

Prosilica GT

4907



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

15.7 Megapixel machine vision camera for extreme environments

Prosilica GT4907 is a 15.7 Megapixel camera with a GigE Vision compliant Gigabit Ethernet port and Hirose I/O port. Prosilica GT4907 is offered in both monochrome and color models. This camera incorporates the high quality ON Semiconductor KAI-16070 TRUESENSE Gen 2 CCD sensor providing excellent monochrome and color image quality. At full resolution, this camera runs 7.6 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. It is a large format housing camera with a F-Mount lens mount by default. By default monochrome models ship with no optical filter and color models ship with an IRC30 IR cut filter.

Benefits and features:

- Monochrome (GT4907) and color (GT4907C) 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-16070 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](#).
- Defect pixel masking feature with the Defect Mask Loader tool that allows you to manage a user defined defective pixel list to match your application and optimize the life cycle of the camera.

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

Prosilica GT	4907
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
Resolution	4864 (H) × 3232 (V)
Sensor	ON Semi KAI-16070
Sensor type	CCD Progressive
Sensor size	Type 35 mm
Pixel size	7.4 μm × 7.4 μm
Lens mount (default)	F-Mount
Max. frame rate at full resolution	7.6 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. Contact Sales or AE for more information.

Quantum efficiency at 529 nm	46 %
Temporal dark noise	18.1 e ⁻
Saturation capacity	37200 e ⁻
Dynamic range	66.0 dB
Absolute sensitivity threshold	18.6 e ⁻

Output

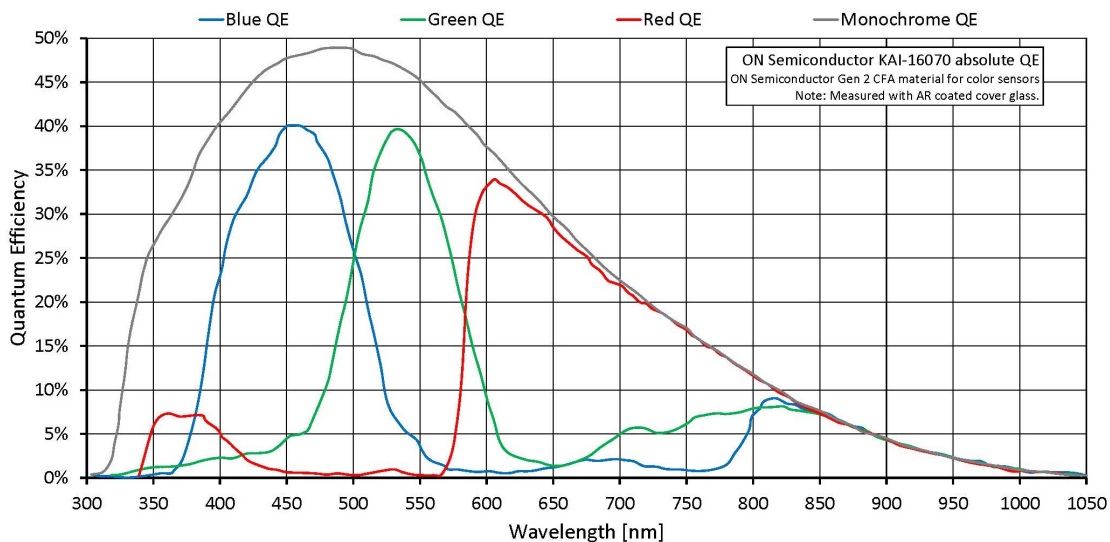
Bit depth	12/14 Bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed, Mono14
YUV color pixel formats	YUV411Packed, YUV422Packed, YUV444Packed
RGB color pixel formats	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed
Raw pixel formats	BayerGR8, BayerGR12, BayerRG12Packed

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

Prosilica GT	4907
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	7.7 W at 12 VDC; 9.5 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 32 dB)
- Auto exposure (manual exposure control: 35 μ s to 26.8 s)
- Auto white balance (GT4907C only)
- Binning (horizontal and vertical)
- Color correction, hue, saturation (GT4907C only)
- Defect pixel masking (user defined with Defect Mask Loader tool)
- Decimation X/Y
- Gamma correction
- Three look-up tables (LUTs)
- Region of interest (ROI), separate ROI for auto features

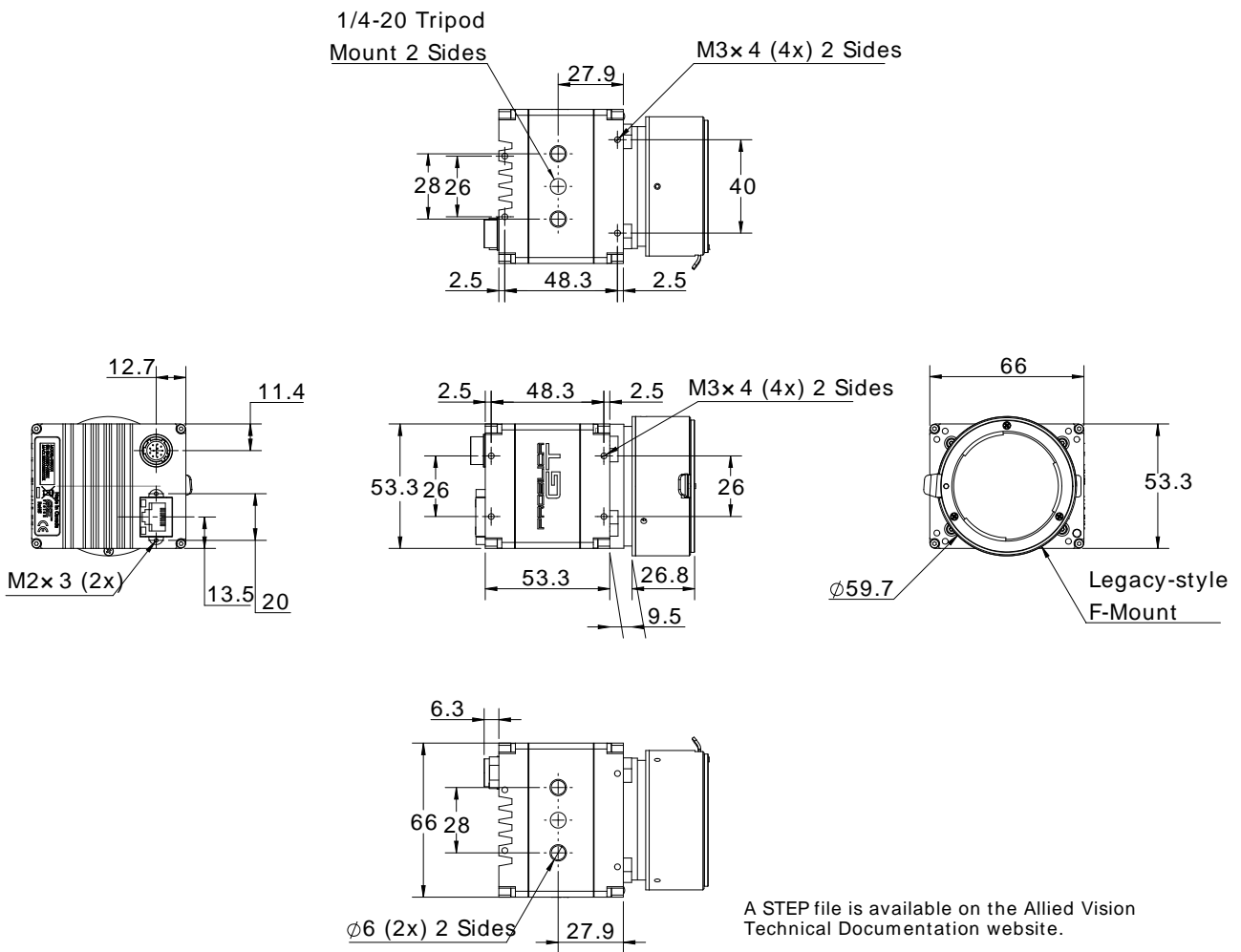


- Reverse X/Y

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 GT4907 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