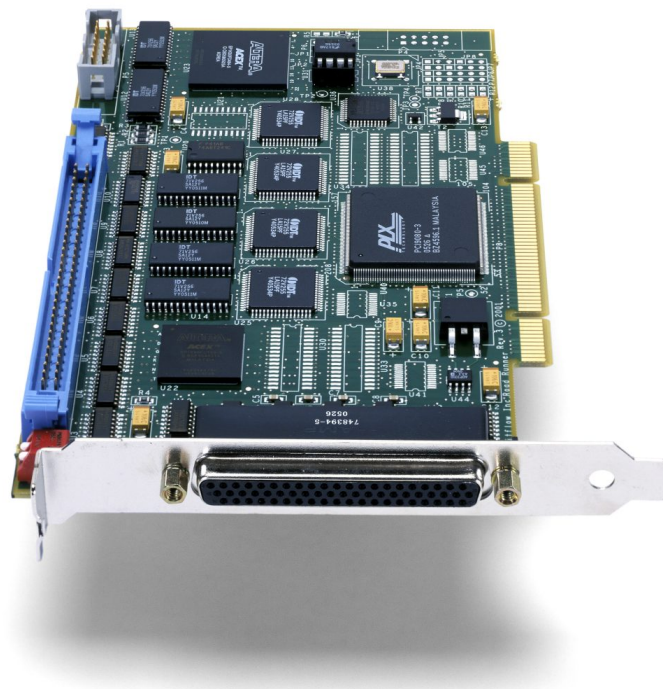


ADVANTECH

BitFlow

Frame grabbers for machine vision



R3-DIF

The R3 frame grabber family has been designed to simplify the task of interfacing with today's digital cameras to a wide array of imaging applications. The R3-DIF can interface to almost every LVDS camera manufactured (up to 32 bits). Combining the power of a proven, sophisticated acquisition/DMA engine with a flexible camera interface and control architecture, our newest product is an excellent choice for end-users, system integrators, and OEMs.

The R3-DIF 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.

Specifications

- Half-size, 32-bit/33MHz PCI 2.2 compliant card
- Supports both 5 V and 3.3 V PCI slots
- Flow-Thru architecture featuring a Scatter/Gather DMA engine that supports the direct transfer of data to memory in real-time with no latency or CPU usage
- Acquires image sizes up to 512K by 32K pixels (vertical size is unlimited for line scan cameras)
- LVDS/RS422 (32-bit) area or line scan camera interface supporting a single camera with up to four 8-bit channels, two synchronized cameras or two multiplexed asynchronous cameras
- 9 user-programmable I/O signals (4 in/5 out)
- Multiple trigger modes
- Up to 40MHz acquisition for LVDS and 30MHz for RS-422 (contact us for higher clock rates)
- On-the-fly reformatting for multi-tap cameras
- Optional 16-bit in/16-bit out LUT
- Cables and configuration files for more than 200 industrial cameras
- Drivers and DLLs for Windows NT, 2000, XP and Server 2003
- Supported by BitFlow SDK 3.00 or higher