

# 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/GE680C is a very fast, VGA resolution, 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. By default monochrome models ship with no optical filter and color models ship with an IRC30 IR cut filter.

### Options:

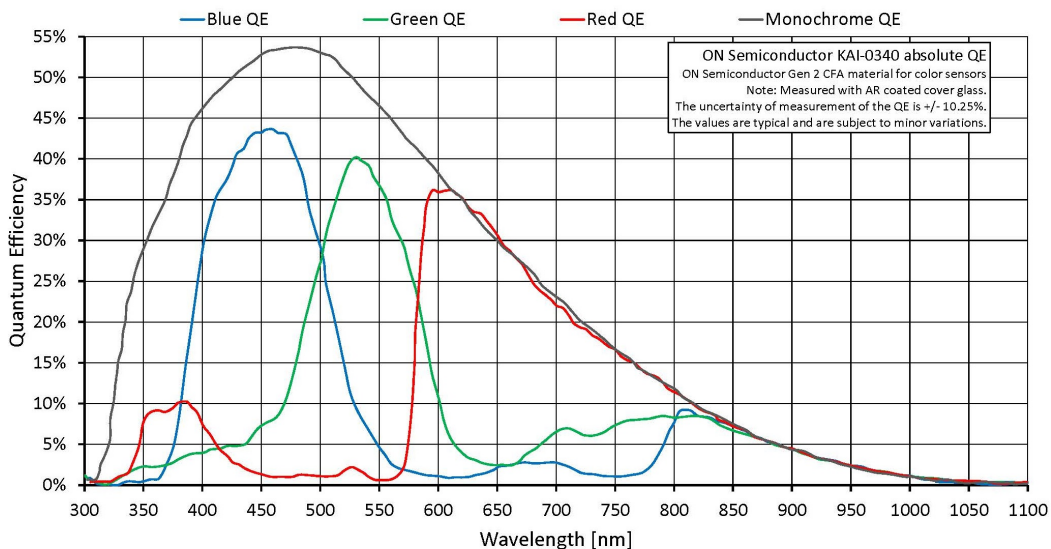
- Optical filters
- Taped cover glass with or without microlenses, quartz glass without microlenses
- Various lens mounts

See the Modular Concept for lens mount, optical filter, and sensor options.

## Specifications

Prosilica GE	680
Interface	IEEE 802.3 1000baseT
Resolution	640 (H) × 480 (V)
Sensor	ON Semi KAI-0340
Sensor type	CCD Progressive
Cell size	7.4 μm x 7.4 μm
Lens mount	C-Mount
Max frame rate at full resolution	205 fps
ADC	12 bit
Image buffer (RAM)	32 MByte
<b>Output</b>	

<b>Prosilica GE</b>	<b>680</b>
Bit depth	8/12 bit
Mono modes	Mono8, Mono12, Mono12Packed
Color modes RGB	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed, RGB12Packed
Raw modes	BayerGR8, BayerGR12, BayerGR12Packed
<b>General purpose inputs/outputs (GPIOs)</b>	
TTL I/Os	1 input, 3 outputs (with galvanic isolation)
RS-232	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 (@12 V)	4.5 W
Mass	169 g
Body dimensions (L × W × H in mm)	80 × 51 × 39 (including connectors)
Regulations	CE, RoHS, REACH, WEEE, FCC, ICES



## Features

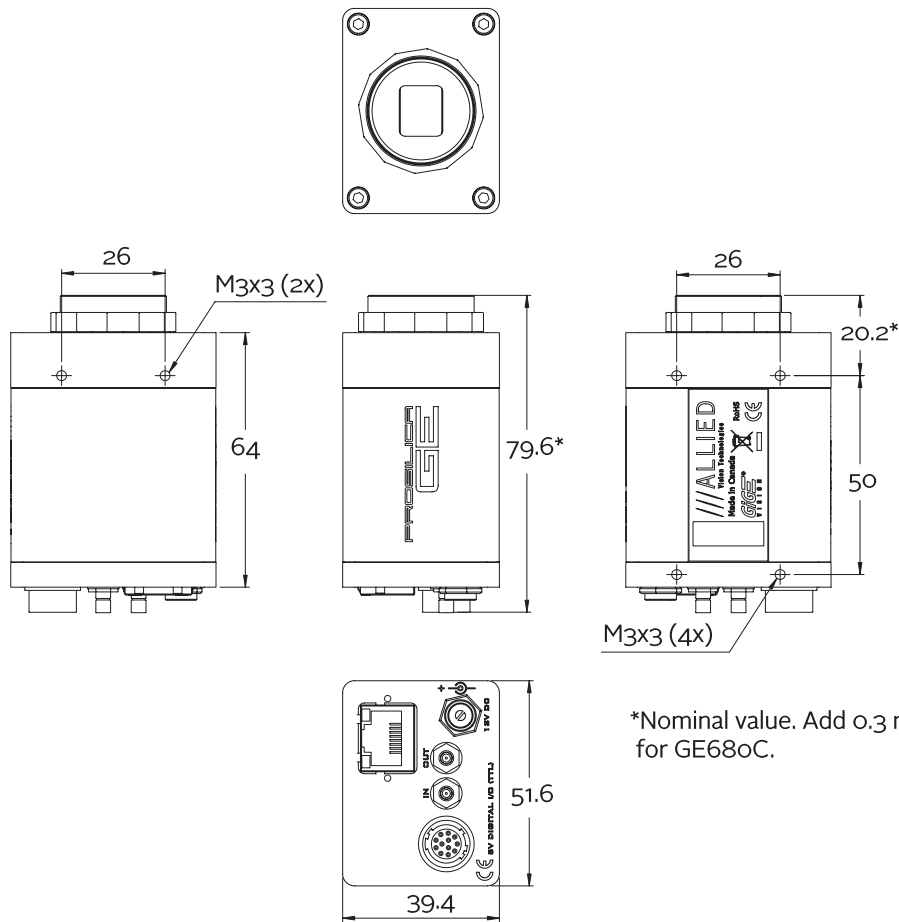
Prosilica GE680/GE680C incorporates an advanced set of camera features including:

- 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 #s to 53.7 s)
- Auto white balance
- StreamBytesPerSecond (easy 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





## Applications

**Prosilica GE680/GE680C is ideal for a wide range of applications including:**

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