



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

ON Semi KAI-04022 4.2 Megapixel CCD camera, 15 frames per second

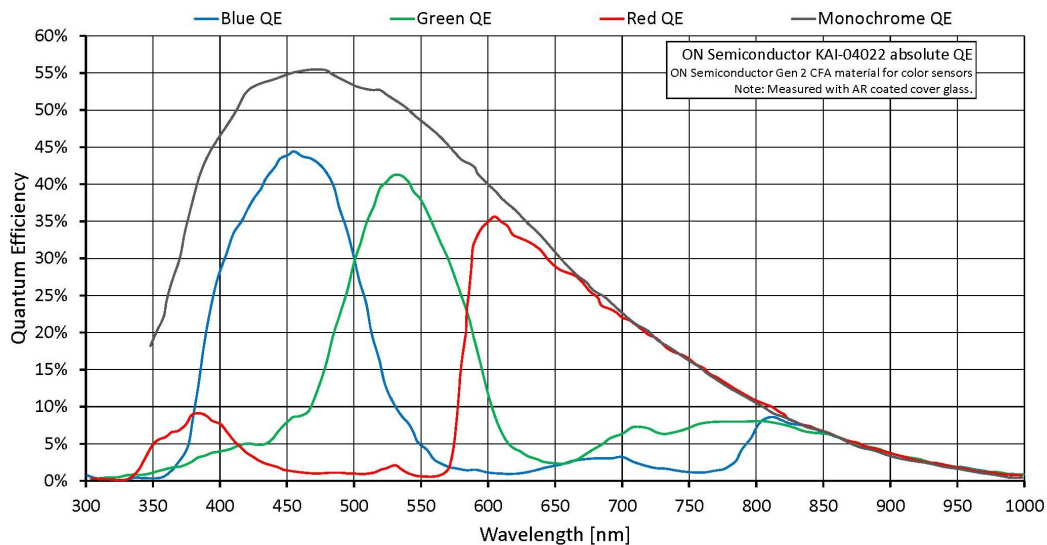
Prosilica GE2040 is a very high-resolution CCD camera with Gigabit Ethernet output. This camera features the high-quality ON Semiconductor KAI-04022 CCD image sensor that provides superior image quality, excellent sensitivity, and low noise. At full resolution, this camera has a frame rate of 15 frames 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 | 2040 |
|------------------------------------|-----------------------------|
| Interface | IEEE 802.3 1000baseT |
| Resolution | 2040 (H) × 2048 (V) |
| Sensor | ON Semi KAI-04022 |
| Sensor type | CCD Progressive |
| Sensor size | Type 1.2 |
| Pixel size | 7.4 μm × 7.4 μm |
| Lens mount (default) | C-Mount |
| Max. frame rate at full resolution | 15 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 |

| | |
|---|---|
| Prosilica GE | 2040 |
| 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 | 5.5 W at 12 VDC |
| Mass | 169 g |
| Body dimensions (L × W × H in mm) | 80 × 51 × 39 (including connectors) |
| Regulations | 2011/65/EU, including amendment 2015/863/EU (RoHS) |

Quantum efficiency



Features

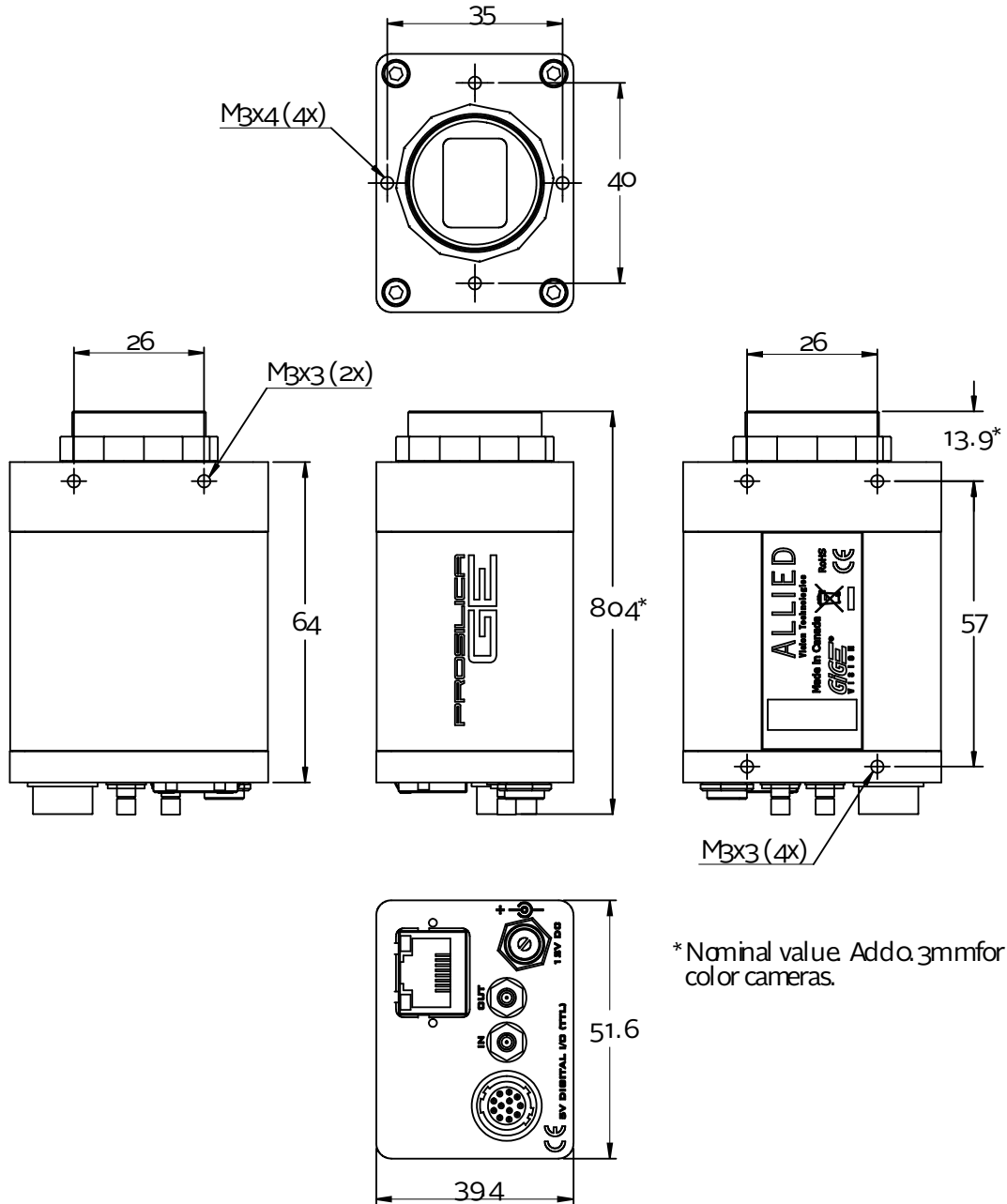
Prosilica GE2040 features include:

- 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 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
- Chunk data
- Storable user sets

Technical drawing



* Nominal value Add 0.3mm for color cameras.



Applications

Prosilica GE2040 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