

Prosilica GE

2040



- 15 fps @ full resolution
- ON Semi KAI-04022 sensor
- Galvanically isolated I/O
- Various lens mount options

Description

High-performance 4.2 Megapixel CCD camera, 15 frames per second

Prosilica GE2040/GE2040C is a very high-resolution CCD camera with Gigabit Ethernet output. This camera features the high-quality ON Semiconductor KAI-04022 CCD image sensor that provides superior image quality, excellent sensitivity, and low noise. By default monochrome models ship with no optical filter and color models ship with an IRC30 IR cut filter.

Options:

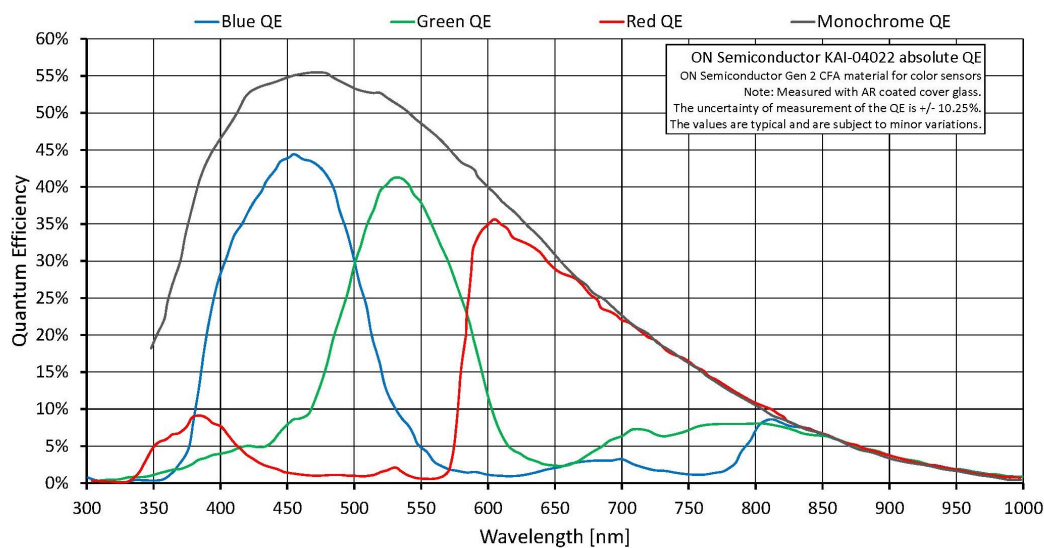
- Optical filters (IR cut filter/Protection glass)
- Taped cover glass with or without microlenses
- Various lens mounts

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

Specifications

Prosilica GE	2040
Interface	IEEE 802.3 1000baseT
Resolution	2040 (H) × 2048 (V)
Sensor	ON Semi KAI-04022
Sensor type	CCD Progressive
Cell size	7.4 μm x 7.4 μm
Lens mount	C-Mount
Max frame rate at full resolution	15 fps
ADC	12 bit
Image buffer (RAM)	32 MByte
Output	

Prosilica GE	2040
Bit depth	8/12 bit
Mono modes	Mono8, Mono12, Mono12Packed
Color modes RGB	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed, RGB12Packed
Raw modes	BayerGR8, BayerGR12, BayerGR12Packed
General purpose inputs/outputs (GPIOs)	
TTL I/Os	1 input, 3 outputs (with galvanic isolation)
RS-232	1
Operating conditions/dimensions	
Operating temperature	0 °C to +50 °C ambient (without condensation)
Power requirements (DC)	5 to 24 VDC
Power consumption (@12 V)	5.5 W
Mass	169 g
Body dimensions (L × W × H in mm)	80 × 51 × 39 (including connectors)
Regulations	CE, RoHS, REACH, WEEE, FCC, ICES



Features

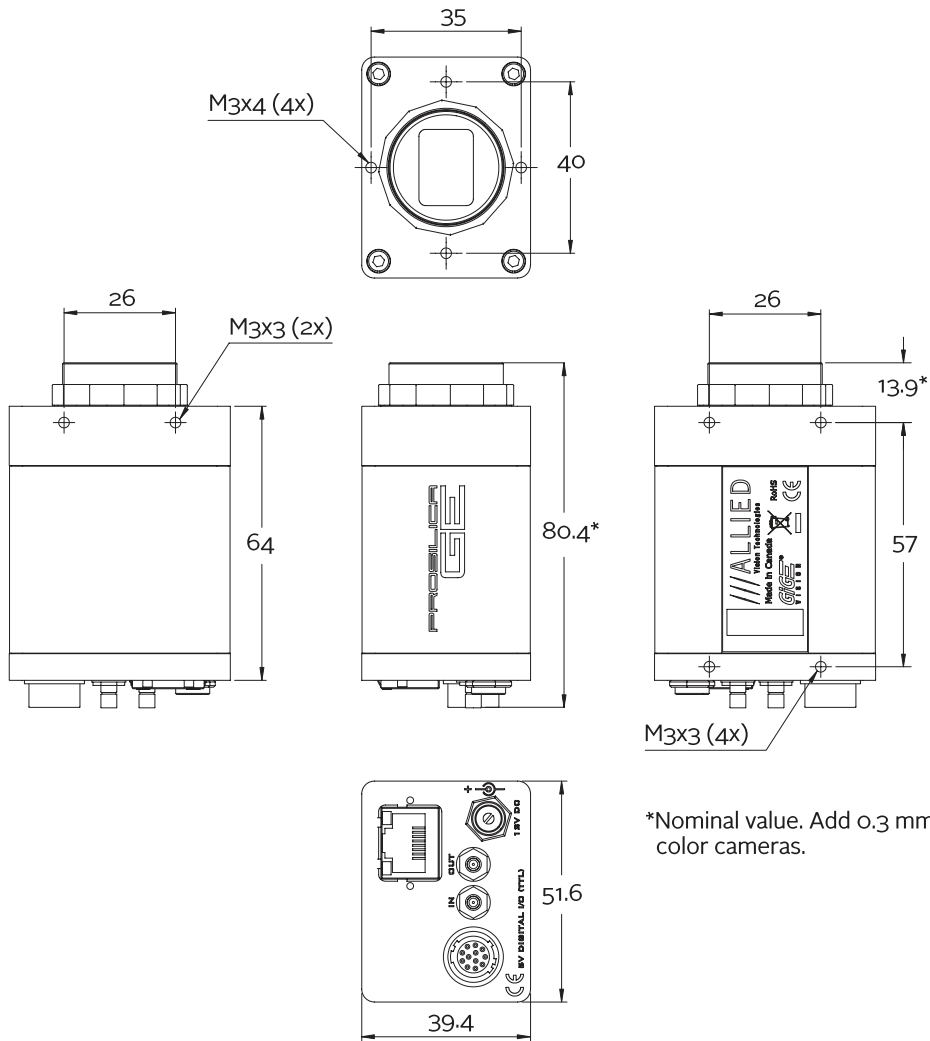
Prosilica GE2040/GE2040C features include:

- 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: 75 #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
- Chunk data
- Storable user sets

Technical drawing



*Nominal value. Add 0.3 mm for color cameras.



Applications

Prosilica GE2040/GE2040C is ideal for a wide range of applications including:

- High-resolution industrial inspection
- General machine vision
- 3D metrology
- LCD panel inspection
- Military surveillance
- Public security
- Traffic imaging (Intelligent Traffic Systems)
- Embedded systems
- OEM applications