Allied Vision

GiGE VISION

Prosilica GE
680

- High frame rate
- ON Semi KAI-0340 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 680 with ON Semi KAI-0340 runs 205 frames per second at 0.3 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

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Specifications

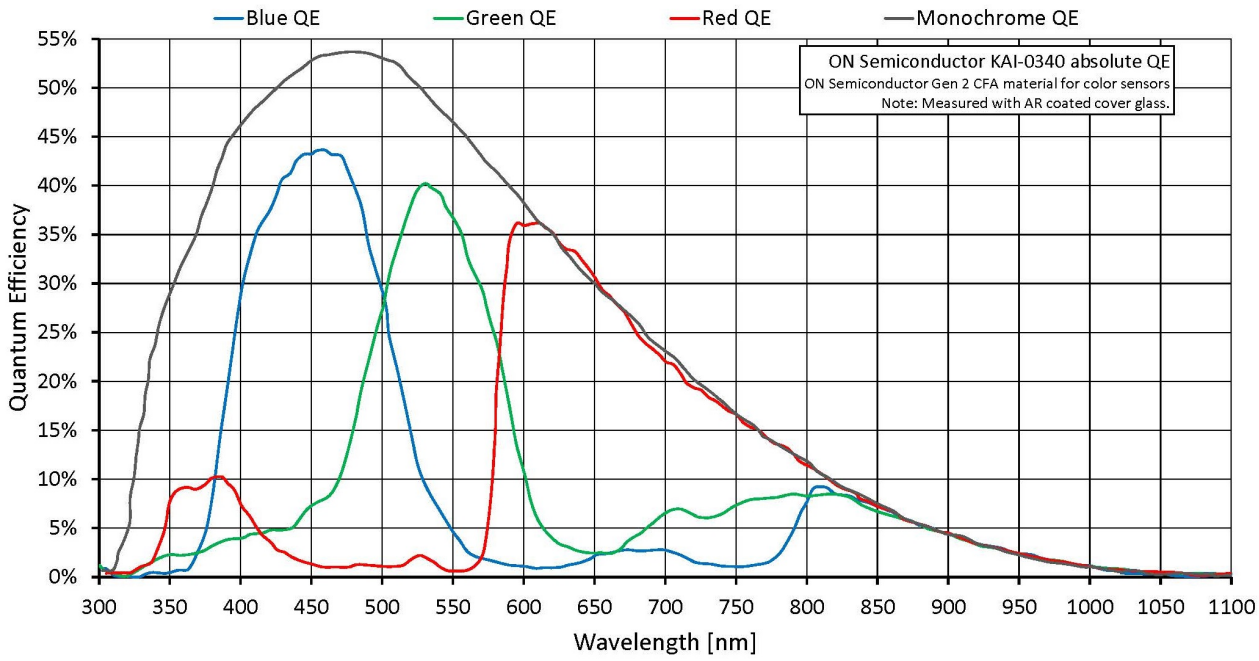
Interface	IEEE 802.3 1000BASE-T
Resolution	640 (H) × 480 (V)
Sensor	ON Semi KAI-0340
Sensor type	CCD Progressive
Sensor size	Type 1/3
Pixel size	7.4 µm × 7.4 µm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	205 fps
ADC	12 Bit
Image buffer (RAM)	32 MByte

Output	
Bit depth	8-bit or 12-bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed
YUV color pixel formats	YUV411Packed
RGB color pixel formats	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed, RGB12Packed
Raw color pixel formats (Bayer)	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)

Quantum efficiency

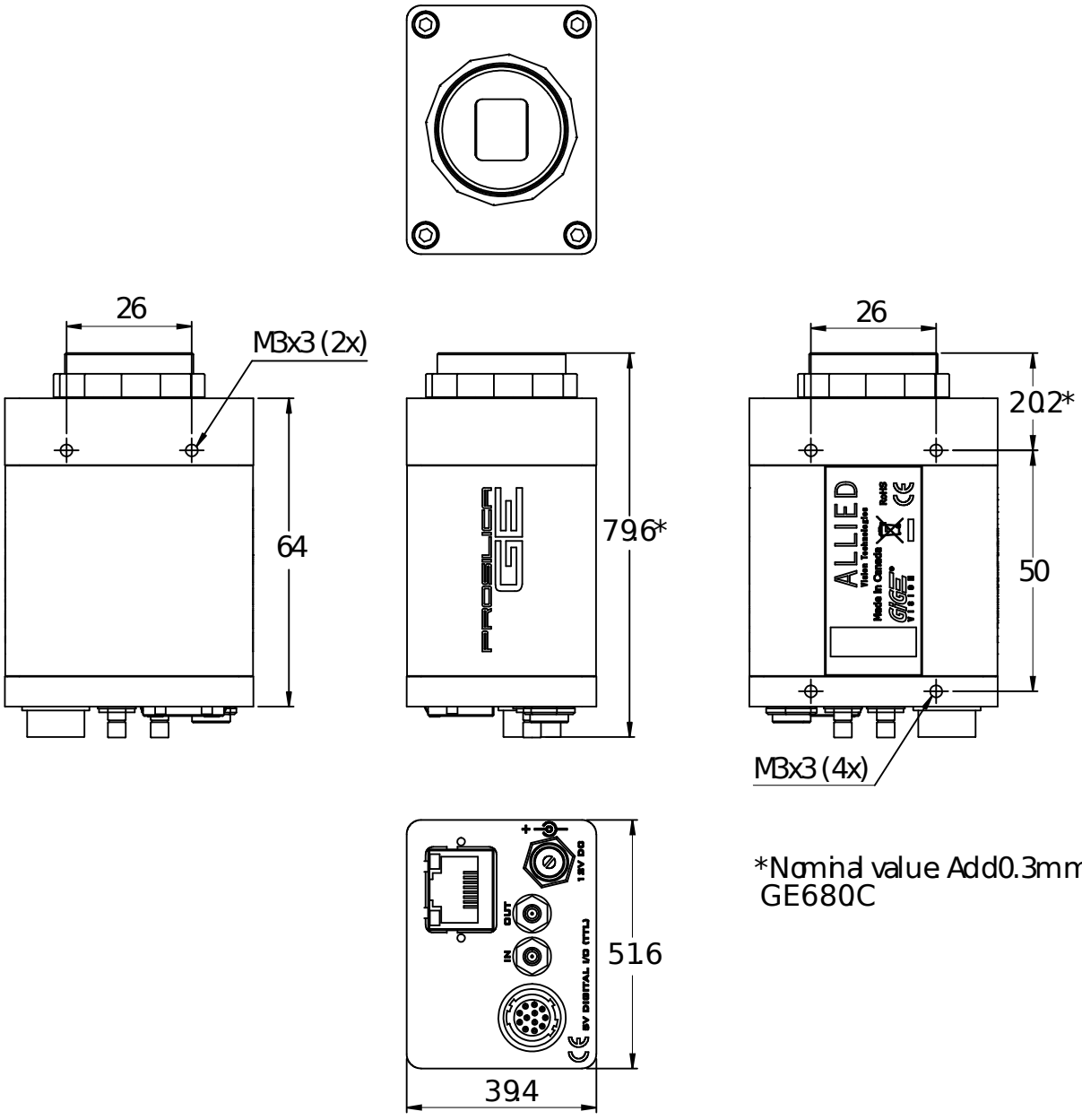


Features

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 µs 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 0.3 mm 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