RADIENT EV-CL CAMERALINK FRAME GRABBER

RADEV1GCLDB
Dual-Base, 1GB DDR, HDR26 (mini CL)



- CameraLink 2.0
- CL Full 80-bit 85 MHz
- Up to 4 Base or 2 Full cameras per board
- Power over Camera Link (PoCL)

PRODUCT DESCRIPTION

The Matrox Radient eV-CL is a Camera Link frame grabber with the most comprehensive features currently available in the industry. Built upon the field-proven design of the Radient eV–series of frame grabbers, the new Matrox Radient eV-CL offers reliable image acquisition, extended cable length support, and high frame rate image capture that will extend the effectiveness of the Camera Link standard for many years to come.

The Matrox Radient eV-CL is capable of handling image capture from a single lowestdata-rate Camera Link device to multiple maximum-bandwidth Camera Link cameras.
With the possibility of interfacing up to four (4) Base or two (2) Full/80-bit mode Camera Link cameras at up to 85 MHz on a single board with Power over Camera Link (PoCL) support, the Matrox Radient eV-CL provides users with the flexibility to configure the system to best match their imaging needs while simplifying overall setup.

A PCIe 2.0 x8 host interface provides the throughput necessary to ensure the continuous flow of pixels from the Matrox Radient eV-CL to host memory. With a peak bandwidth of up to 4GB/s, the Matrox Radient eV-CL's host interface prevents pixels from inadvertently being discarded. Furthermore, via a programmable option, the Matrox Radient eV-CL is capable of handling applications where image capture rates exceed the tens of thousands of frames per seconds, all without host intervention.
The Matrox Radient eV-CL is also designed to work at extended cable lengths. The feature allows cameras to be placed at distances previously not possible from the computer while maintaining the same maximum throughput.

Specifications:

- Half-length, full-height board
- PCIe® 2.0 x8 host bus interface
- 1 GB of DDR3 SDRAM
- Camera Link® 2.0 compliant
    - Two (2) independent Base Camera Link® ports (dual-Base)
    - One (1) Medium/Full Camera Link® port (single-Full)
        - up to 80-bit mode
    - Four (4) independent Base Camera Link® ports (quad-Base)
    - Two (2) independent Medium/Full Camera Link® ports (dual-Full)
        - up to 80-bit mode
    - 20 MHz to 85 MHz Camera Link® clock
    - Power over Camera Link® with SafePower
- Extended Camera Link® cable length support
- Supports frame and line scan sources
- On-board image reconstruction
- On-board color space conversion
    - Input formats

        - Mono/Bayer 8-bit and 16-bit
        - BGR packed 24-bit and 48-bit
    - Output formats
        - Mono 8-bit and 16-bit
        - BGR packed 24-bit and 48-bit
        - BGR planar 24-bit and 48-bit
        - YUV 16-bit
        - BGRa 32-bit
- On-board look-up tables (LUTs)
    - 8/10/12 bit support
- On-board Bayer conversion
    - GB, BG, GR, RG pattern support
- One (1) / two (2) DBHD-15 male GPIO connector(s) (dual-Base and single-Full / quad-Base and dual-Full)
    - Three (3) TTL configurable auxiliary I/O's
    - Two (2) LVDS auxiliary inputs
    - One (1) LVDS auxiliary output
    - Two (2) opto-isolated auxiliary inputs
- One (1) / two (2) optional additional DBHD-15 male GPIO connector(s) (dual-Base / quad-Base)
    - Three (3) TTL configurable auxiliary I/O's
    - Two (2) LVDS auxiliary inputs
    - One (1) LVDS auxiliary output
    - Two (2) opto-isolated auxiliary inputs
- Support for one (1) quadrature rotary encoder per Camera Link® port
- MIL license fingerprint and storage

SPECIFICATIONS

Bustyp	PCI Express 2.0 x8
Height	18.7 mm
Length	167.7 mm
Memory RAM	1024 MB
Temperature range from	0 °C
Temperature range to	55 °C
Width	111.1 mm