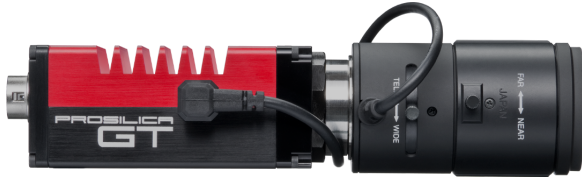


# Prosilica GT 2050



- 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 2050 with CMOSIS/ams CMV4000 runs 28.6 frames per second at 4.2 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 Suite](#) and compatibility to the most popular [third party image-processing libraries](#).

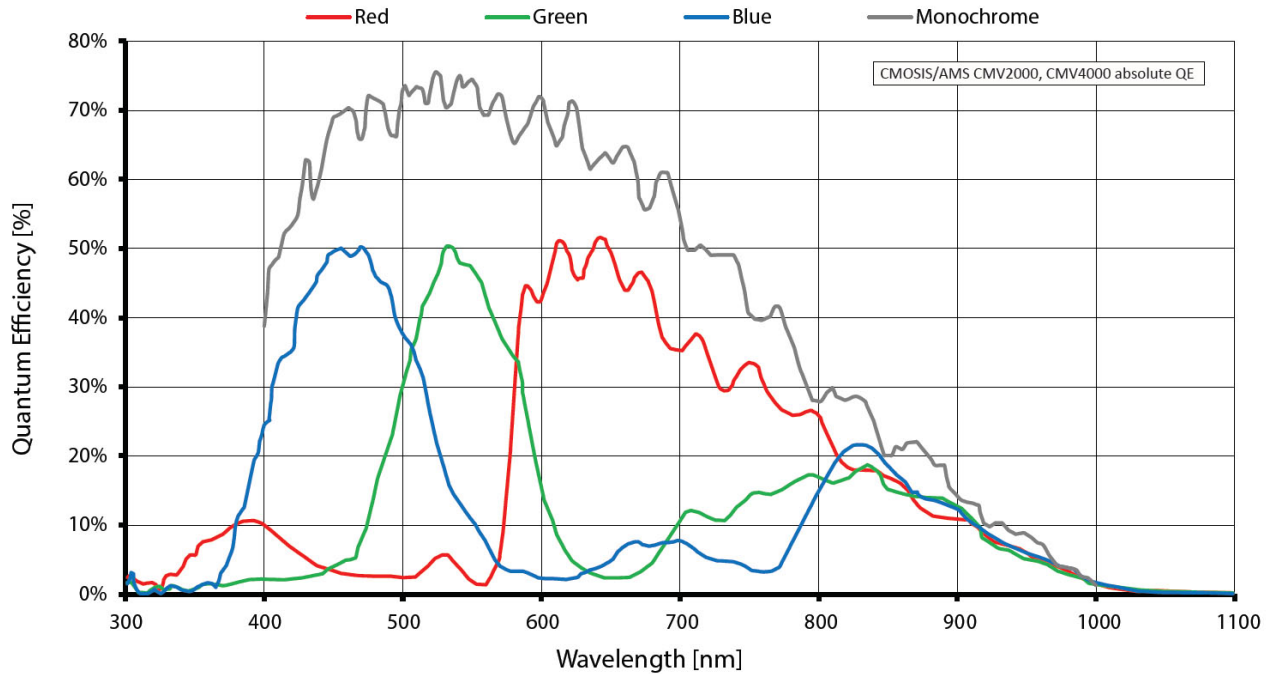
See the [Modular Concept](#) for lens mount, housing variants, optical filters, case design, and other modular options. See the [Customization and OEM Solutions](#) webpage for additional options.

## Specifications

| Prosilica GT 2050 |   |
|-------------------|---|
| Interface         | IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE) |
| Resolution        | 2048 (H) × 2048 (V)                       |
| Sensor            | CMOSIS/ams CMV4000                        |
| Sensor type       | CMOS                                      |
| Shutter mode      | Global shutter                            |
| Sensor size       | Type 1                                    |
| Pixel size        | 5.5 μm × 5.5 μm                           |

| <b>Prosilica GT 2050</b>   |   |
|--|---|
| Lens mounts (available)  | C-Mount, CS-Mount, F-Mount, M42-Mount   |
| Max. frame rate at full resolution   | 28.6 fps  |
| ADC  | 12 Bit  |
| Image buffer (RAM)   | 128 MByte   |
| <b>Imaging performance</b>   |   |
| 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   | 79 %  |
| Temporal dark noise  | 10.4 e <sup>-</sup>   |
| Saturation capacity  | 9500 e <sup>-</sup>   |
| Dynamic range  | 59.2 dB   |
| Absolute sensitivity threshold   | 10.9 e <sup>-</sup>   |
| <b>Output</b>  |   |
| Bit depth  | 8/12 Bit  |
| Monochrome pixel formats   | Mono8, Mono12, Mono12Packed   |
| YUV color pixel formats  | YUV411Packed, YUV422Packed, YUV444Packed  |
| RGB color pixel formats  | RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed  |
| Raw pixel formats  | BayerGB8, BayerGB12, BayerGB12Packed  |
| <b>General purpose inputs/outputs (GPIOs)</b>  |   |
| TTL I/Os   | 1 input, 2 outputs  |
| Opto-isolated I/Os   | 1 input, 2 outputs  |
| RS232  | 1   |
| <b>Operating conditions/dimensions</b>   |   |
| Operating temperature  | -20 °C to +65 °C ambient (without condensation)   |
| Power requirements (DC)  | 7 to 25 VDC AUX or 802.3at Type 1 PoE   |
| Power consumption  | 3.5 W at 12 VDC; 4.3 W PoE  |
| Mass   | 210 g   |
| Body dimensions (L × W × H in mm)  | 86 × 53.3 × 33 (including connectors)   |
| Regulations  | CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class A; CAN ICES-003 Issue 4/5 |

## Quantum efficiency



## Features

Image optimization features:

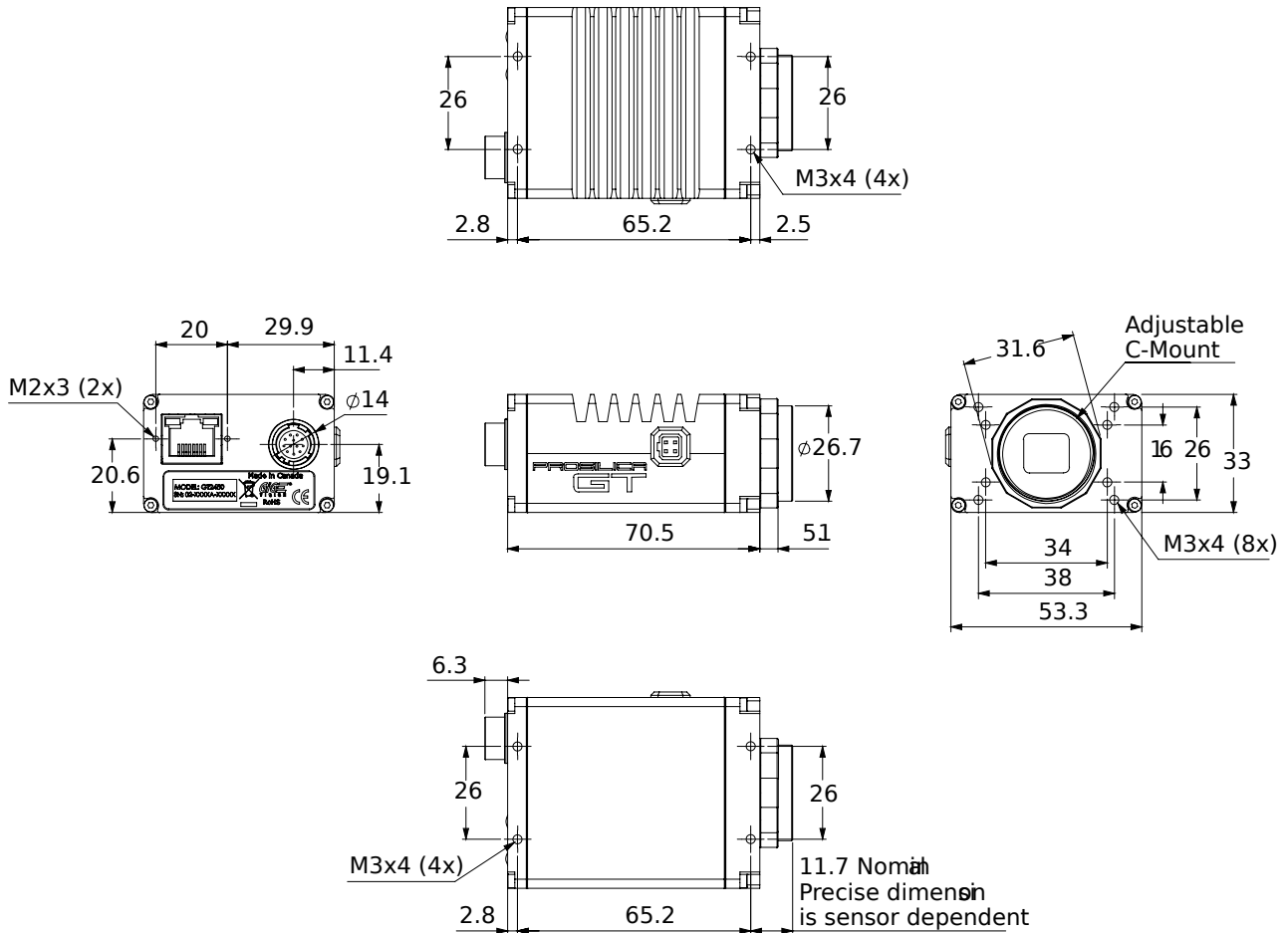
- Auto gain (manual gain control: 0 to 26 dB)
- Auto exposure (manual exposure control: 34  $\mu$ s to 126.2 s)
- Auto white balance (GT2050C only)
- BlackLevel (offset)
- Color correction, hue, saturation (GT2050C only)
- Defect pixel masking (user defined with Defect Mask Loader tool)
- Gamma correction
- Three look-up tables
- Piecewise Linear HDR mode
- Region of interest, separate region for auto features



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
- Temperature monitoring (main board only)
- Trigger over Ethernet Action Commands

## Technical drawing



## Applications

Prosilica GT2050 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