

# Prosilica GT

## 4905



- Versatile temperature range for extreme environments
- IEEE 1588 PTP
- Power over Ethernet
- 7.5 fps at full resolution

### Engineered for every environment

High-resolution cameras for demanding applications

Prosilica GT 4905 with ON Semi KAI-16050 runs 7.5 frames per second at 16.0 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

Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
Resolution	4896 (H) × 3264 (V)
Sensor	ON Semi KAI-16050
Sensor type	CCD Progressive
Shutter mode	GS (Global shutter)
Sensor size	Type APS-H
Pixel size	5.5 μm × 5.5 μm
Lens mounts (available)	F-Mount
Max. frame rate at full resolution	7.5 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	41 %
Temporal dark noise	17.8 e <sup>-</sup>
Saturation capacity	20700 e <sup>-</sup>
Dynamic range	61.1 dB
Absolute sensitivity threshold	18.3 e <sup>-</sup>

### Output

Bit depth	12-bit or 14-bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed, Mono14
YUV color pixel formats	YUV411Packed, YUV422Packed, YUV444Packed
RGB color pixel formats	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed
Raw pixel formats	BayerGR8, BayerGR12, BayerRG12Packed

### General purpose inputs/outputs (GPIOs)

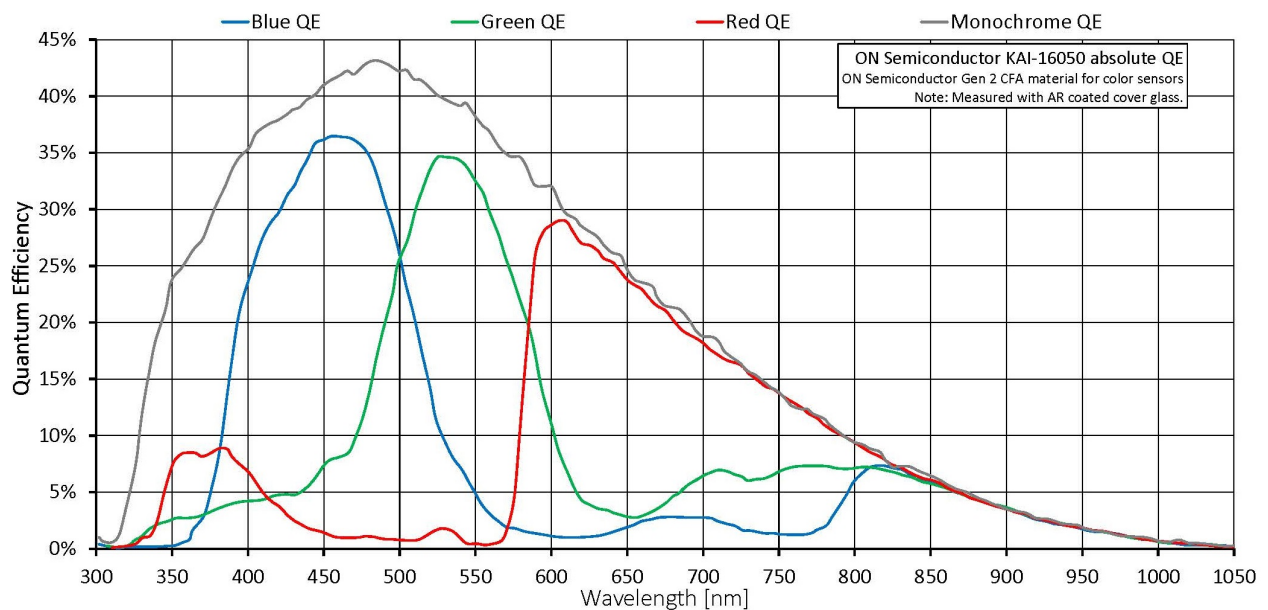
TTL I/Os	1 input, 2 outputs
----------	--------------------

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

### Operating conditions/dimensions

Operating temperature	-20 °C to +50 °C ambient (without condensation)
Power requirements (DC)	7 to 25 VDC AUX or 802.3at Type 1 PoE
Power consumption	7.3 W at 12 VDC; 9.0 W PoE
Mass	372 g
Body dimensions (L × W × H in mm)	96 × 66 × 53.3 (including connectors)

## Quantum efficiency



## Features

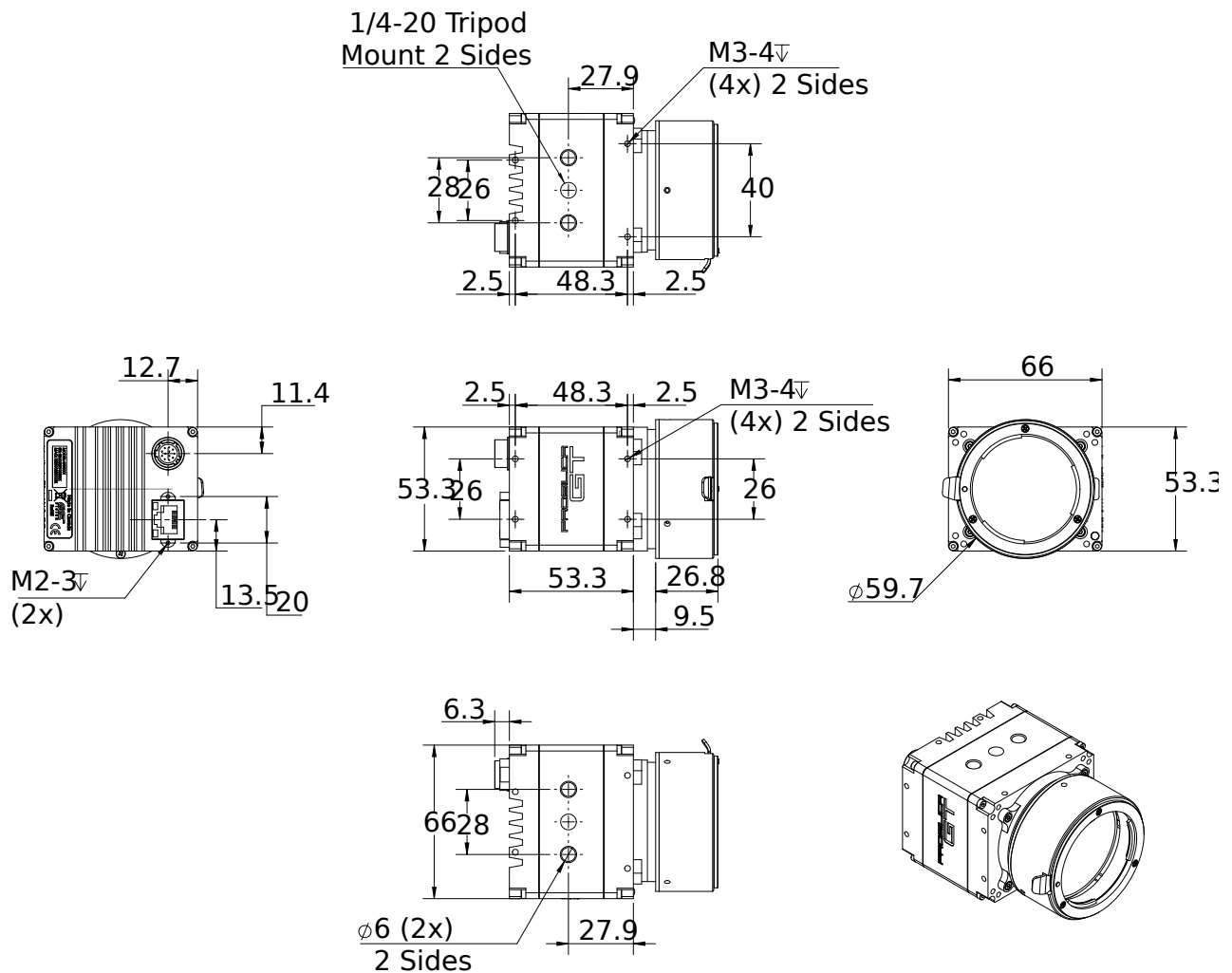
### Image optimization features:

- Auto gain (manual gain control: 0 to 33 dB)
- Auto exposure (manual exposure control: 15  $\mu$ s to 26.8 s)
- Auto white balance (GT4905C only)
- Binning (horizontal and vertical)
- Color correction, hue, saturation (GT4905C only)
- Defect pixel masking (user defined with Defect Mask Loader tool)
- Decimation X/Y
- Gamma correction
- Three look-up tables
- Region of interest, separate region for auto features
- Reverse X/Y

### Camera control features:

- EF lens control (order option -18)
- 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 GT4905 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