



Datasheet

Camera Link compatible over Fiber Range Extender

Camera LinkのカメラをFiber延長してCLHS(X)のフレームグラバに接続できるようにする変換器です。

KAYA Vision is a global leader in commercial, industrial and rugged cameras and imaging system solutions, providing high-performance products for over 15 years. Founded in 2010 by industry experts, KAYA designs, manufactures and supports both COTS and custom products for high-performance imaging needs.

KAYA Instruments **Camera Link over Fiber Range Extender** resolves distance limitation of Camera Link interface by connecting camera to frame grabber over single fiber cable. This solution provides a high-resolution stream interface for distances up to 80 km in single-mode and up to 300 m in multi-mode. The range extender is capable of supplying power to camera over data cable.

The system is constructed of two converters, one on the camera side and one on the Frame Grabber side. The system uses flexible SFP+ modules for optical connection that can be easily changed. The range extender is able to provide a bidirectional communication at up to 10.3125 Gbps equal to Camera Link Full/80 bit (Deca) over single fiber cable with standard fiber frame grabbers.

Key Features

- Solves distance limitation of Camera Link
- Camera LinkFull/80 (Deca) support
- Bidirectional communication over single fiber cable
- Flexible machine I/O:
 - RS232
 - RS422
 - Opto-isolated
 - TTL GPIOs
- Standard MDR26 connectors
- Single Fiber optic cable
- Extension using Multi-Mode fiber up to 300 m
- Extension using Single-Mode fiber up to 80 km
- Power over Data support
- Flexible SFP+ module for optic fiber connection
- Easy configuration
- External power supply (optional)
- -40 °C to +70 °C operation environment temperature

Applications

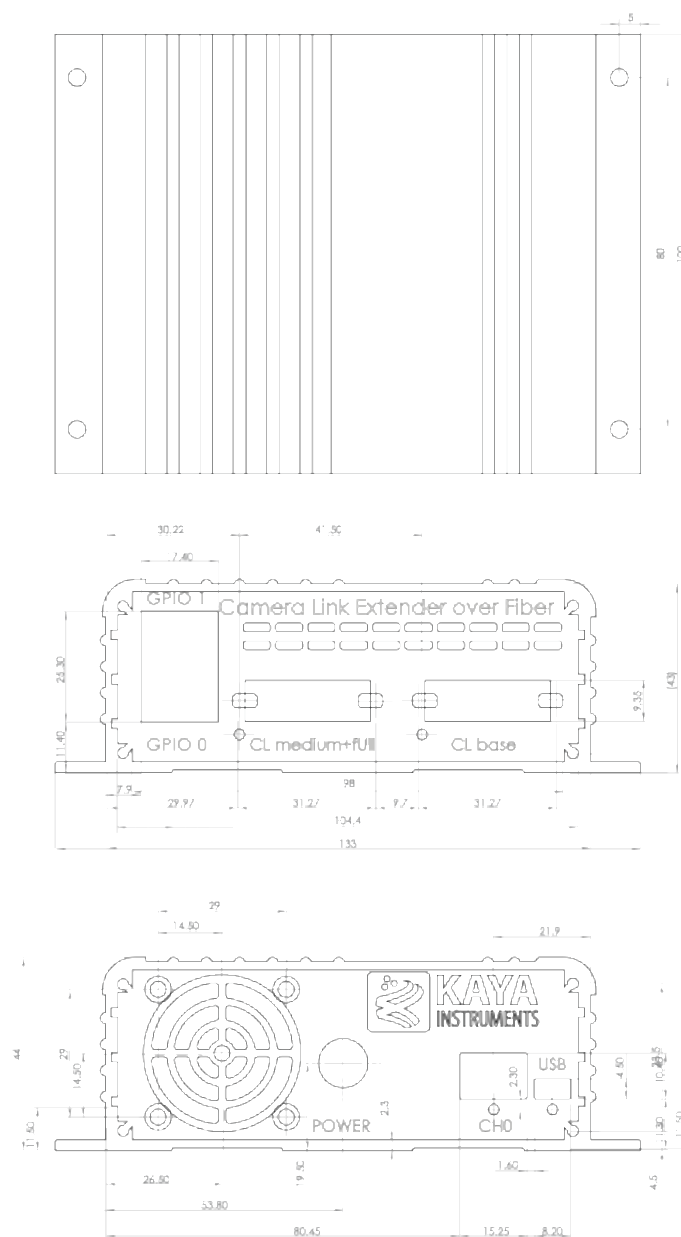
- High speed cameras
- High definition cameras
- Panoramic cameras
- Defense remote systems
- Surveillance
- Robotic Vision

TECHNICAL DATA

General	
Interface standard(s)	Camera Link compatible v2.0
Connectors	2x Camera Link v2.0 connectors 1x SFP+ connector for Camera Link over Fiber 2x RJ45 GPIO connectors 1x mini-USB system status port 1x Power 12 V DC input connector
Status LEDs	2x Camera Link connection status per connector 1x Fiber connection status per connector 1 System status LED
Number of links	1
Line-scan cameras supported	Yes
Supported connection speeds	10.3125 Gbit/s
Cooling method	Air cooling, passive heatsink
Dimensions	133 mm x 100 mm x 44 mm (5.2" x 3.9" x 1.7")
Weight	346 g (12 oz)
Power Input	12 V DC
Power Consumption	10.8 W (Self consumption not including cameras)
Environmental conditions	
Operating ambient air temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Operating ambient air humidity	10% to 90% RH non-condensing
Storage ambient air temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Storage ambient air humidity	10% to 90% RH non-condensing
Certifications	
Electromagnetic - EMC standards	<ul style="list-style-type: none"> The European EMC Directive 2014/30/EU The United States FCC rule 47 CFR 15
EMC - emission	<ul style="list-style-type: none"> EN 55032:2015 Class B FCC 47 Part 15 Class B
EMC - immunity	<ul style="list-style-type: none"> EN 55035:2017 Class B EN 61000-4-3 EN 61000-4-4 EN 61000-4-6
Flammability	PCB compliant with UL 94 V-0
RoHS	Compliant with the European Union Directive 2011/65/EU (ROHS2)
REACH	Compliant with the European Union Regulation No 1907/2006
WEEE	Must be disposed of separately from normal household waste and must be recycled according to local regulations
Ordering Information	
Camera Link compatible over Fiber Range Extender – Host and Device units	KY-EXT-CL
Camera Link compatible over Fiber Range Extender – Device unit	KY-CL2F-D
Camera Link compatible over Fiber Range Extender – Host unit	KY-CL2F-H
SFP+ single-mode module, 10 km	KY-SFP-10GLR-31
SFP+ multi-mode module, 300 m	KY-SFP-10GSR-85
SFP+ bidirectional module	KY-SFP-BD-10G-10

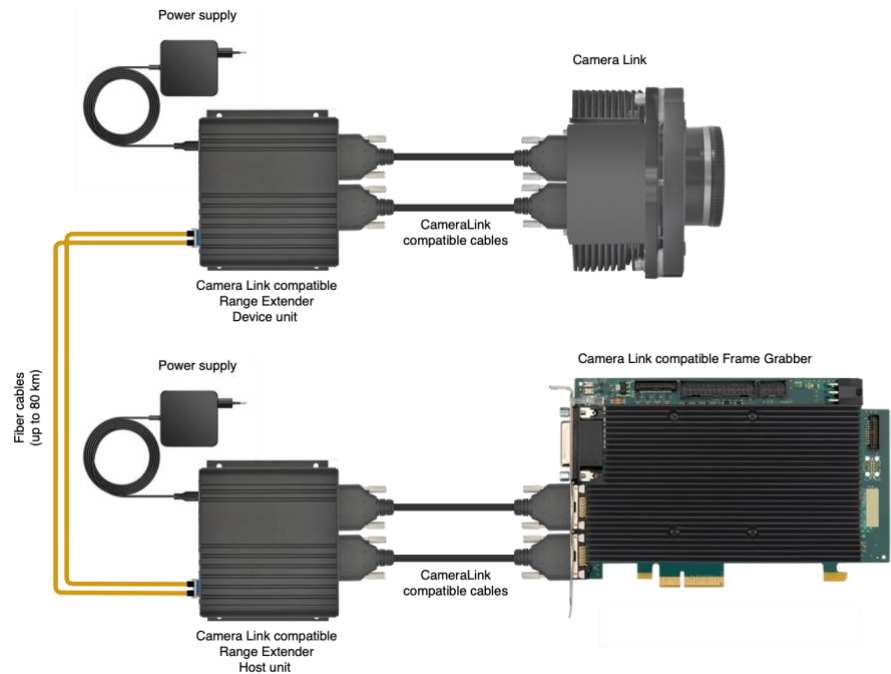
Single Mode Patch cable Duplex with LC termination	KY-FCA-D-SM-LC-200.0
Multi Mode Patch cable Duplex with LC termination	KY-FCA-D-MM-LC-35.0
Power supply 12V, 60W	KY_PWR12_60

MECHANICAL DRAWINGS



Dimensions are in millimeters.

SYSTEM STRUCTURE



COMPATIBILITY

KAYA Vision develops and maintains compatibility and interfaces for the most common and advanced vision image processing libraries and applications. We ensure seamless integration with major platforms to provide users with a flexible and convenient development environment, minimize integration effort, and accelerate time to deployment.

Supported vision standards:



Supported vision libraries:



Supported operating systems:



Please check our website for an up-to-date list of other supported libraries and software package.

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Have questions about pricing, availability, documentation, or custom options?
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