

Prosilica GE

680



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

Description

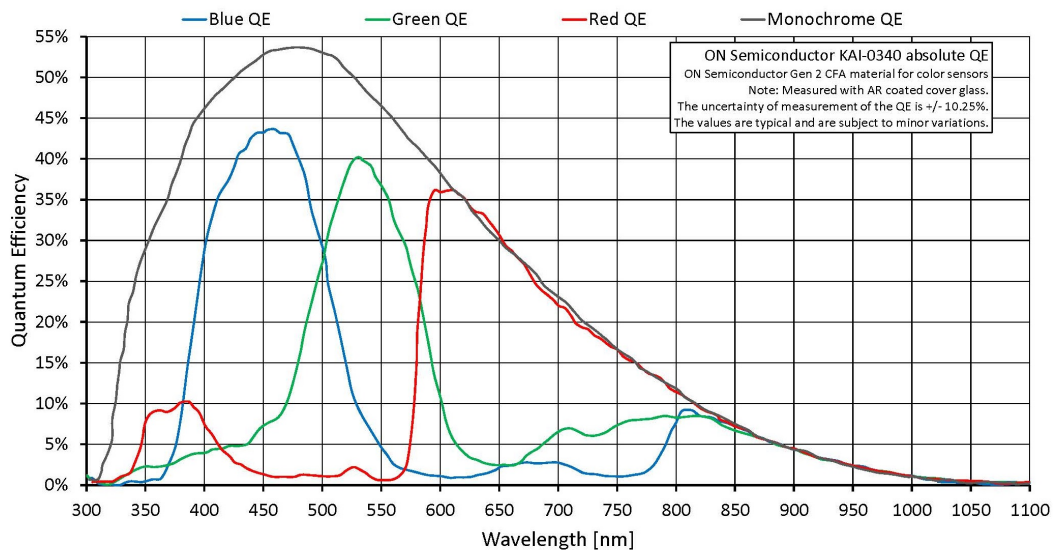
Fast CCD camera with Gigabit Ethernet interface, 205 frames per second

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

Prosilica GE	680
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
Output	
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
General purpose inputs/outputs (GPIOs)	
TTL I/Os	1 input, 3 outputs (with galvanic isolation)
RS232	1
Operating conditions/dimensions	
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	CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class A



Features

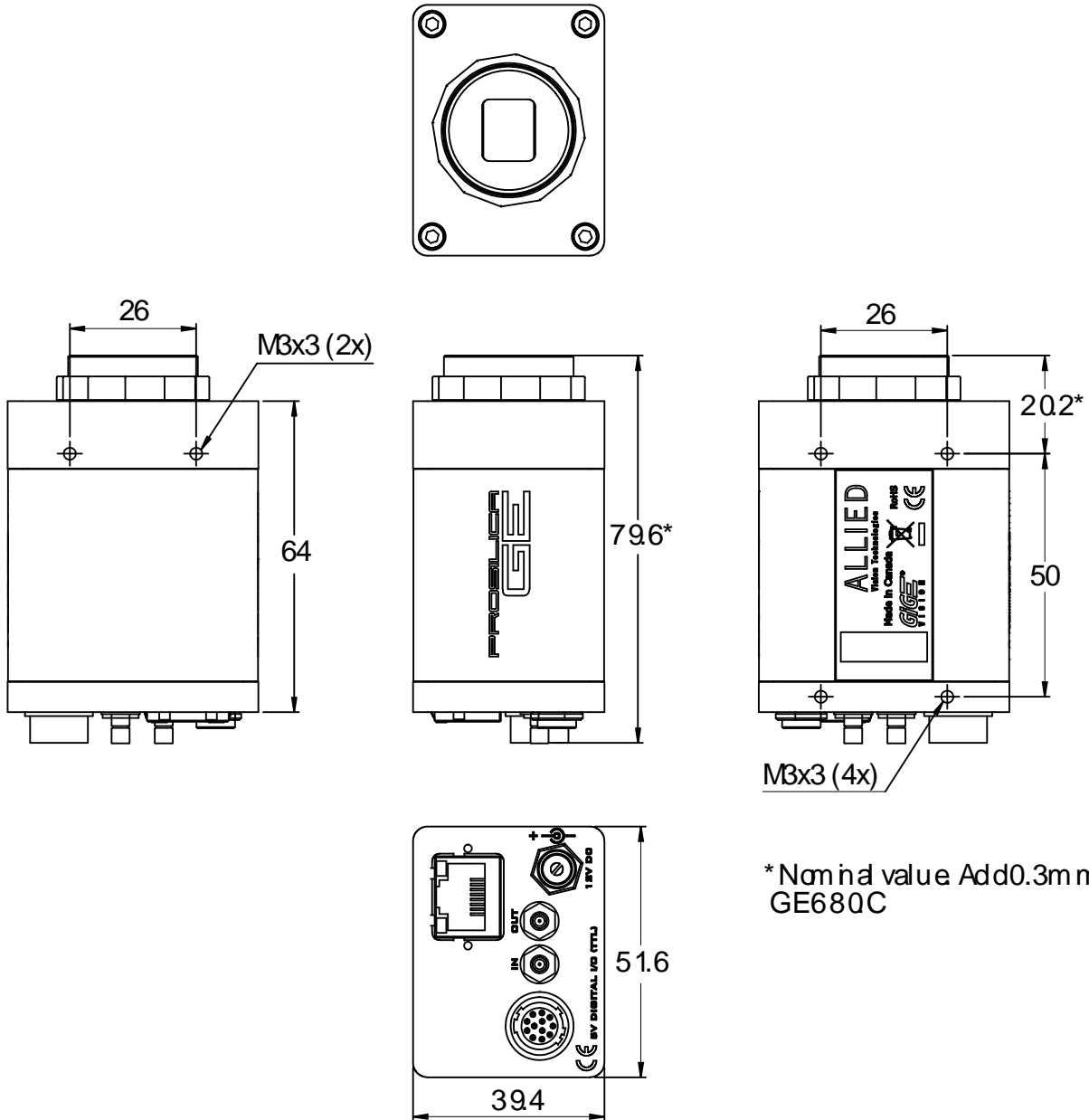
Prosilica GE680 incorporates an advanced set of camera features including:

- 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 μ 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