

# Prosilica GE

## 680



- High frame rate
- ON Semi KAI-0340 sensor
- Galvanically isolated I/O
- Various lens mount options

## Description

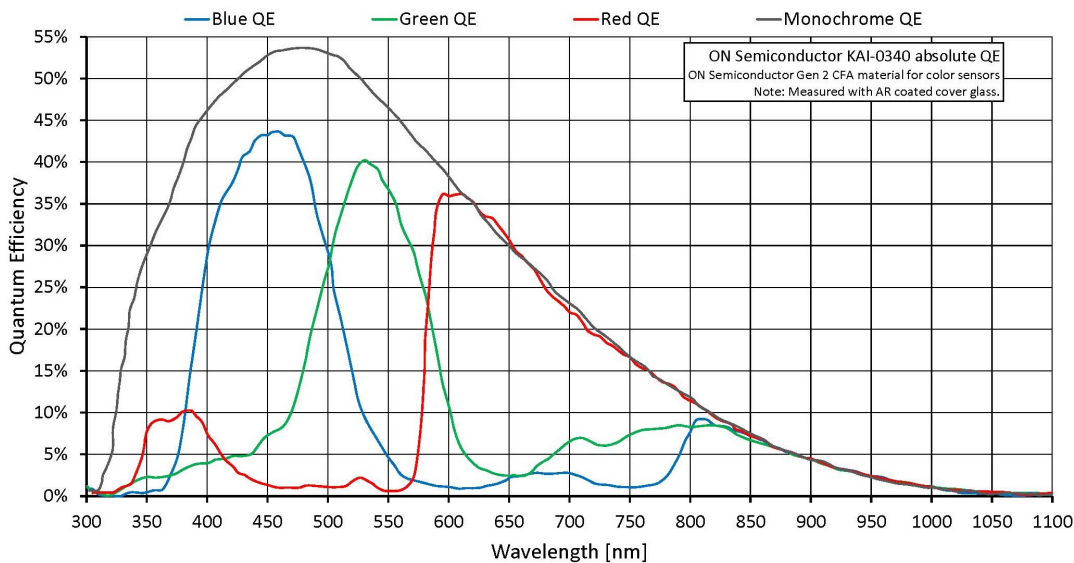
### Fast CCD camera with Gigabit Ethernet interface, 205 frames per second

Prosilica GE680 is a very fast, VGA resolution (0.3 Megapixel), high-performance machine vision camera with a Gigabit Ethernet interface (GigE Vision®). The ON Semiconductor CCD sensor is suitable for applications where speed and good sensitivity are required. At full resolution, this camera has a frame rate of 205 frames per second. With a smaller region of interest higher frame rates are possible. By default monochrome models ship with no optical filter and color models ship with an IRC30 IR cut filter.

## Specifications

<b>Prosilica GE</b>	<b>680</b>
Interface	IEEE 802.3 1000baseT
Resolution	640 (H) × 480 (V)
Sensor	ON Semi KAI-0340
Sensor type	CCD Progressive
Sensor size	Type 1/3
Pixel size	7.4 μm × 7.4 μm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	205 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	4.5 W at 12 VDC
Mass	169 g
Body dimensions (L × W × H in mm)	80 × 51 × 39 (including connectors)
Regulations	2011/65/EU, including amendment 2015/863/EU (RoHS)



## Features

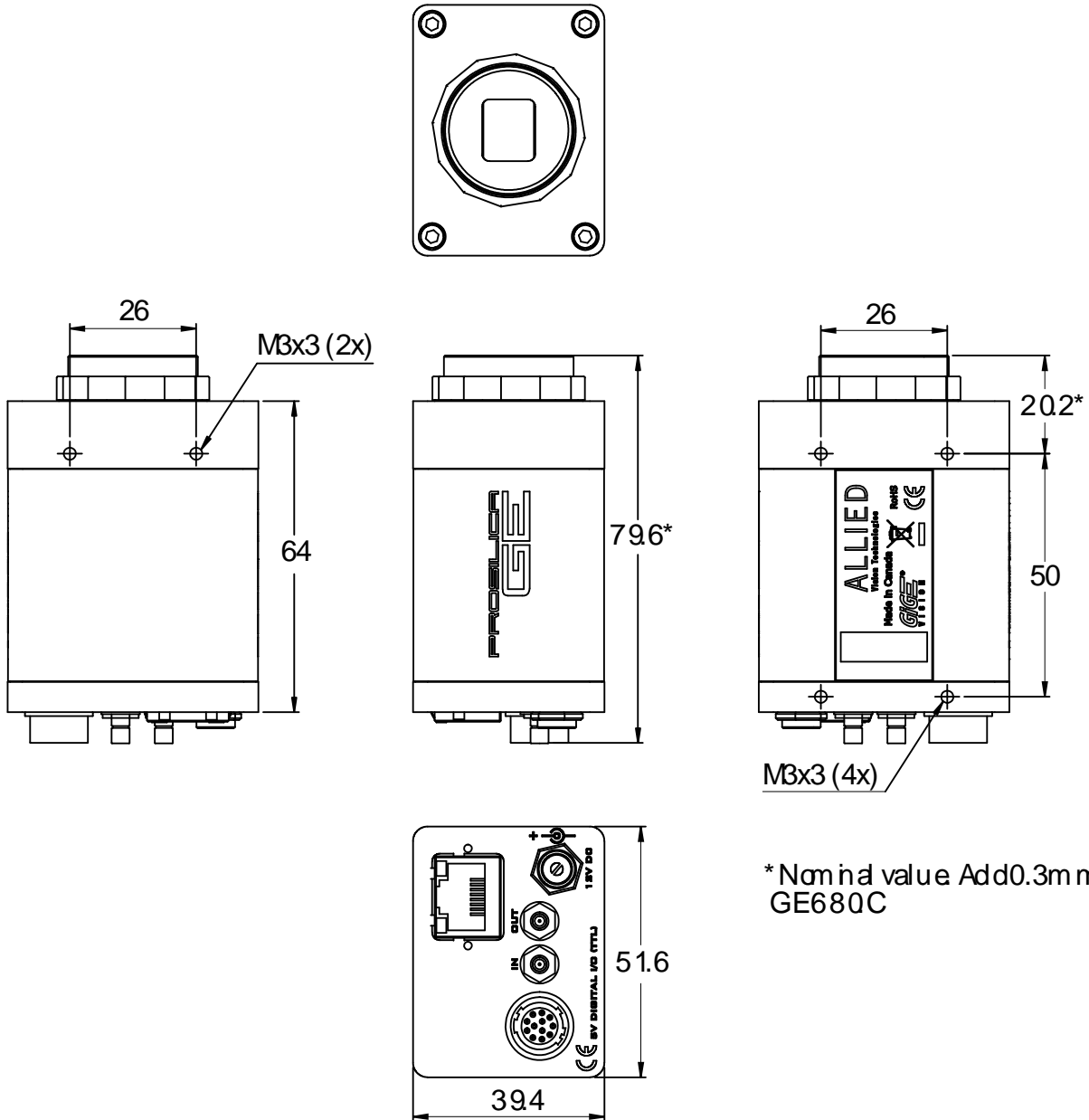
Prosilica GE680 incorporates an advanced set of camera features including:

- 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: 25  $\mu$ 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
- Image chunk data
- Storable user sets

## Technical drawing



\* Nominal value Add 0.3mm for GE680C



## Applications

Prosilica GE680 is ideal for a wide range of applications including:

- High-speed inspection
- Machine vision
- Optical character recognition
- Traffic imaging
- Robotics
- OEM applications