INTRODUCTION

The PCIe-FRM26_B is a Camera Link frame grabber that is based on the PCI Express x4 interface, and supports three channel Base configuration camera link cameras.

GENERAL DESCRIPTION

◆ PCI Express x4 interface
◆ Support 3-CH Camera Link Base Configuration
◆ High-speed image transfer rates up to 2GB/sec

APPLICATION

◆ Black and White, Color Image Display
◆ Image Acquisition (Pattern, Particle etc)
◆ Inspection Equipment (Sensor, Semiconductor, Device etc)
◆ Medical Image Capture n(X-ray, Supersonic)
◆ Security Solution (DVI Surveillance Cameras)

SOFTWARE

◆ Operating System
  ▪ Windows 2000/XP/7/8/10 (32/64bit)
◆ API
  ▪ Interface with Application through client DLL

SPECIFICATION

◆ Features
  ▪ PCI Target and Bus Master Operation
  ▪ PCI Express 4x Interface (2.5GT/s per Lane)
  ▪ Maximum camera link data rate : 85MHz
◆ Functions
  ▪ Three Base Configuration Camera Link
**Board Feature**

**Connector Map**

**Frame Grabber**

| Inner shield | Z0- | Z0+ | Z1- | Z1+ | Z2- | Z2+ | ZCLK- | ZCLK+ | Z3- | Z3+ | ZDRTX- | ZDRTX+ | ZDRTX- | ZDRTX+ | ZCC1- | ZCC1+ | ZCC2- | ZCC2+ | ZCC3- | ZCC3+ | ZCC4- | ZCC4+ |
|--------------|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|--------|--------|--------|--------|-------|------|------|------|------|------|------|------|------|
|              | 26  | 13  | 25  | 13  | 24  | 13  | 23   | 13   | 22  | 13  | 21   | 13    | 20    | 13    | 18   | 13  | 17   | 13  | 16   | 13  | 15   | 13  | 14  |

**Base Camera Link: J5**

**Frame Grabber**

| Inner shield | Y0- | Y0+ | Y1- | Y1+ | Y2- | Y2+ | YCLK- | YCLK+ | Y3- | Y3+ | YDRTX- | YDRTX+ | YDRRX- | YDRRX+ | YCC1- | YCC1+ | YCC2- | YCC2+ | YCC3- | YCC3+ | YCC4- | YCC4+ |
|--------------|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|--------|--------|--------|--------|-------|------|------|------|------|------|------|------|------|
|              | 26  | 13  | 25  | 13  | 24  | 13  | 23   | 13   | 22  | 13  | 21   | 13    | 20    | 13    | 18   | 13  | 17   | 13  | 16   | 13  | 15   | 13  | 14  |

**Base Camera Link: J6**

**Frame Grabber**

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<th>Inner shield</th>
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**Base Camera Link: J8**

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**FPGA**

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PCI Express 4x Interface
**PHYSICAL/ENVIRONMENTAL**

- **From Factor**
  - PCI express 4x

- **Dimension**
  - Dimension (not including connectors) : 159.5mm x 112.5 mm

- **Temperature**
  - 0 to 60°C, Operating
  - -20 to + 80°C Storage

- **Relative Humidity**
  - 5 to 95%, Non-considering

- **Power Requirement**
  - 3.3V Single Power Operation at Max. 300mA

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**BLCOK DIAGRAM**

[Diagram of PCIe-FRM26 _B INTERNAL BLOCK - FPGA showing connections and components such as PCI Target / Master, MEM Decoder, IO Decoder, CLOCK syn., Interrupt Controller (0xb0), BUS Mux, Reserved (0x00 ? 0x5F), UART (0x60), Reserved (0x70 ? 0xAF), Interrupt controller, Camera Link(LVDS) (0xC0), DIO (0xD0), Reserved (0xE0 ? 0xFF), MEM Decoder, Ext. Address, Data, Control.]