

Prosilica GE 1650



- 32 fps @ full resolution
- ON Semi KAI-2020 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 1650 with ON Semi KAI-2020 runs 32.0 frames per second at 1.9 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.

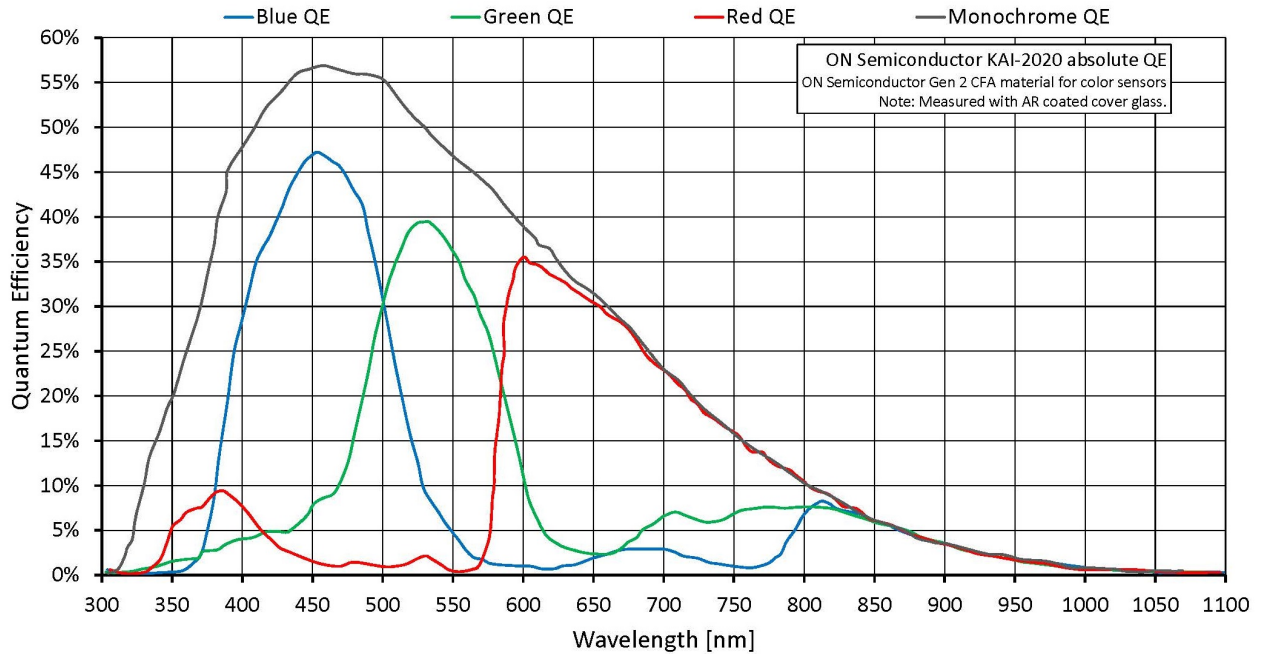
- Compact size
- VGA to 16 Megapixel resolution
- Fast frame rates to 205 fps
- OnSemi KAI CCD sensors
- Modular options available

Specifications

| Prosilica GE 1650 | |
|-------------------|----------------------|
| Interface | IEEE 802.3 1000baseT |
| Resolution | 1600 (H) × 1200 (V) |
| Sensor | ON Semi KAI-2020 |
| Sensor type | CCD Progressive |
| Sensor size | Type 1 |

| Prosilica GE 1650 | |
|---|---|
| Pixel size | 7.4 μm \times 7.4 μm |
| Lens mount (default) | C-Mount |
| Max. frame rate at full resolution | 32 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 |
| 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 $^{\circ}\text{C}$ to +50 $^{\circ}\text{C}$ ambient (without condensation) |
| Power requirements (DC) | 5 to 24 VDC |
| Power consumption | 5 W at 12 VDC |
| Mass | 169 g |
| Body dimensions (L \times W \times H in mm) | 80 \times 51 \times 39 (including connectors) |
| Regulations | 2011/65/EU, including amendment 2015/863/EU (RoHS) |

Quantum efficiency



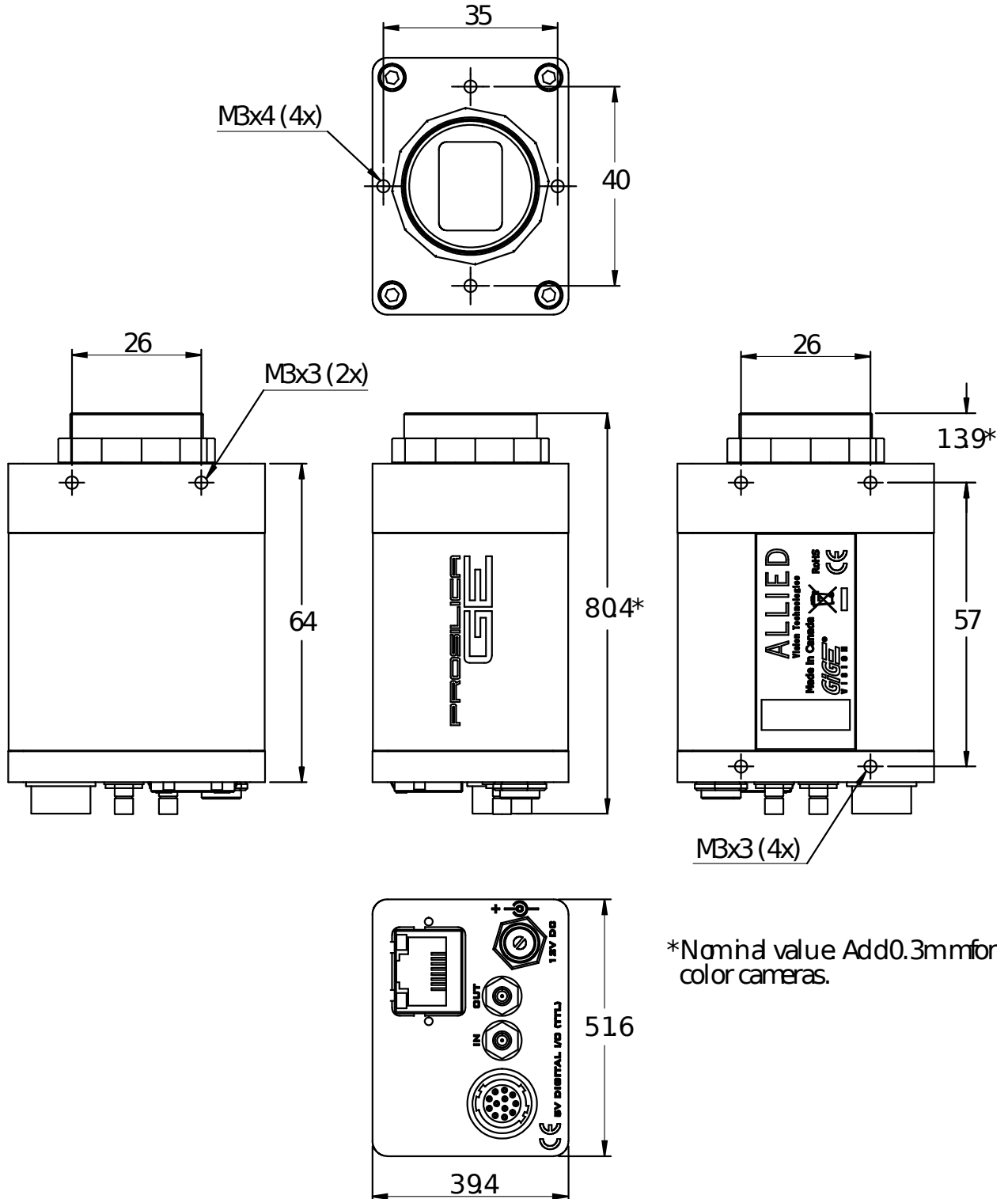
Features

Prosilica GE1650 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: 50 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



Applications

Prosilica GE1650 is ideal for a wide range of applications including:

- Industrial inspection
- Machine vision
- LCD panel inspection
- Medical imaging
- Ophthalmology
- Aeronautical and aerospace
- Public security
- Surveillance
- Traffic imaging
- OEM applications