Camera link Optical Extender
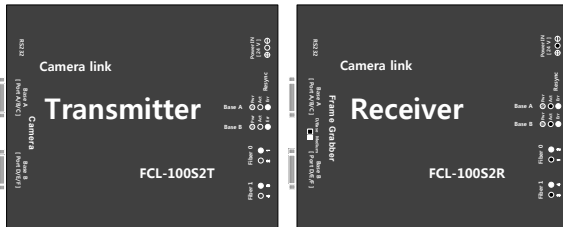
SYSCOM KOREA
www.syscomkorea.com

◈ FCL-100S2 TR
(Base Configuration)

Description

Syscom Korea, a leader in the market of pixel to pixel cabling solution, created Fiber Optics based Camera Link cable. Syscom Korea 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. Syscom Korea's Optical Camera Link Cable can send signals up to 20km without electrical or magnetic noises that plague performance of high speed Camera Link. Syscom Korea's Optical Camera Link solution consists of plug and play modules with FCL-100S2T connecting to camera and FCL-100S2R connecting to the frame grabber(or PC) side. The FCL-100S2T receives, converts and sends out video data to fiber from the camera while FCL-100S2R receives the optical signals, converts them back into video data and sends to two frame grabbers.

Key Features

◆ All of Camera-Link Interface Compliance (Area and Line Scan)

◆ Support Base Configuration (CC1 ~ 4, RS232, 6 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

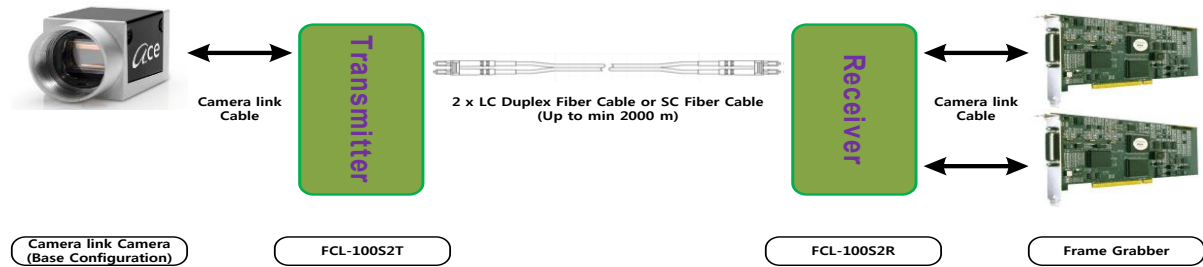◆ LC duplex fiber link (2-core fiber)

◆ 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

Camera link Optical Extender

Typical Set Up Diagram

Camera link Cable

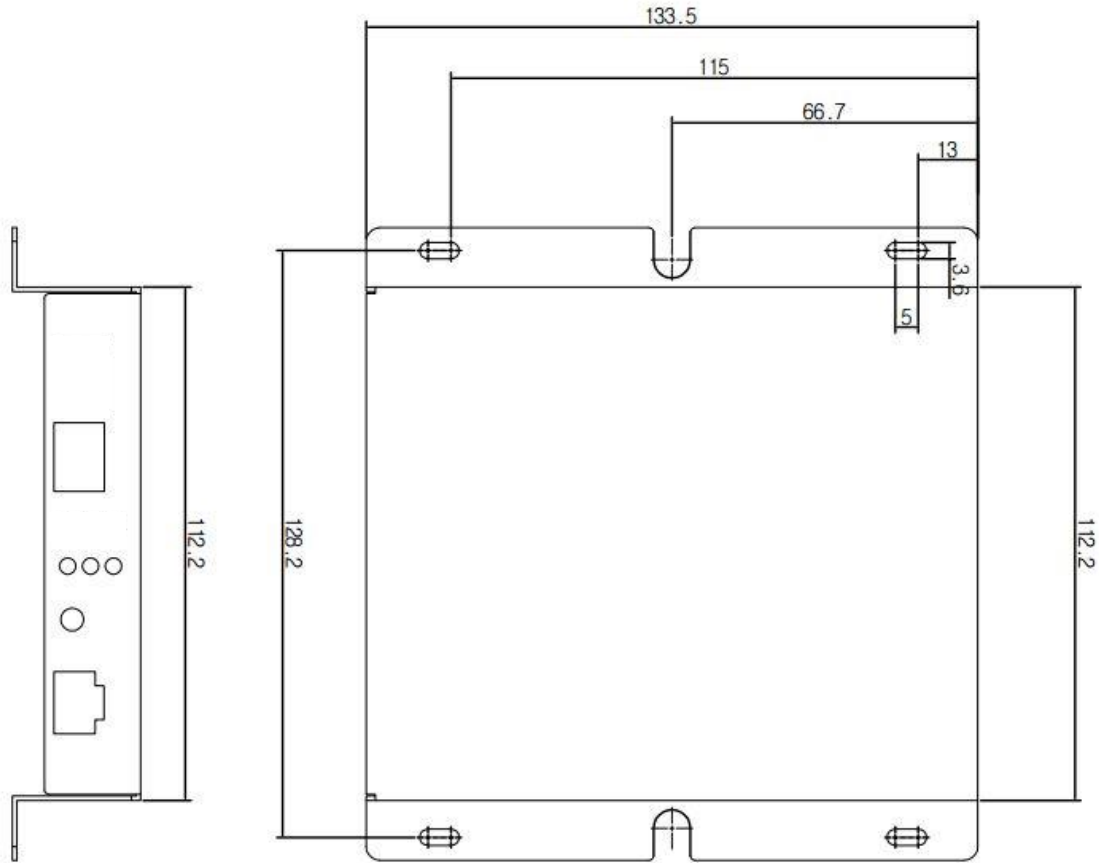Transmitter

2 x LC Duplex Fiber Cable or SC Fiber Cable
(Up to min 2000 m)

Receiver

Camera link Cable

Camera link Camera
(Base Configuration)

FCL-100S2T

FCL-100S2R

Frame Grabber

Technical Specifications

Camera link Interface

Product	FCL-200L T/R
Pixel Clock Range	20 ~ 85 [MHz]
Supported Camera Configuration	Base
Sync. Signals	LVAL, FVAL, DVAL
Camera Control	CC1 ~ CC4
Serial Communication	SerTFG, SerTC
Connector Type	Mini Camera Link (SDR)

Optical Interface

Operating Wavelength	1310 [nm]
Min Optical TX Output Power	-2.5 [dBm]
Transmission Distance	Max 2000 [m]
Connector Type	LC Duplex
Fiber Type	9/125 [um] SMF

Environments

Operating Temperature	0 ~ 50 [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

Dimensions