

# Prosilica GT

## 4905



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

## Description

### 16 Megapixel machine vision camera for extreme environments

Prosilica GT4905 is a 16 Megapixel camera with a GigE Vision compliant Gigabit Ethernet port and Hirose I/O port. Prosilica GT4905 is offered in both monochrome and color models. This camera incorporates the high quality ON Semiconductor KAI-16050 TRUESENSE Gen 2 CCD sensor providing excellent monochrome and color image quality. At full resolution, this camera runs 7.5 frames per second. With a smaller region of interest, higher frame rates are possible. It is a rugged camera designed to operate in extreme environments. This camera is a large format housing camera with a standard F-Mount lens mount. By default monochrome models ship with no optical filter and color models ship with an IRC30 IR cut filter.

### Benefits and features:

- Monochrome (GT4905) and color (GT4905C) models
- GigE Vision interface with Power over Ethernet
- Screw mount RJ45 Ethernet connector for secure operation in industrial environments
- Supports cable lengths up to 100 meters (CAT-5e or CAT-6)
- The ON Semiconductor KAI-16050 TRUESENSE Gen 2 is a high sensitivity CCD sensor
- Trigger over Ethernet (ToE) Action Commands allow for a single cable solution to reduce system costs
- Comprehensive I/O functionality for simplified system integration
- Planarity adjustable (PA) EF Lens Mount (option -18) for electronic control of aperture and autofocus
- Easy camera mounting via standard M3 threads at all sides and 1/4-20 tripod mounting hole
- Easy software integration with Allied Vision's [Vimba SDK](#) and compatibility to the most popular [third party image-processing libraries](#).

### Options:

- Available with F-Mount PA, M58-Mount, M58-Mount PA, EF-Mount PA, M42-Mount, M42-Mount PA

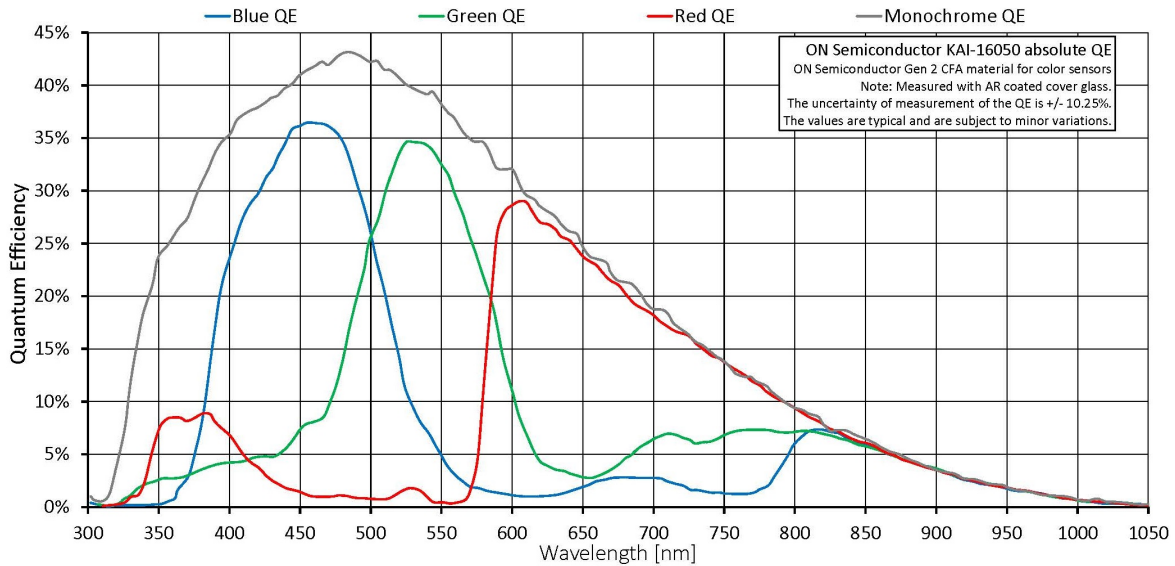


- Available with IRC30 IR cut filter, IRC Filter Schneider 486, or Protection Glass B 270 (ASG)
- Class 1 sensor option

See the [Modular Concept](#) for lens mount and optical filters options. See the [Customization and OEM Solutions](#) webpage for additional options.

## Specifications

<b>Prosilica GT</b>	<b>4905</b>
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
Resolution	4896 (H) × 3264 (V)
Sensor	ON Semi KAI-16050
Sensor type	CCD Progressive
Sensor size	Type APS-H
Pixel size	5.5 μm × 5.5 μm
Lens mount (default)	F-Mount
Max. frame rate at full resolution	7.5 fps
ADC	14 bit
Image buffer (RAM)	128 MByte
<b>Output</b>	
Bit depth	12/14 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
<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 +50 °C ambient (without condensation)
Power requirements (DC)	7 to 25 VDC; 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)
Regulations	CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class A; CAN ICES-003 Issue 4/5



## Features

### Image optimization features:

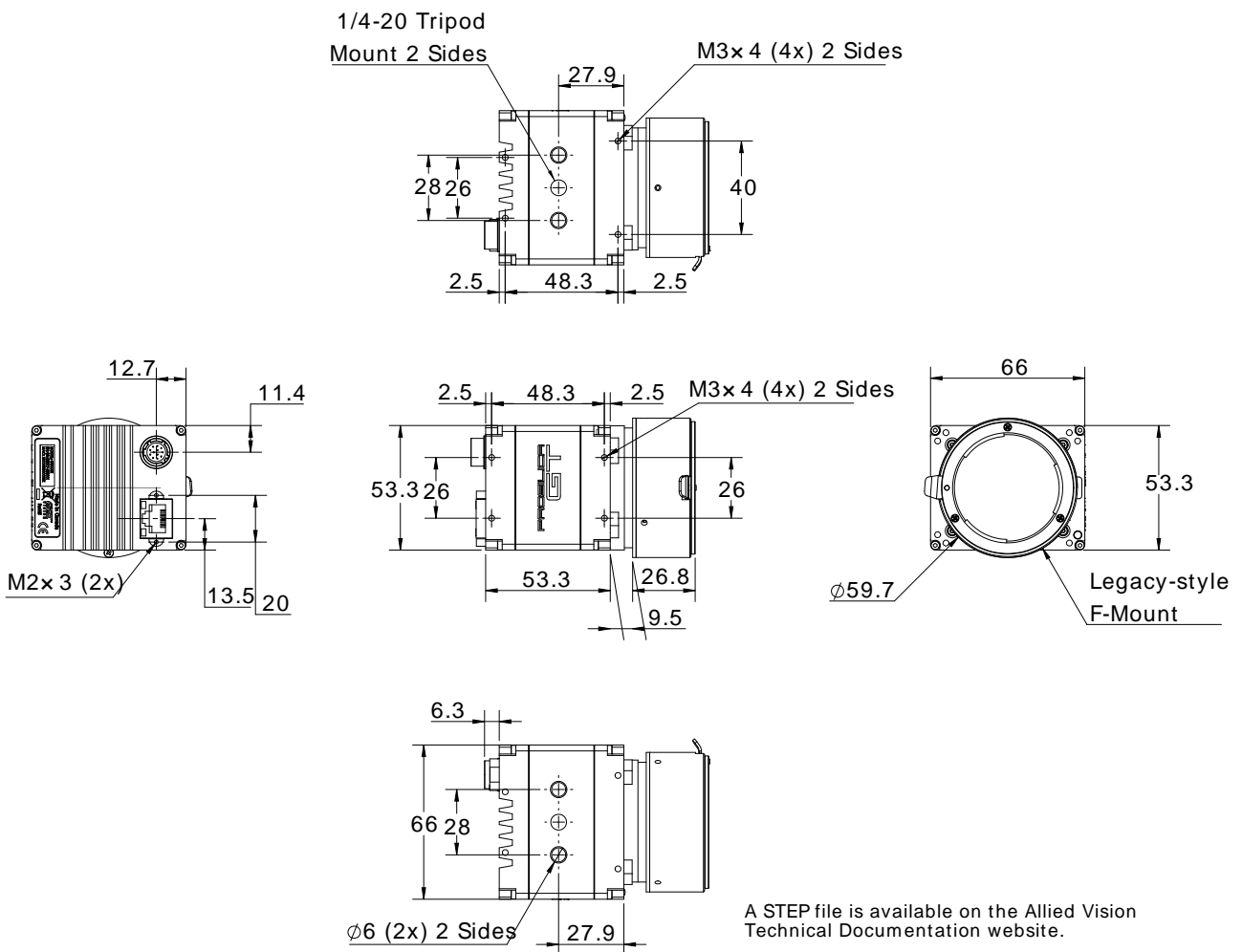
- Auto gain (manual gain control: 0 to 33 dB)
- Auto exposure (manual exposure control: 15  $\mu$ s to 26.8 s)
- Auto white balance (GT4905C only)
- Binning (horizontal and vertical)
- Color correction, hue, saturation (GT4905C only)
- Column defect masking
- Decimation X/Y
- Gamma correction
- Three look-up tables (LUTs)
- Region of interest (ROI), separate ROI 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 (PTP)
- 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 (ToE) Action Commands

## Technical drawing





## Applications

Prosilica GT4905 is ideal for a wide range of applications including:

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