Remote Camera Link over Fiber Optics System

Overview

The Remote Camera Extension System enables frame acquisition from a remote camera at a distance of up to 40 km without repeaters. The remote camera connects directly to the extension module that transmits the camera image over fiber optic cables to either a GiDEL PCIe Proc board mounted in a host computer or to a GiDEL RCLGR box that can connect to any user frame grabber. Connection to the Proc board offers a number of options including: 1. Image acquisition and processing using GiDEL open source ProcFG grabbing and processing sytelem. 2. Retransmission of the signal in other protocols such as SDI, DVI, HDMI, CoaXPress, etc. The Extension kit supports ProceV, ProcStarIV and ProcelII/ IV Proc board families.

Key Features

- 4 SFP+ bays each at 6.144 (or 6.25GHz) for up to full duplex of ~ 25Gb/s (20Gb/s net transfer rate).
- Maximum distance with no repeaters: 40Km.
- Direct connection to GiDEL's Frame grabbers / Proc Boards, thus reducing server infrastructure cost and components.
- Camera Link Medium or Dual Base data on a single SFP+ link.
- Camera Link Full mode data at an average line rate transfer of up to 4.8Gb/s on single SFP+.
- All camera Link modes at maximum transmission rate via two SFP+ links
- A remote RS232 via an RJ45 connector
- Status LEDs indicting power, link connection, transmission activity, and user defined functionality
- Link BER better than 10-12 control BER less than 10-18
- 4 remote opto-coupler inputs
- Mounts on to wall or any device box
- For Proce* boards, option for outputs such as SDI, HDMI, etc.

Up to 14 Remote Camera Link Cameras with RS232 and I/O lines per link
Remote Camera over Fiber Optics System

Grabbing subsystem based on 3\textsuperscript{rd} party Frame

Grabbing subsystem based on GiDEL ProcFG

Grabbing and Processing System