

Prosilica GX

1050



- 240 MBps with dual port LAG technology
- 3-axis motorized lens control
- High frame rate at full bit depth
- ON Semi KAI-01050 sensor

Description

ON Semi KAI-01050 industrial camera, Global shutter, 112 fps

Prosilica GX1050 is a high resolution CCD camera with dual GigE Vision® output. It features the ON Semiconductor KAI-01050 CCD sensor with global shutter. At full resolution, this camera has a frame rate of 112 frames per second (dual GigE mode). With a smaller region of interest higher frame rates are possible. Prosilica GX1050 is offered as monochrome and color models. This camera has two screw-captivated Gigabit Ethernet ports configured as a Link Aggregation Group (LAG) to provide a sustained maximum data rate of 240 MBps. It can also work at half the bandwidth (120 MBps) using a single cable. By default monochrome models ship with no optical filter and color models ship with an IRC30 IR cut filter.

Benefits and features:

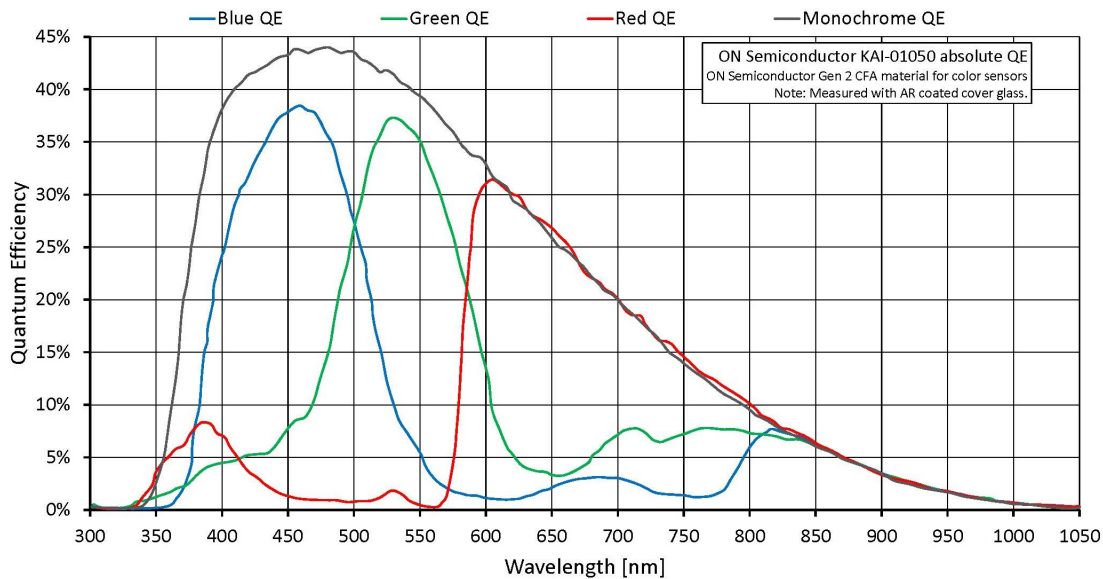
- Monochrome (GX1050) and color (GX1050C) models
- Dual GigE ports can be configured as a Link Aggregation Group (LAG), single GigE and dual GigE modes
- Screw mount RJ45 Ethernet connectors for industrial environments
- Supports cable lengths up to 100 meters (CAT-5e or CAT-6)
- ON Semiconductor KAI-01050 (Gen2) Type 1/2 CCD sensor
- Support for popular third party image-processing libraries

Specifications

Prosilica GX	1050
Interface	IEEE 802.3 1000baseT
Resolution	1024 (H) × 1024 (V)
Sensor	ON Semi KAI-01050
Sensor type	CCD Progressive



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Sensor size	Type 1/2
Pixel size	5.5 μm \times 5.5 μm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	112 fps
ADC	14 bit
Image buffer (RAM)	128 MByte
Output	
Bit depth	14 (monochrome); 12 (color) bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed, Mono14
YUV color pixel formats	YUV411Packed, YUV422Packed, YUV444Packed
RGB color pixel formats	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed, RGB12Packed
Raw pixel formats	BayerGR8, BayerGR12, BayerGR12Packed
General purpose inputs/outputs (GPIOs)	
Opto-isolated I/Os	2 inputs, 4 outputs
RS232	1
Operating conditions/dimensions	
Operating temperature	0 $^{\circ}\text{C}$ to +50 $^{\circ}\text{C}$ ambient (without condensation)
Power requirements (DC)	10 to 24 VDC
Power consumption	5.4 W at 12 VDC (Single GigE Mode); 6.7 W at 12 VDC (Dual GigE Mode)
Mass	269 g
Body dimensions (L \times W \times H in mm)	107.2 \times 53.3 \times 33 (including connectors)
Regulations	CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class A; CAN ICES-003



Features

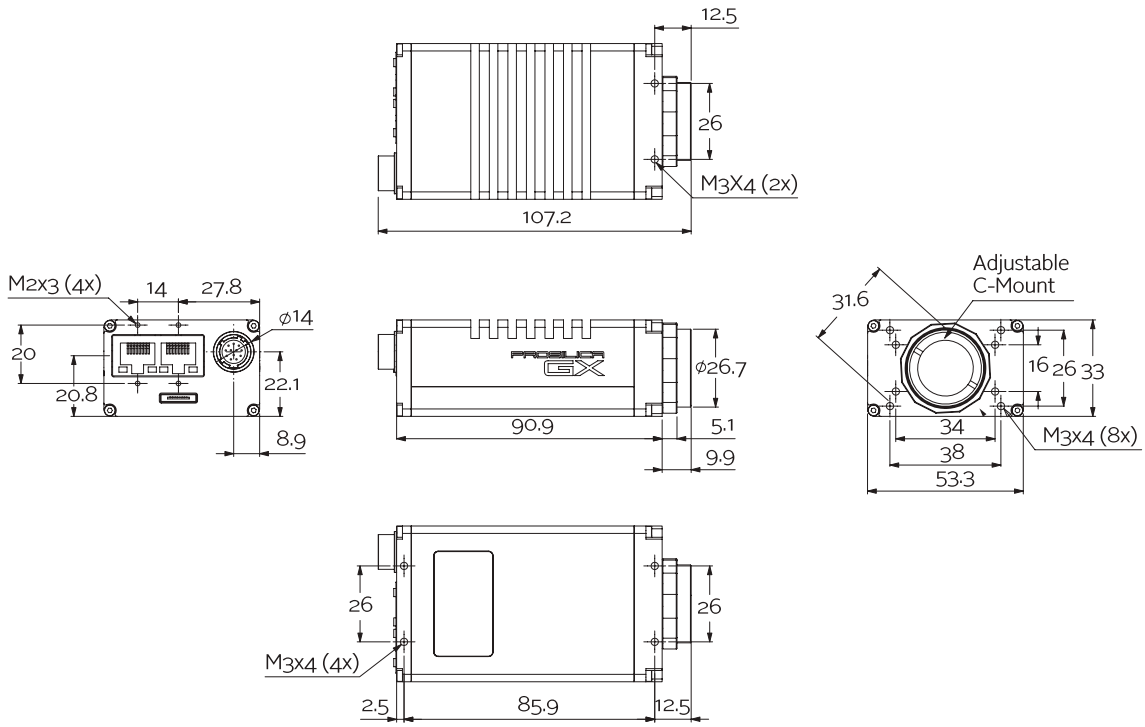
Image optimization features:

- Auto gain (manual gain control: 0 to 34 dB)
- Auto exposure (manual exposure controls: 10 μ s to 26.8 s)
- Auto white balance (GX1050C only)
- Binning (Sum)
- Region of interest (ROI), separate ROI for auto features

Camera control features:

- 3-axis motorized lens control
- Auto-Iris (video type)
- Event channel
- Global shutter (digital shutter)
- Image chunk data
- Recorder and Multiframe acquisition modes
- RS232
- Storable user sets
- StreamBytesPerSecond (bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO

Technical drawing





Applications

Prosilica GX1050 is ideal for a wide range of applications including:

- Industrial inspection
- Machine vision
- Medical imaging
- Public security
- Surveillance
- Traffic imaging
- OEM applications