

# Prosilica GE 2040



- 15 fps @ full resolution
- ON Semi KAI-04022 sensor
- Galvanically isolated I/O
- Various lens mount options

For speed and good sensitivity

Compact, high performance CCD machine vision cameras with GigE Vision

Prosilica GE 2040 with ON Semi KAI-04022 runs 15.0 frames per second at 4.2 MP resolution.

Prosilica GE cameras are very compact, high-performance machine vision cameras with Gigabit Ethernet interface (GigE Vision®).

The GigE interface allows for very fast frame rates and long cable lengths.

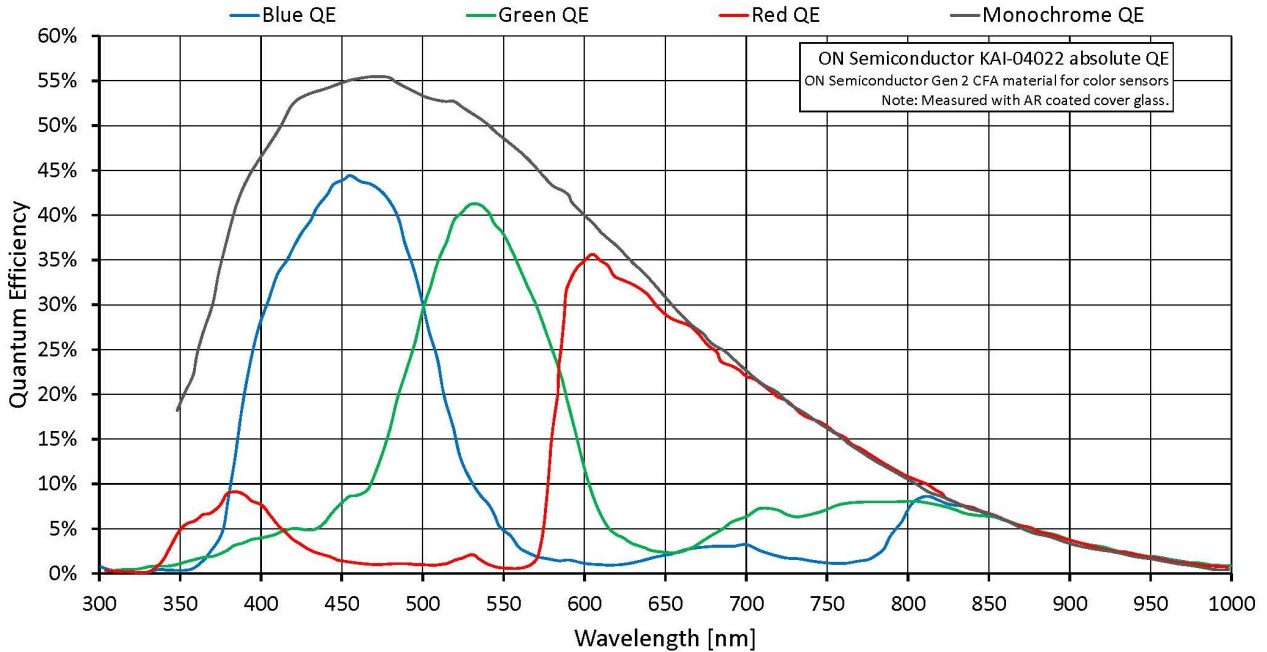
- Compact size
- VGA to 16 Megapixel resolution
- Fast frame rates to 205 fps
- OnSemi KAI CCD sensors
- Modular options available

## Specifications

Prosilica GE 2040	
Interface	IEEE 802.3 1000baseT
Resolution	2040 (H) × 2048 (V)
Sensor	ON Semi KAI-04022
Sensor type	CCD Progressive
Sensor size	Type 1.2

<b>Prosilica GE 2040</b>	
Pixel size	7.4 $\mu\text{m}$ $\times$ 7.4 $\mu\text{m}$
Lens mount (default)	C-Mount
Max. frame rate at full resolution	15 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
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 $^{\circ}\text{C}$ to +50 $^{\circ}\text{C}$ ambient (without condensation)
Power requirements (DC)	5 to 24 VDC
Power consumption	5.5 W at 12 VDC
Mass	169 g
Body dimensions (L $\times$ W $\times$ H in mm)	80 $\times$ 51 $\times$ 39 (including connectors)
Regulations	2011/65/EU, including amendment 2015/863/EU (RoHS)

## Quantum efficiency



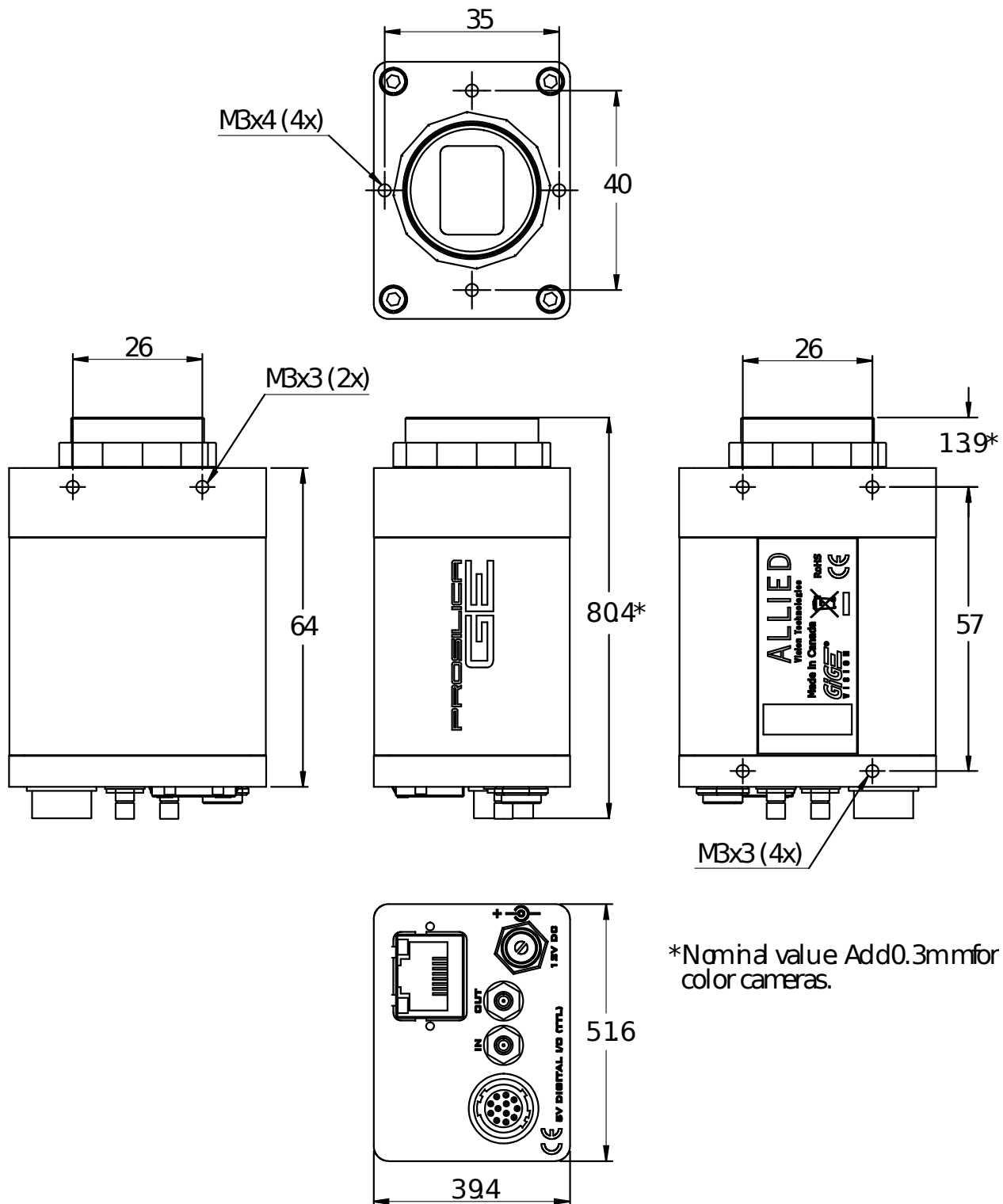
## Features

Prosilica GE2040 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: 75  $\mu$ s 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
- Chunk data

- Storable user sets

## Technical drawing



\*Nominal value Add 0.3mm for color cameras.



## Applications

Prosilica GE2040 is ideal for a wide range of applications including:

- High-resolution industrial inspection
- General machine vision
- 3D metrology
- LCD panel inspection
- Military surveillance
- Public security
- Traffic imaging (Intelligent Traffic Systems)
- Embedded systems
- OEM applications