



Camera Link to Camera Link High Speed compatible Signal Converter

Innovative Approach

KAYA Instruments' **CL to CLHS compatible Signal Converter** allows convert 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. The Signal Converter is capable of supplying power (PoCL) to camera over data cable.

Intelligent Design

The system uses flexible SFP+ modules for optical connection that can be easily changed. The Signal converter 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

- Camera Link Base, Medium, Full or 80-bit (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

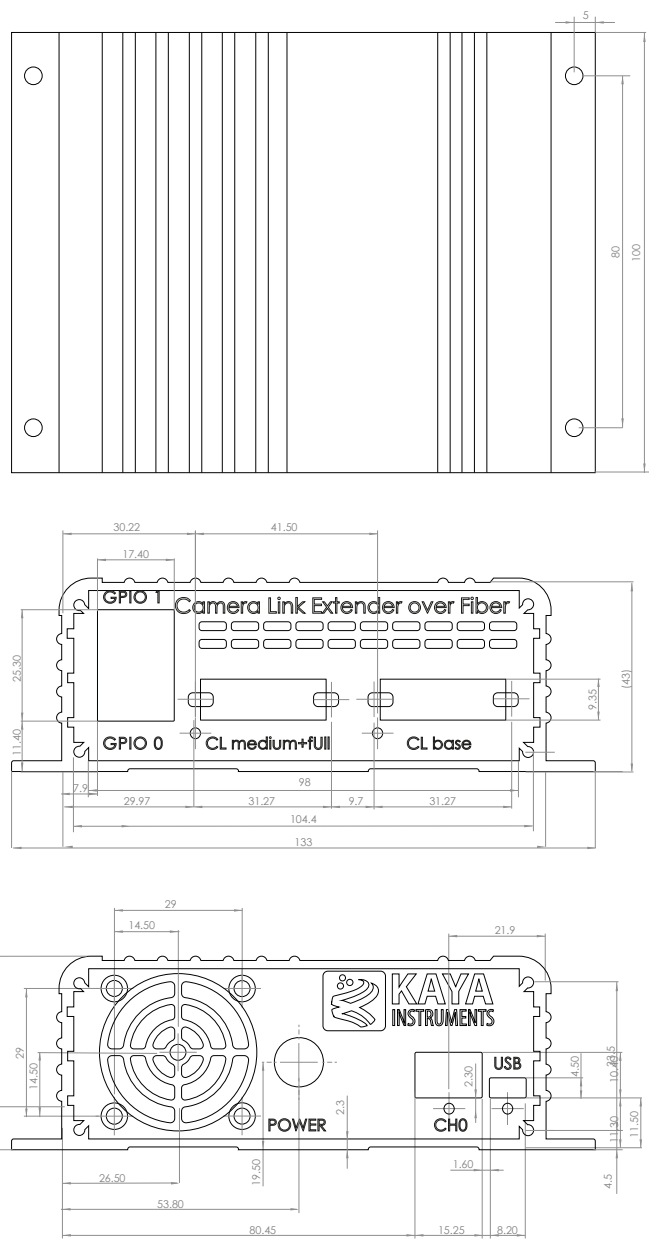
Applications

- 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	• The European Council EMC Directive 2004/108/EC • The United States FCC rule 47 CFR 15
EMC - emission	• EN 55022:2010 Class B • FCC 47 Part 15 Class B
EMC - immunity	• EN 55024:2010 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 to CLHS compatible Signal Converter	KY-CL2F-D
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

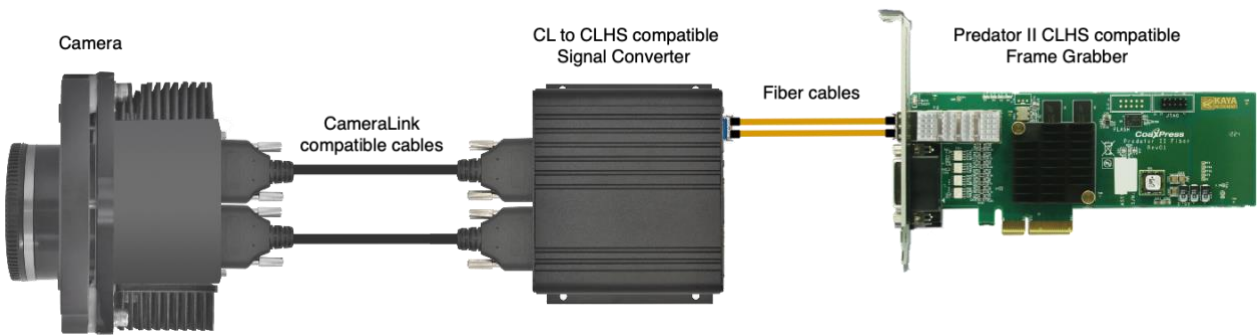
MECHANICAL DRAWINGS



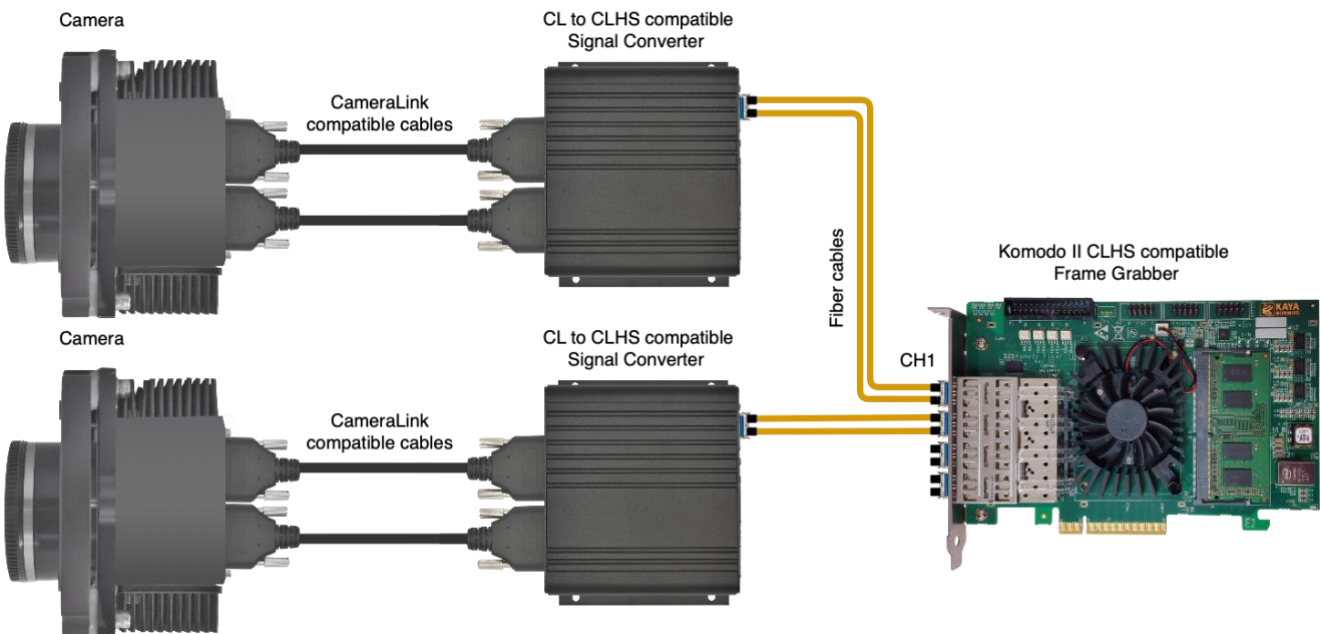
Dimensions are in millimeters.

SYSTEM STRUCTURE

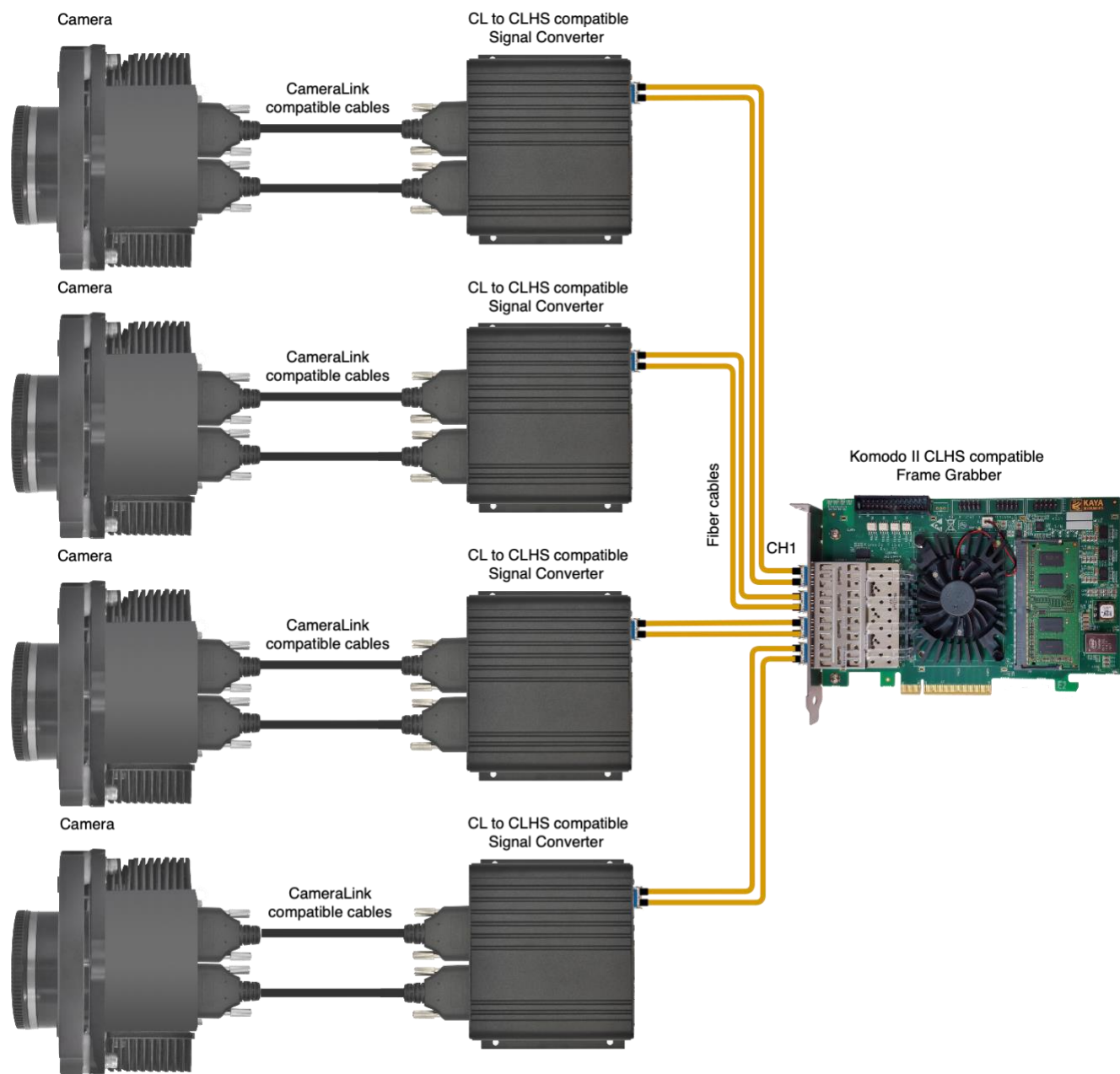
Single camera topology:



Dual camera topology:



Quad camera topology:



COMPATIBILITY

KAYA Instruments creates and maintains compatibility and interfaces for the most common and advanced vision image processing libraries and applications. Major support is available for **MVTec Halcon**, **National Instruments' LabVIEW** and **MathWorks' MATLAB**.

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

International Distributor



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Please feel free to contact our sales team for pricing, availability, documentation or customization at our e-mails – we will be happy to provide assistance and consultation.

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