Aerospace	Broadcasting	Homeland Security	Military/Defense	Surveillance
Agriculture	Printed Circuit Board (PCB)	Law Enforcement	Pharmaceuticals	Semiconductors
Automation	Electronics	Intelligent Traffic Systems (ITS)	Particle Image Velocimetry (PIV)	Transportation
	Energy/Solar/Wind Power	Medical Devices/Imaging	Radiology	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 CameraLink 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
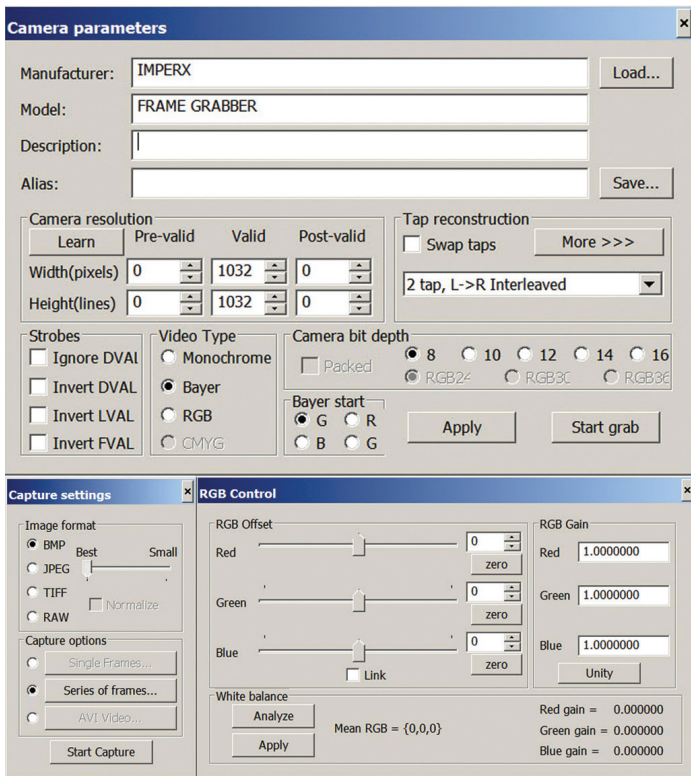
Regulatory
FCC 15 part B, CE, RoHS

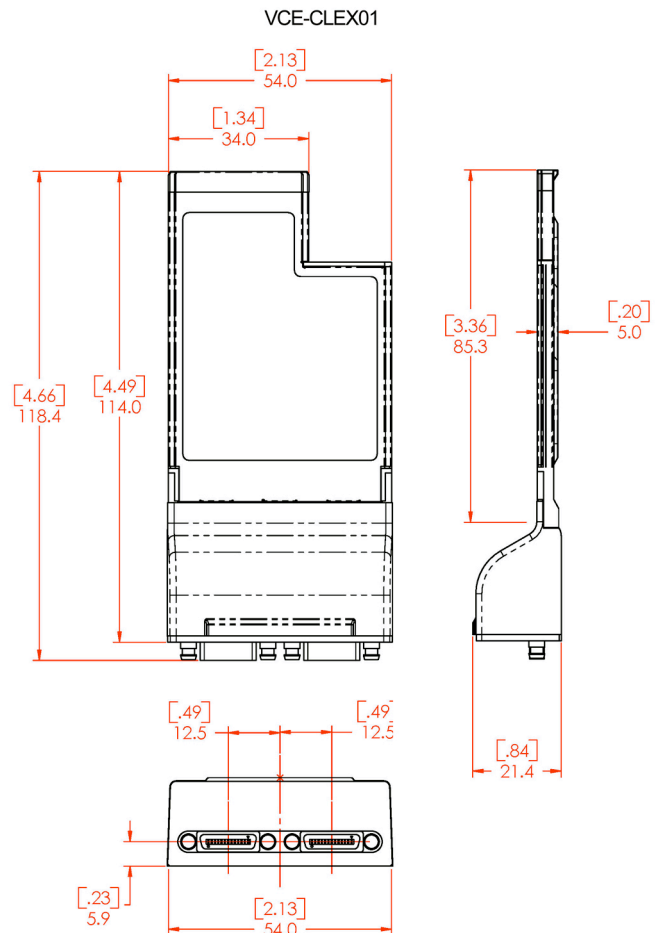**Mechanical**
ExpressCard/54 form factor
Weight 1.91 oz., 50g

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

VCE-CLEX01