

Prosilica GT

1660C

- Versatile temperature range for extreme environments
- IEEE 1588 PTP
- Power over Ethernet
- P-Iris and DC-Iris lens control

Engineered for every environment

High-resolution cameras for demanding applications

Prosilica GT 1660C with ON Semi KAI-02050 runs 62 frames per second at 1.9 MP resolution.

The rugged housing optimized for heat dissipation makes Prosilica GT the ideal solution for harsh environments. The various lens control options allow constant adjustment of the image brightness to changing light conditions. Offering resolutions of up to 31 megapixels, they are ideal for high-definition imaging applications with demanding requirements of robustness and design-in flexibility.

Easy software integration with Allied Vision's [Vimba X](#) and compatibility to the most popular [third party image-processing libraries](#).

See the [Modular Concept](#) for lens mount, housing variants, optical filters, case design, and other modular options. See the [Customization and OEM Solutions](#) webpage for additional options.

Specifications

| | |
|------------------------------------|---|
| Interface | IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) |
| Resolution | 1600 (H) × 1200 (V) |
| Sensor | ON Semi KAI-02050 |
| Sensor type | CCD Progressive |
| Shutter mode | GS (Global shutter) |
| Sensor size | Type 2/3 |
| Pixel size | 5.5 μm × 5.5 μm |
| Lens mounts (available) | C-Mount, CS-Mount, F-Mount, M42-Mount |
| Max. frame rate at full resolution | 62.1 fps |
| ADC | 14 Bit |
| Image buffer (RAM) | 128 MByte |

Imaging performance

Imaging performance data is based on the evaluation methods in the EMVA 1288 Release 3.1 standard for characterization of image sensors and cameras. Measurements are typical values for monochrome models measured at full resolution without optical filter.

| | |
|--------------------------------|----------------------|
| Quantum efficiency at 529 nm | 42 % |
| Temporal dark noise | 16.4 e ⁻ |
| Saturation capacity | 18900 e ⁻ |
| Dynamic range | 61.0 dB |
| Absolute sensitivity threshold | 16.9 e ⁻ |

Output

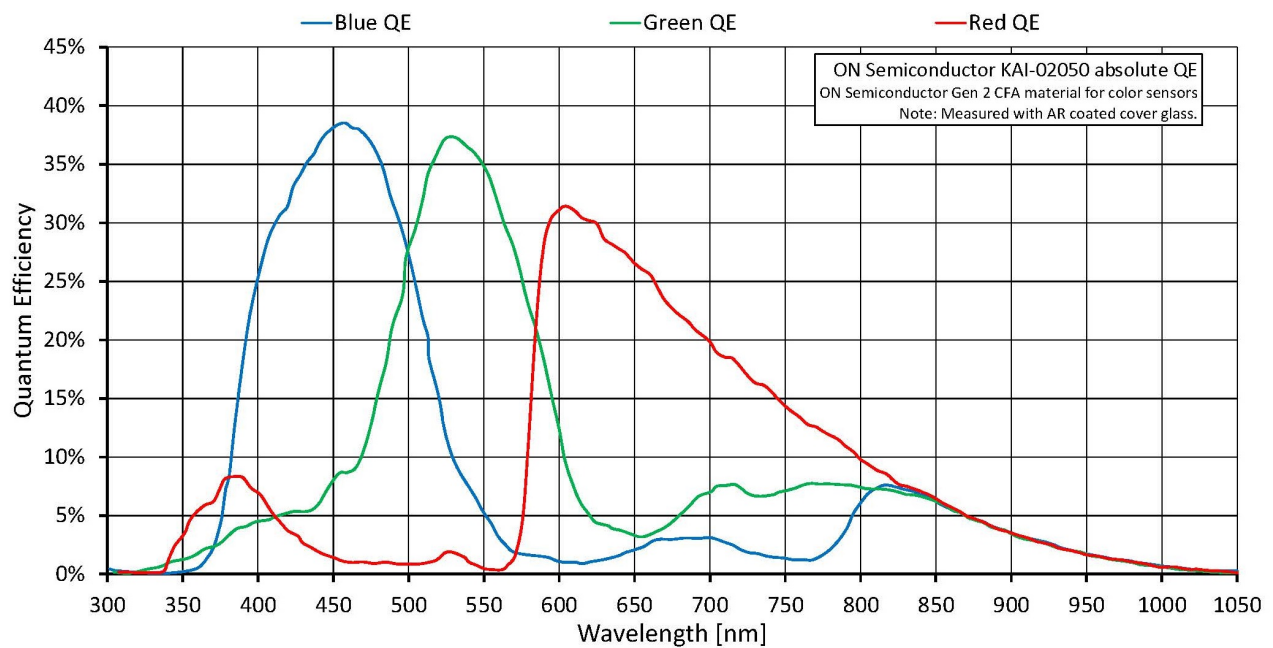
| | |
|---------------------------------|--|
| Bit depth | 12-bit or 14-bit |
| Monochrome pixel formats | Mono8 |
| YUV color pixel formats | YUV411Packed, YUV422Packed, YUV444Packed |
| RGB color pixel formats | RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed |
| Raw color pixel formats (Bayer) | BayerGR8, BayerGR12, BayerRG12Packed |

General purpose inputs/outputs (GPIOs)

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| TTL I/Os | 1 input, 2 outputs |
|----------|--------------------|

| | |
|--|---|
| Opto-isolated I/Os | 1 input, 2 outputs |
| RS232 | 1 |
| Operating conditions/dimensions | |
| Operating temperature | -20 °C to +60 °C ambient (without condensation) |
| Power requirements (DC) | 7 to 25 VDC AUX or 802.3at Type 1 PoE |
| Power consumption | 5.1 W at 12 VDC; 6.3 W PoE |
| Mass | 224 g |
| Body dimensions (L × W × H in mm) | 92 × 53.3 × 33 (including connectors) |

Quantum efficiency



Features

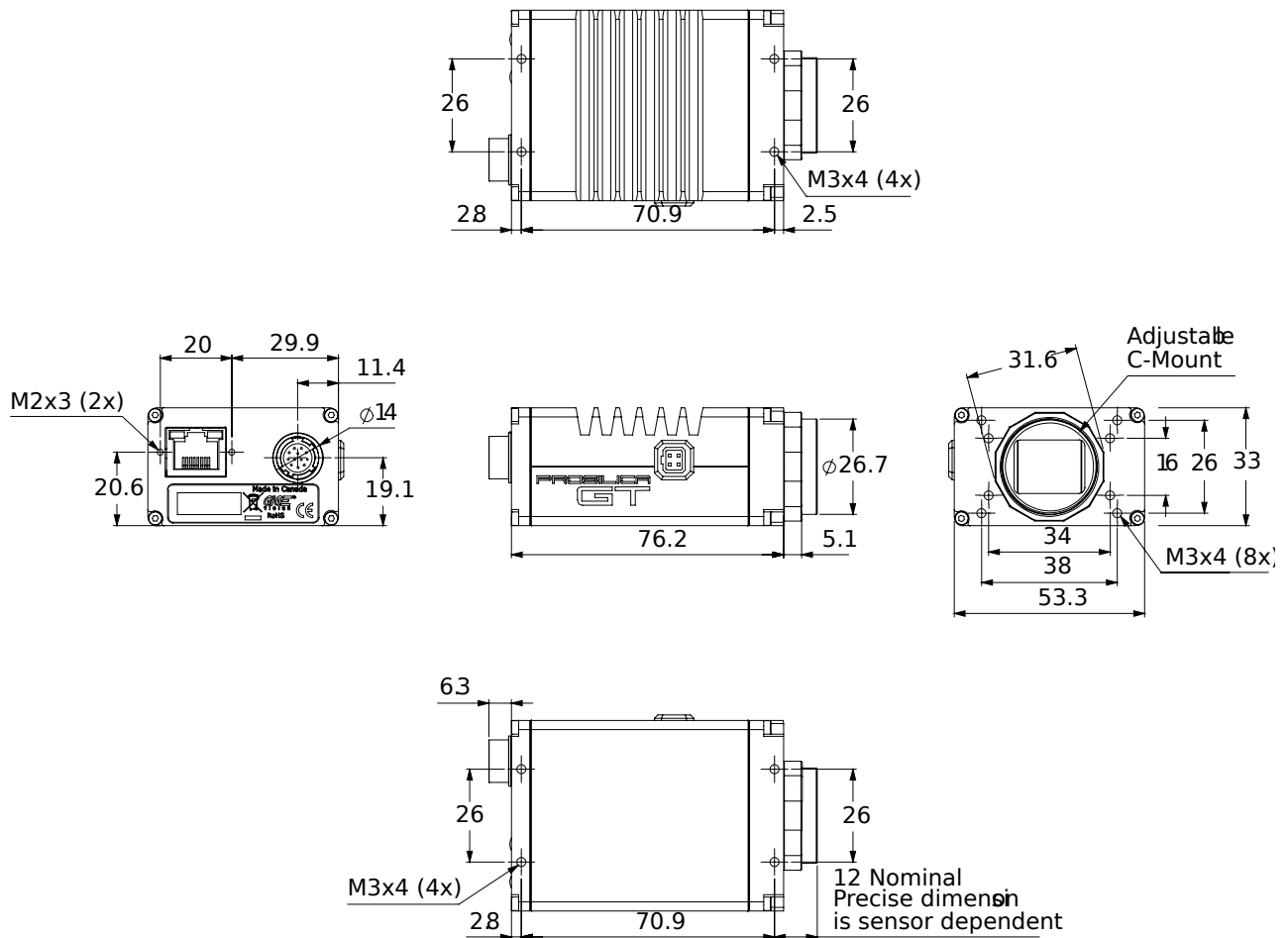
Image optimization features:

- Auto gain (manual gain control: 0 to 32 dB)
- Auto exposure (manual exposure control: 10 μ s to 26.8 s)
- Auto white balance
- Binning (horizontal and vertical)
- Color correction, hue, saturation
- Decimation X/Y
- Defect pixel column masking (user defined with Load Defect Tables tool)
- Gamma correction
- Three look-up tables
- Region of interest, separate region for auto features
- Reverse X/Y

Camera control features:

- P-Iris and DC-Iris lens control
- Event channel
- Image chunk data
- IEEE 1588 Precision Time Protocol
- RS232
- Storable user sets
- StreamBytesPerSecond (bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Tap mode switchable in Vimba Viewer 2.0 or later (four-tap, one-tap)
- Temperature monitoring (main board and sensor board)
- Trigger over Ethernet Action Commands

Technical drawing



Applications

Prosilica GT1660C is ideal for a wide range of applications including:

- Outdoor imaging
- Traffic imaging and Intelligent Traffic Systems
- Public security and surveillance
- Industrial inspection
- Machine vision
- Military and space applications