Camera link Optical Extender

◈ FCL-300T/R
(Full Configuration)

Description

Kortron, a leader in the market of pixel to pixel cabling solution, created Fiber Optics based Camera Link cable. Kortron cabling solution will be a perfect choice for overcoming the problems of facility access, capital cost, distance, EMI, ESD and bandwidth. Camera Link is a high-speed camera/frame grabber interface designed for high performance vision applications. Standard Camera Links deliver signals to 10 meters or less, occurring inflexible situations in many applications which requires longer distance image transmission between the camera and the frame grabber. Kortron's Optical Camera Link Cable can send signals up to 20km without electrical or magnetic noises that plague performance of high speed Camera Link. Kortron's Optical Camera Link solution consists of plug and play modules with FCL-300T connecting to camera and FCL-300R connecting to the frame grabber(or PC) side. The FCL-300T receives, converts and sends out video data to fiber from the camera while FCL-300R receives the optical signals, converts them back into video data and sends to the frame grabber.

Key Features

- ◆ All of Camera-Link Interface Compliance (Area and Line Scan)
- ◆ Support Full Configuration (CC1 ~ 4, RS232, Max 10 Ports, LVAL, DVAL, FVAL)
- ◆ Support Pixel clock from 20 - 85MHz
- ◆ Auto detect and Generate Pixel clock
- ◆ Zero loss and transparent transport
- ◆ Locking DC power connector
- ◆ Attaches to the compact SDR26 connectors
- ◆ Status Monitoring LEDs (PWR, ACT, Error)
- ◆ Intelligent cable disconnect detecting (Camera cable, Fiber cable)
- ◆ Re-synchronization buttons
- ◆ LC duplex fiber link (8-core fiber)
- ◆ Allows remote operation up to 20km

Applications

- ◆ Machine Vision Applications
- ◆ Product inspection - PCB, LCD, Wafer
- ◆ Bar code reading and sorting
- ◆ Medical Imaging
- ◆ High precision security surveillance
- ◆ Vehicle license plate reading/recording
- ◆ Port/Harbor cargo container management
- ◆ Railroad measurement/inspection
- ◆ Intelligent Traffic Systems (ITS)
- ◆ Border Control
- ◆ Cameras placed in harsh environment
  - Nuclear plant, Chemical plant, Factory
- ◆ Long haul image transmissions
- ◆ Bridge inspection
- ◆ Military & Defense Applications
- ◆ Astronomy
- ◆ Computer microscopy
- ◆ Multi-media

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Typical Set Up Diagram

Technical Specifications

- General Specification

Operating Temperature	0 ~ 40 [ºC]
Input Voltage	DC 12 ~ 24 [V]
Typical Supply Current @ 12V DC	CM-base 250 [mA]
Connector Type	Molex 53259-0329 Male
Weight (Approximate)	300 Gram each module

- Camera link Interface

Product Model	**FCL-300T / R**
Pixel Clock Range	20 ~ 85 [MHz]
Supported Camera Configuration	Base / Medium / Full Configuration (10 Taps)
Effective Data Throughput	
Connector Type	Mini Camera Link (SDR)

- Optical Interface

Operating Wavelength	1350 [nm]
Min Optical TX Output Power	-2.5 [dBm]
Transmission Distance	Up to 250 [m]
Connector Type	LC Duplex
Fiber Type	50/125 um or 62.5/125 um Multimode fibers