



Axeon *LT*

PCI and PCI Express video capture boards

Low-profile video acquisition board for general purpose OEM applications

Axeon LT is a low-profile video acquisition board for standard definition analog cameras. Available in either PCI or PCI Express formats, Axeon LT incorporates a digital media processor and on-board frame buffer for reliable capture. Axeon LT supports both composite and S-Video camera inputs and digitizes in either square pixel or CCIR-601 formats.

Axeon LT Features

- PCI or PCI Express formats
- Low-profile PCI form factor
- Bus-mastering video acquisition
- Simultaneous real-time transfer of video to system memory, overlay, or display memory
- TI DM642 Digital Media Processor
- 32 MB SDRAM Frame Buffer
- High-quality 10-bit input digitization
- Smooth video scaling to arbitrarily sized windows
- Up to 3 multiplexed composite or 1 S-Video inputs
- CCIR and square pixel capture resolution
- NTSC and PAL video formats
- General purpose I/O trigger
- Packed or planar transfers
- Area of interest transfers to/from system and on-board memory
- Real-time image processing
- Windows® XP, Vista, and 7 drivers
- dPiction Windows®-based video capture application
- DirectShow and TWAIN support
- Optional SDK with sample applications

3815 River Crossing Parkway, Suite 100, Indianapolis, IN 46240
PH: +1-317-616-3800 FAX: +1-317-616-3330
Web: www.dpictimaging.com
Email: sales@dpictimaging.com



PCI Express Support

Axeon LT can be ordered in either PCI or PCI Express system interfaces allowing for system compatibility well into the future. PCI Express is the high-performance, next-generation interconnect that increases bandwidth, scalability, and reliability.

Low-Profile Support

Axeon LT supports the low-profile PCI form factor standard for space-constrained system installations. Axeon LT can be ordered with either a standard PCI bracket for full-height system installs or with a low-profile bracket.

Bus-Mastering Performance

Axeon LT's high speed bus-mastering capability with scatter gather support delivers real-time video data to system or display memory simultaneously, without intervention from the host CPU. Video data formatting and resolution is independent between streams, allowing for maximum bandwidth flexibility.

Digital Video Processor

By incorporating an on-board video processor, Axeon LT enables maximum flexibility in handling challenging application requirements. Equipped with a 32 MB SDRAM frame buffer, the video processor provides smooth scaling, pixel formatting, interrupt support, hardware overlay, and real-time video processing.

High-Quality Video Capture

Axeon LT provides high-quality 10-bit capture from up to 3 composite or 1 S-Video video sources in NTSC or PAL format. Video can be captured and stored in either square pixel or CCIR-601 resolutions, and can be scaled to any arbitrary size.

Camera Control

Axeon LT has a single I/O trigger for camera triggering. The trigger can be programmed as either an input trigger or an output trigger.

dVeloper Foundation Software Developers Kit

dVeloper is a comprehensive software developers kit that supports all dPict Imaging products, allowing for easy porting to new hardware. dVeloper is royalty free and runs under Microsoft Windows XP, Vista, or 7 operating systems. Source code samples and complete documentation are included in Visual C, C#, and Visual Basic .NET to provide insight to various hardware functions. Samples include video-in-a-window, overlay, video buffering, camera control, and more.

Specifications

Form Factor

- PCI or PCI Express system interface
- Low-profile form factor
- PCI 2.2 compliant, 5V and 3.3V universal slot
- PCI Express x1 connector

Video Inputs

- Up to 3 multiplexed composite or monochrome inputs (using S-Video to dual bnc cable)
- 1 S-Video input

Video Digitization

- NTSC (J, M, 4.43), PAL (B, D, G, H, I, M, N, Nc, 60), and SECAM (B, D, G, K, K1, L) support
- High-quality 10-bit digitization
- Square pixel and ITU-601 resolution support
- Software programmable control of gain, offset, hue, saturation, and sharpness
- EEPROM for storing configuration and calibration settings

Video Acquisition

- Smooth scaling to randomly-sized windows
- Bus-mastering video transfers to system memory, overlay, or display memory simultaneously.
- Hardware overlay of graphics over video
- RGB 32/24/16/15/8 and YUV 4:2:2 pixel formats
- Area of interest transfers to on-board and system memory
- 32 MB SDRAM frame buffer
- Extensive interrupt control for robust capture
- Real-time image flip, mirror, or rotate

I/O Control

- 1 general purpose I/O triggers
- Triggers programmable as input or output

Physical and Environmental

- 4.72" (length) x 2.50" (height)
- BNC female connector
- 4-pin MINI DIN female S-Video connector
- 3.5 mm mini phono jack
- Operating temperature: 0° C to 70° C
- Relative humidity: 5% up to 95% non-condensing

Available Software Developers Kit

- Compatible with dVeloper SDK
- Windows® XP, Vista, and 7 DLLs
- DirectDraw and DirectShow support
- TWAIN support
- Extensive documentation and sample code
- dPiction Windows-based capture application
- Sample applications with source code

Ordering Information

- Axeon LT PCI Standard Bracket: 10031-001
- Axeon LT PCI Low Profile-Bracket: 10031-002
- Axeon LT PCI Express Standard Bracket: 10032-001
- Axeon LT PCI Express Low-Profile Bracket: 10032-002
- dVeloper Foundation SDK: 90010



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