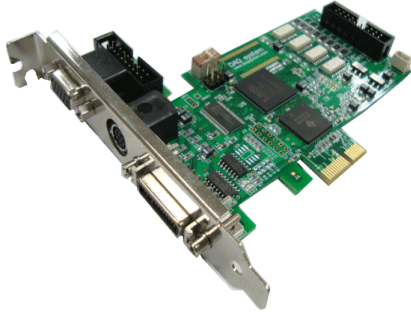


## PCIe-FRM11

### Camera Link Frame Grabber with PCI Express Interface



#### **INTRODUCTION**

The PCIe-FRM11 is a PCI Express board having the function of processing the frame data received from the Camera Link Interface and save the data in the system's main memory. In addition, it has the 8 digital Inputs and 8 digital outputs for external control.

#### **GENERAL DESCRIPTION**

- ◆ PCI Express V1.0 Compatible
- ◆ PCI Bus Master Operation
- ◆ 1-CH Camera Link Base Configuration
- ◆ 8 Channel Digital Input / Output
- ◆ 9600 bps UART Tx/Rx

#### **APPLICATION**

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

#### **SOFTWARE**

##### ▣ Operating System

- Windows 2000/XP/7/8/10 (32/64bit)

##### ▣ API

- Interface with Application through client DLL

#### **SPECIFICATION**

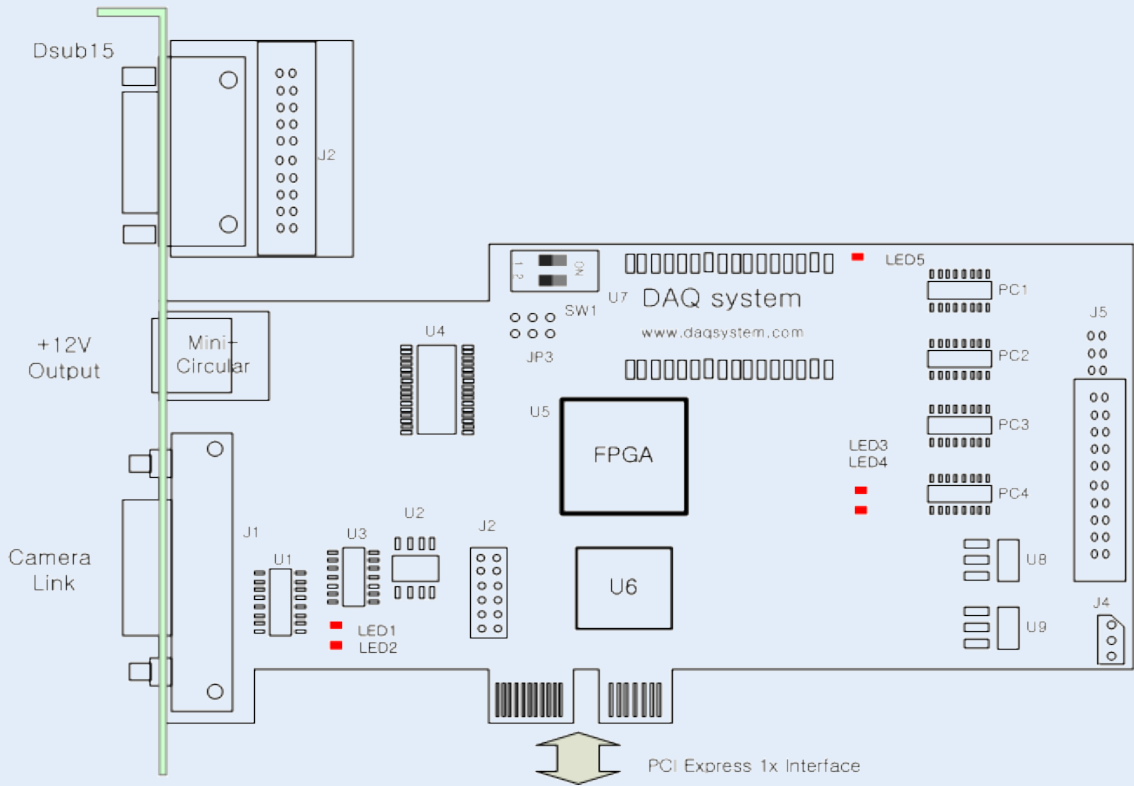
##### ▣ Features

- PCI Local Bus Specification V2.0
- PCI Target and Bus Master Operation
- PCI Express 1x Interface
- 24/16bit Image Frame Data Acquisition
- UART communications(8bit Data, 1 Start, 1 Stop, No Parity, 9600bps)
- 5bit Digital Input & 8bit Digital Output (to front DB-15)

##### ▣ Functions

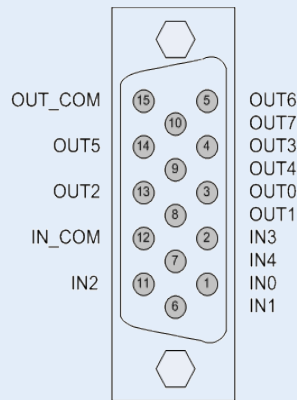
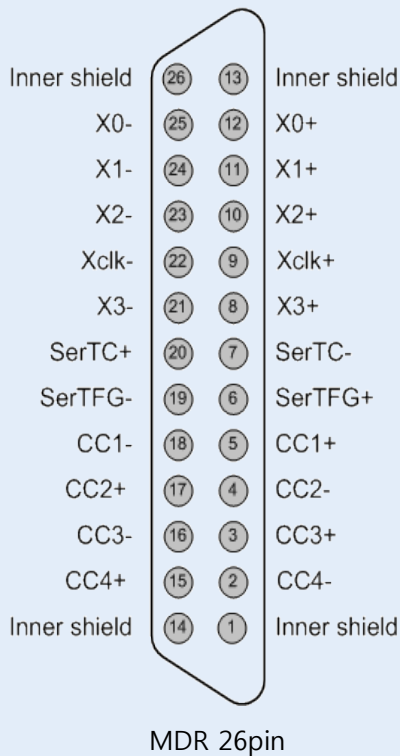
- All of the board functions are controlled by the logic program of the FPGA.
- Receive image frame & UART signal receive/transmit & Digital I/O Output through LVDS interface
- 8bit Digital Input : Photo-coupler input  
8bit(Optional)
- 8bit Digital Output :Photo-coupler output  
8bit(Optional)
- LVDS Output 4bit

■ **Board Feature**

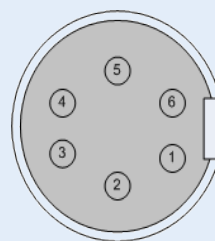


■ **Connecter Map**

**Frame Grabber**



D-SUB 15pin



Mini Circular  
6pin 12V Power  
output

**PHYSICAL/ENVIRONMENTAL**

▣ **From Factor**

- PCI express 1x

▣ **Dimension**

- Camera Link Connector : MDR 26pin
- External I/O Connector : D-SUB 15pin  
Photo-coupler Digital Input 5bit & Photo-coupler Digital Output 8bit
- Mini-Circular Connector : 6pin
- Dimension (not including connectors) : 115mm x 50 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

**BLOCK DIAGRAM**

