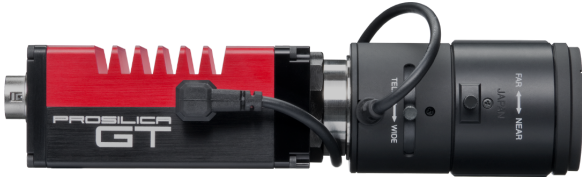


# Prosilica GT 2050



- -20° C to +65° C (ambient temperature)
- PoE
- IEEE 1588 PTP
- Trigger over Ethernet
- Auto iris

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

## Prosilica GT 2050

Pixel size	5.5 $\mu\text{m}$ $\times$ 5.5 $\mu\text{m}$
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

## 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	79 %
Temporal dark noise	10.4 $e^-$
Saturation capacity	9500 $e^-$
Dynamic range	59.2 dB
Absolute sensitivity threshold	10.9 $e^-$

## Output

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

## General purpose inputs/outputs (GPIOs)

TTL I/Os	1 input, 2 outputs
Opto-isolated I/Os	1 input, 2 outputs
RS232	1

## Operating conditions/dimensions

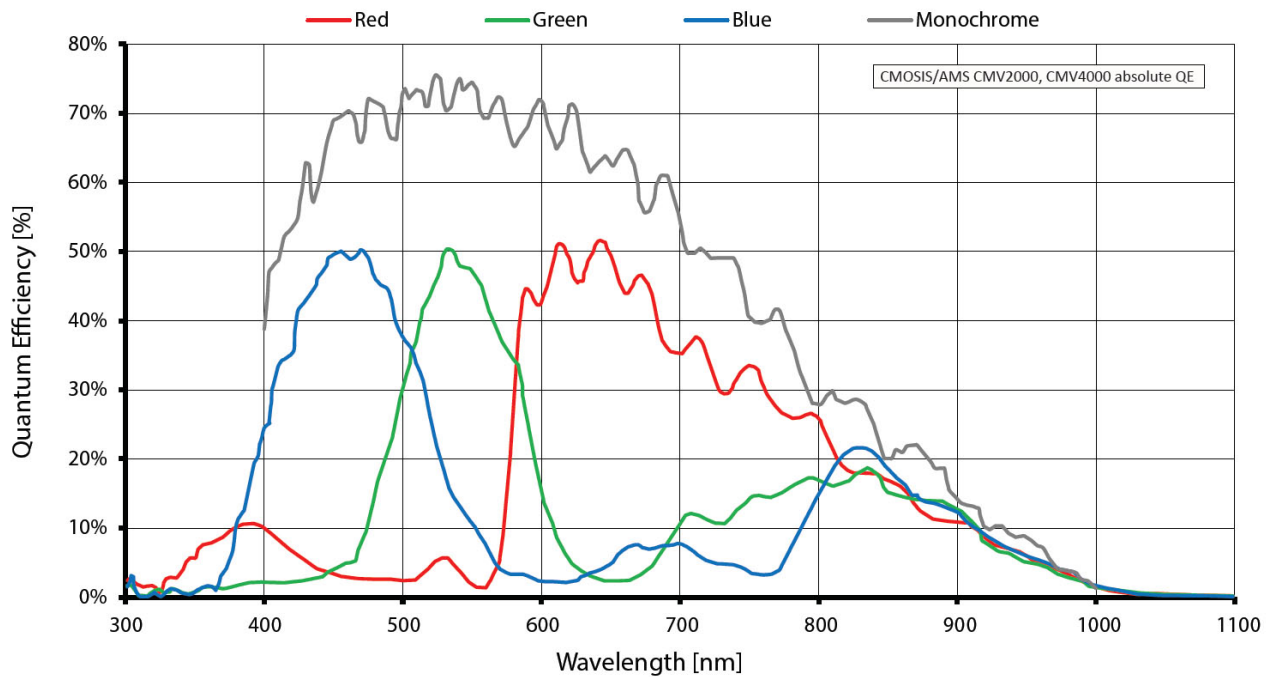
Operating temperature	-20 °C to +65 °C ambient (without condensation)
Power requirements (DC)	7 to 25 VDC AUX or 802.3at Type 1 PoE
Power consumption	3.5 W at 12 VDC; 4.3 W PoE
Mass	210 g
Body dimensions (L $\times$ W $\times$ H in mm)	86 $\times$ 53.3 $\times$ 33 (including connectors)

## Prosilica GT 2050

### 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 control: Auto

- Auto exposure
- Auto gain
- Auto white balance (color models)

### Image control: Other

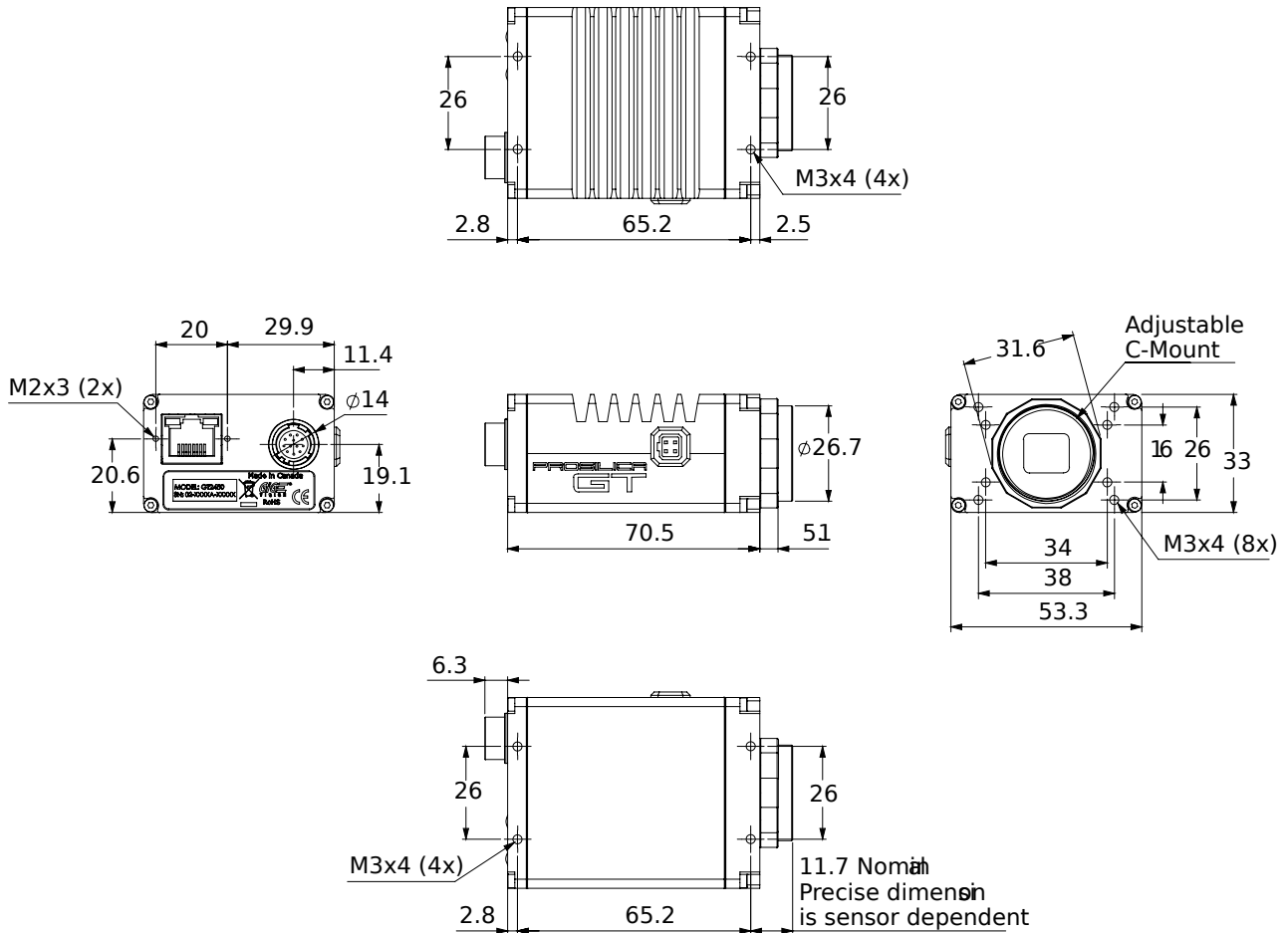
- Black level
- Color transformation (incl. hue, saturation; color models)
- Decimation

- DPC (defect pixel correction)
- Gamma
- HDR mode
- LUT (look-up table)
- Reverse X/Y
- ROI (region of interest)

## Camera control

- Acquisition frame rate
- Auto iris
- Bandwidth control
- Event channel
- Firmware update in the field
- I/O and trigger control
- Image chunk data
- PTP (IEEE 1588 Precision Time Protocol)
- Stream hold
- Temperature monitoring
- ToE (trigger over Ethernet, action commands)
- User sets

## 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