

The Basic FastVision is for OEMs who require a framegrabber with high bandwidth data capture. The Basic FastVision is a full-length PCI board with up to 256 MB of dedicated high speed (528 MB/sec) SDRAM. Up to two Channel Link ports are available for data capture. The Basic FastVision board can interface with any high speed Channel Link compatible camera. Applications include medical imaging, semiconductor wafer and mask inspection, wood and PCB Inspection.

Basic FastVision Key Features

- Single slot PCI board for data capture and transfer
- ▶ 64 to 128 MB of distributed SDRAM per port
- Two bi-directional Channel Link ports for packet switched inter-card transfers at 1.85 Gbits/sec per port
- ➤ 33 or 66MHz, 64 or 32 bit primary PCI bus interface with a (non-transparent) bridge to local PCI bus

Channel Link Cameras

BASLER 7

- L301bc digital color line scan
- ◆ L100b Series Line Scan Monochrome 1k or 2k
- A201b digital monochrome area scan
- ♦ A201bc digital color area scan

PULNIX

- ♦ TM-1040 1" Progressive Scan-1k x 1k- 30 fps
- ★ TM-6710 1/2" Progressive Scan 120 fps
- ◆ TM-1020-15CL Progressive Scan CCD
- TM-1320-CL − 1" Progressive Scan 1.3k x 1k
- PL5000 SF High Resolution Line Scan CCD
- ◆ TMC-1000 1k x 1k Progressive Scan color camera
- ◆ TMC-6700 VGA Progressive Scan color camera

Alacron supports all additional Channel Link cameras. Please call manufacturer for details.

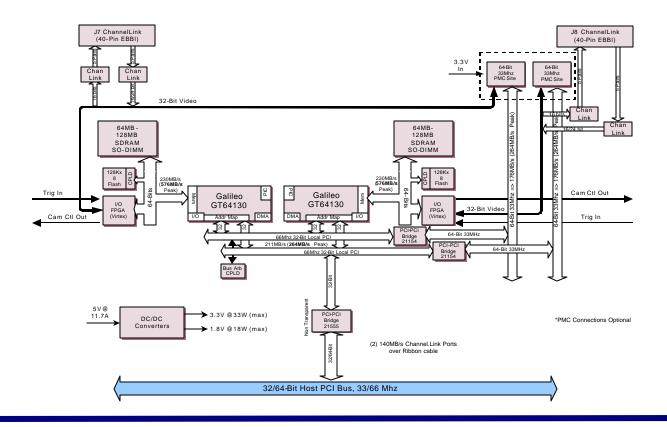
Basic FastVisionTM Daughter-card Features

Two PMC connectors on the back of the Basic FastVision board allow one to increase and expand the computational processing power and I/O capabilities. These PMC connectors are PCI Rev. 2.1 compliant, guaranteeing third-party PMC compatibility.

Alacron has the following daughter-cards available:

- Fast4: A PMC board that expands the FastImage PCI Board with up to eight additional TriMedia processors
- FastI/O: A PMC daughter-card that lets you add extra I/O ports to your FastImage or FastFrame PCI board
- FastMem: A PMC daughter-card with 512 Megabytes of additional memory





PCI Interface

- Clock rate 66 or 33 MHz
- Data width 64 or 32 bits
- Standards compliance PCI Rev. 2.1
- Peak DMA rate 132 MB/sec. (PMC)

Camera Control

- Two exposure control outputs
- Two pixel clock inputs
- Four line/frame valid inputs
- Two external trigger inputs
- Power no camera power provided by card; use an external supply
- RS-422 signaling

Channel Link

Two 66 MHz 28 bit channel link ports for either camera inputs (3) 8 bit taps at 50MHz, or inter-board communication port (100MB/s).

Each port as a camera input, bidirectional (one in, one out) inter-board I/O link, or 32 bit bi-directional FastChannel interface

Interfaces via PMC Daughter-card

NTSC/PAL Comp. Video Cap.

- Input levels 1V peak-to-peak nom., 0.3 to 1.2V peak-to-peak max.
- Input impedance 75Ω
- Channel crosstalk -50 dB max.
- Resolution 8 bits
- Formats supported PAL BGHI, PAL N, PAL M, NTSC M, NTSC N, NTSC 4.43, NTSC-Japan, SECAM

Analog Video Capture (3 channels)

- Input levels 1V peak-to-peak nom., 2.0V peak-to-peak max., 50mV min. sync level when using composite sync
- Input Impedance 75Ω

- Resolution 8 bits x 3 channels
- Formats supported line scan and area scan
- Each input can operate async with an 80 MHz sample rate

Digital Video Capture

- Common mode input range -5V to +5V
 - (0 to 2.4V with LVDS option)
- Input sensitivity 250mV differential (100mV with LVDS option)
- Input hysteresis 50mV typical
- Max. clock rate 80 MHz
- Max. input data width 64 bits
- Formats supported ITU-R BT.656 (4:2:2 interlaced color), 8/10-bit mono. variable/line scan, 8/10-bit raw data, 8/10-bit RGB,16-bit raw at 20 MHz (40 MB/sec.)
- RS-422, LVDS, PECL signaling