PCIe-CML64F

Single Channel PCI Express Camera Link Frame Grabber

New

Grayscale Camera | RGB Camera | Camera Link | PCI EXPRESS® | Digital

Features

- Supports one channel Camera Link in base/medium/full configuration
- PCI Express x4 compliant
- High-speed image transfer rates up to 640MB/sec
- Acquisition pixel clock rates up to 85 MHz
- 128MB of 200MHz DDR SDRAM on-board memory
- 2 programmable GPIO, differential/TTL trigger input
- Serial communication via Camera Link

Software Support

- Supports Windows XP/XP embedded
- Supports VC++ 6.0, VB 6.0, BCB 6.0

Ordering Information

PCIe-CML64FB	PCI Express x4 Camera Link frame grabber
PCIe-CML64FP	PCI Express x4 Camera Link frame grabber with FPGA image pre-processing

Introduction

The PCIe-CML64F is a PCI Express x4 compliant Camera Link® frame grabber that supports one channel base/medium/full configuration, multi-tap area, and line scan color and monochrome Camera Link cameras.

The PCIe-CML64F series utilizes an FPGA design for greater image acquisition flexibility, higher performance, and improved pre-processing functionality (such as pixel gain/offset correction).

The PCIe-CML64F provides a 128MB frame buffer to buffer and rearrange pixel data from the camera, before passing it to the PCI Express bus DMA, a feature ideal for industrial machine vision applications, such as high speed inspection and high resolution acquisition.

Scanning modes supported by the PCIe-CML64F include using a line-scan camera in the following modes:
▪ Page trigger – triggered events trigger the acquisition of a given number of lines (an area acquisition system)
▪ Line trigger – the system continuously acquires and transfers lines from the camera based on the line trigger signal (no lines are skipped)
▪ Free-run – image acquisition is controlled by software, without any trigger input

Specifications

Video Input

Camera Link LVDS deferential signals

Base configuration: via a Data1 MDR26 26-pin connector

Medium and full configuration: via Data1 and Data2 MDR26 26-pin connectors

Maximum Camera Link data rate: 85MHz

Camera Control

RS-422 signal: CC1-CC4 control signals in the Data1 MDR26 26-pin connector

External Signal Input

RS-422 signal: external A, B, Z phase deferential signal inputs, maximum frequency: 1 MHz

External page trigger

One channel digital input , one channel digital output

Form Factor

Half length PCI Express x4 compliant

Dimensions

174.62 x 111.15 mm

Camera Support

Base cameras: 3 x 8-bit/tap, 1 x 16-bits/tap, 2 x 12-bit/tap

Medium cameras: 4 x 8-bit/tap, 4 x 12-bit/tap

Full cameras: 8 x 8-bit/tap

Power consumption

0.6A @ +12V, 2A @ +3.3V