

# Prosilica GE

## 1050



- 59 fps @ full resolution
- ON Semi KAI-01050 sensor
- Galvanically isolated I/O
- Various lens mount options

## Description

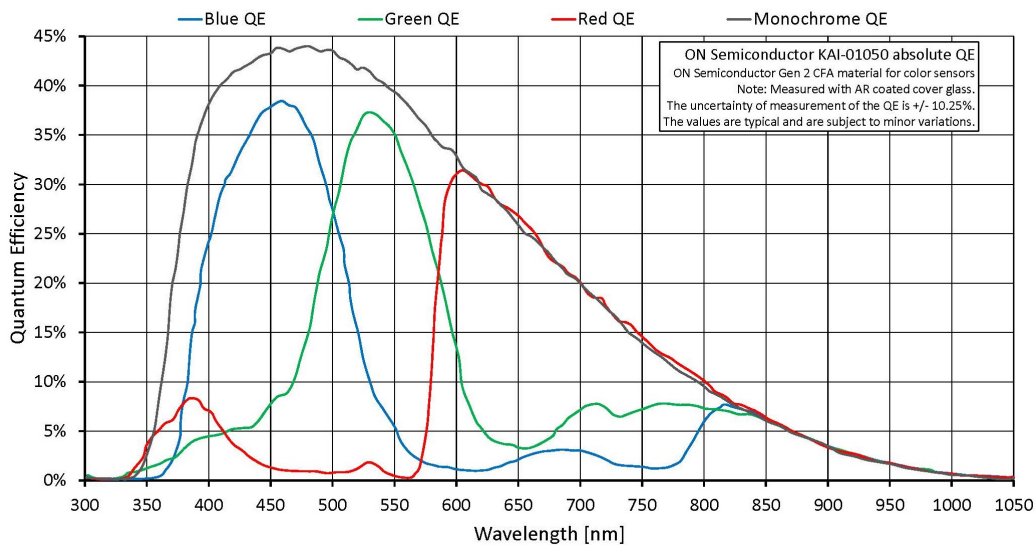
Fast 1.0 Megapixel ON Semi KAI-01050 CCD camera, 59 frames per second

Prosilica GE1050 is a fast CCD camera with Gigabit Ethernet interface (GigE Vision®). It incorporates the ON Semiconductor KAI-01050 CCD sensor that runs just under 59 frames per second at full resolution and even faster with region of interest readout. By default monochrome models ship with no optical filter and color models ship with an IRC30 IR cut filter.

## Specifications

Prosilica GE	1050
Interface	IEEE 802.3 1000baseT
Resolution	1024 (H) × 1024 (V)
Sensor	ON Semi KAI-01050
Sensor type	CCD Progressive
Sensor size	Type 1/2
Pixel size	5.5 μm × 5.5 μm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	59 fps
ADC	12 bit
Image buffer (RAM)	32 MByte
<b>Output</b>	
Bit depth	8/12 bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed
YUV color pixel formats	YUV411Packed

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RGB color pixel formats	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed, RGB12Packed
Raw pixel formats	BayerGR8, BayerGR12, BayerGR12Packed
<b>General purpose inputs/outputs (GPIOs)</b>	
TTL I/Os	1 input, 3 outputs (with galvanic isolation)
RS232	1
<b>Operating conditions/dimensions</b>	
Operating temperature	0 °C to +50 °C ambient (without condensation)
Power requirements (DC)	5 to 24 VDC
Power consumption	5 W at 12 VDC
Mass	178 g
Body dimensions (L × W × H in mm)	80 × 51 × 39 (including connectors)
Regulations	CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class A



## Features

Prosilica GE1050 features include:

- Region of interest (ROI), DSP subregion (selectable ROI for auto features)
- Binning (Sum)
- Auto gain (manual gain control: 0 to 34 dB)
- Auto exposure (manual exposure controls: 10 µs to 53.7 s)



- Auto white balance
- StreamBytesPerSecond (bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Global shutter (digital shutter)
- Recorder and Multiframe acquisition modes
- Event channel
- Image chunk data
- Storable user sets

## Technical drawing



\* Nominal value Add 0.3mm for color cameras.



## Applications

Prosilica GE1050 is ideal for a wide range of applications including:

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