

# Prosilica GE

## 680



- High frame rate
- OnSemi 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 CCD sensor is suitable for applications where speed and good sensitivity are required.

### Options:

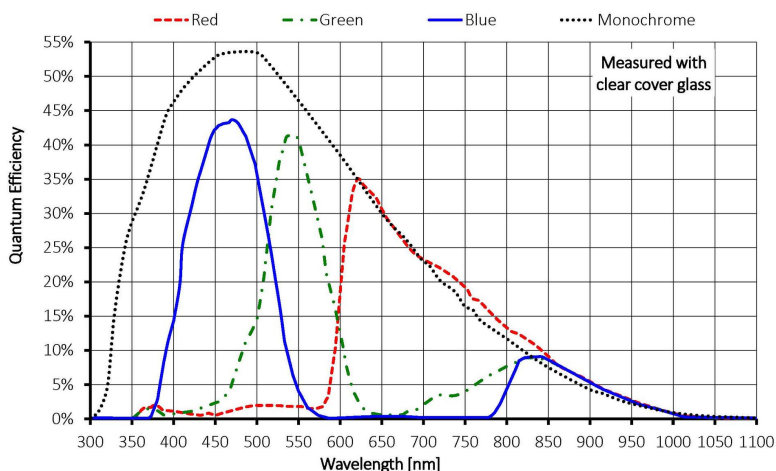
- Optical filters
- Taped cover glass with or without microlenses, quartz glass without microlenses
- Various lens mounts

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	OnSemi 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>	
Bit depth	8/12 bit

<b>Prosilica GE</b>	<b>680</b>
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

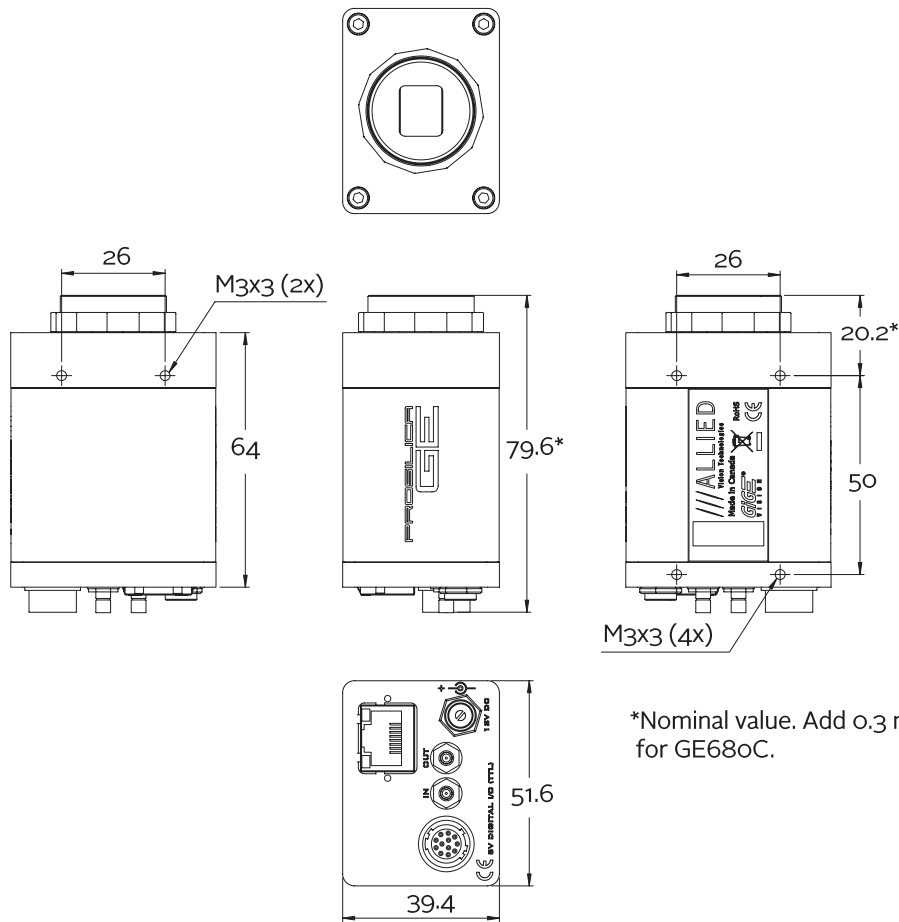
Prosilica#GE680/GE680C incorporates an advanced set of camera features including:

- Region of interest (ROI), DSP subregion (selectable ROI for auto features)
- Binning
- 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