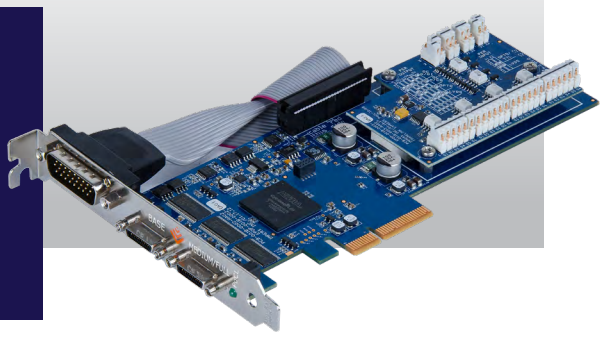
CHEETAH

RUGGEDIZED CAMERA SERIES

FRAME GRABBERS

VCE-CLPCIe04

Camera Link® PCIe x4 Card for Desktop PCs



Imperx: *VCE-CLPCIe04*

IMPERX Framelink PCIe x4 is a single-channel 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 x4 is capable of capturing single or multiple frames and standard AVI clips from one Base, Medium, Full or Deca 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-CLPCIe04 comes with easy to use camera configuration software for fast integration of the card into demanding machine vision environments.

Key Features

- PCIe x4 compliant providing 10 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
- Unique ‘auto-learn’ feature automatically recognizes camera parameters and simplifies CAM file creation
- 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
- 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
- Look up tables, histograms, hex pixel dump

Specifications

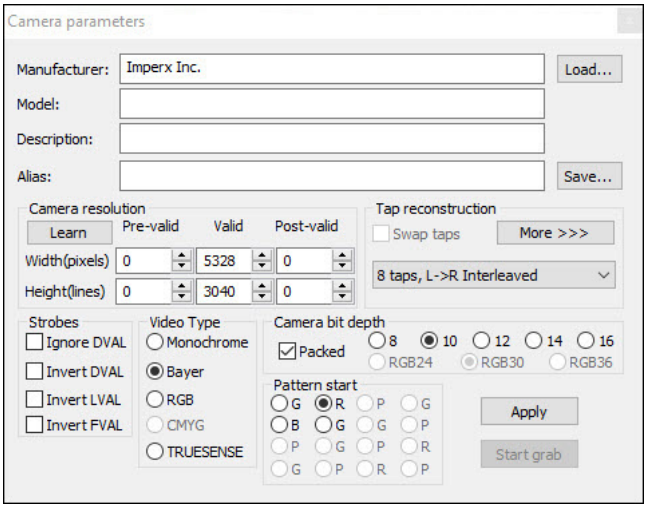
Feature	Description
Software	Application program: Full featured, intuitive, easy to use GUI Drivers: Windows 10/11 in 32- and 64-bit versions, DirectX, Halcon, LabVIEW, Matlab, MIL SDK: C/C++, COM, .NET, ActiveX – all with sample source code
Video Source	Uses two mini-CL (SDR/HDR) connectors Base: 24 video data bits plus strobes and clock per channel Medium: 48 video data bits plus strobes and clock per channel Full: 64 video data bits plus strobes and clock Deca: 80 video data bits plus strobes and clock Bi-directional serial interface
Video Format	Base: 1x8, 2x8, 3x8, 1x10, 2x10, 1x12, 2x12, 1x14, 1x16 and 3x8 (RGB24) Medium: 4x8, 3x10, 4x10, 3x12, 4x12, RGB30 and RGB36 Full: 8x8 Deca: 8x10 or 10x8 Monochrome and color: RGB, Bayer and TRUESENSE Sparse CFA

Feature	Description
Power	3.3 V DC +/-5%, 500 mA steady 1.65 W constant power
Mechanical	Low profile PCI Express form factor
Weight	1.59 oz. (45 g)
Environmental	-40 °C to +85 °C Operating
Humidity	90% non-condensing
MTBF	>390,000 hours @ 50°C (MIL-STD-785B, MIL-HDBK-217F)
Regulatory	FCC Part 15 Class B, CE, RoHS

IMPERX

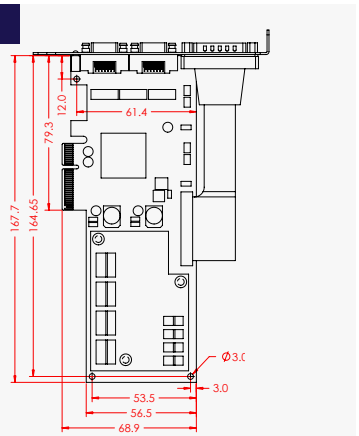
Industrial Cameras & Imaging Systems

Software



Dimensions

FRONT



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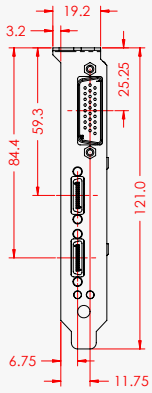
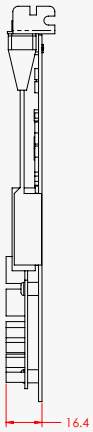
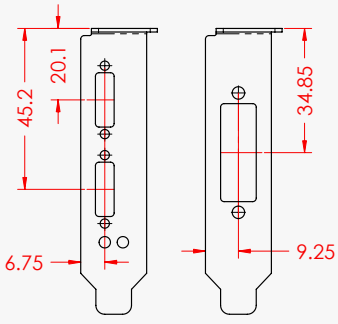


SIDE



Supplied with low profile bracket



Ordering Information

VCE-CLPCIe04

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

Rev: VCE-CLPCIe04_r4_2023

Quality Management System ISO 9001:2015 Registered
Environmental Management System ISO 14001:2015 Registered
DDTC Registered (Directorate of Defense Trade Controls, US Department of State)

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