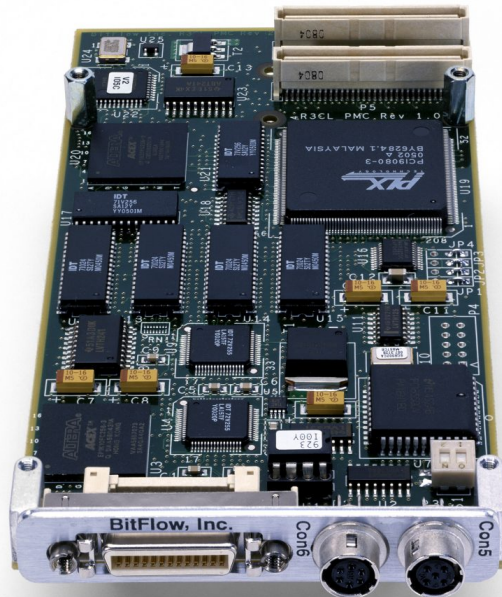


ADVANTECH

BitFlow

Frame grabbers for machine vision



R3-CL-PMC

The R3 frame grabber family has been designed to simplify the task of interfacing today's Camera Link cameras to a wide array of imaging applications. The R3-CL-PMC can acquire from almost every Base CL camera manufactured. The addition of a PCI Mezzanine Card (PMC) version of the R3-CL adds even more flexibility to our product by allowing embedded application developers to take advantage of a proven camera interface product by installing this board onto an array processor or single-board computer.

The R3-CL family is the second generation of BitFlow frame grabbers that uses our FlowThru technology. The principle here is to do away with the frame buffer that traditional frame grabbers are built around, and instead optimize the data path so that the images flow through the board and into the host's memory with no latency and zero CPU usage. The only on-board storage is a FIFO to handle the asynchronous nature of the PCI bus. Finally, the entire system is interrupt based, so modern, multi-threaded, applications need not waste processing resources on controlling acquisition.

There are a number of different models which are now all out of production.

Specifications

- 32-bit/33MHz PCI 2.2 compliant card
- Single-size, PCI Mezzanine Card (PMC) interface board supporting both 5 V and 3.3 V PCI configurations
- Base Camera Link interface for a single area or line scan camera with 1, 2 or 3 channels of up to 24, 12 or 8 bits per channel respectively
- Flow-Thru architecture featuring a Scatter/Gather DMA engine that supports the direct transfer of data to memory in real-time
- Acquires image sizes up to 512K pixels by 32K lines (vertical size is unlimited for line scan cameras)
- Efficient packing of 24-bit pixels
- On-the-fly reformatting for multi-channel cameras
- 11 user-programmable I/O signals (4 in/7 out)
- Up to 50MHz acquisition
- Optional 16-bit in/16-bit out LUT
- Serial port communications
- Version 1.1 compliant serial DLL

- Drivers and DLLs for Windows NT, 2000, XP and Server 2003
- Supported by BitFlow SDK 3.00 or higher

Models

R3-PMC-CL23-L

- R3 universal PCI Mezzanine Card Base Camera Link
- One tap cameras up to 24 bits
- Two tap (odd/even line) cameras up to 12 bits
- 16-in/16-out LUT

R3-PMC-CL23

- R3 universal PCI Mezzanine Card Base Camera Link
- One tap cameras up to 24 bits
- Two tap (odd/even line) cameras up to 12 bits

R3-PMC-CL13-L

- R3 universal PCI Mezzanine Card Base Camera Link
- One tap cameras up to 24 bits
- Two tap (odd/even pixel) cameras up to 12 bits
- 16-in/16-out LUT

R3-PMC-CL13

- R3 universal PCI Mezzanine Card Base Camera Link
- One tap cameras up to 24 bits
- Two tap (odd/even pixel) cameras up to 12 bits