

# Prosilica GC

## 660



- Sony ICX618 sensor
- 121 fps at full resolution
- Rugged housing
- Video-type auto iris

## GigE Vision, Sony EXview ICX618 CCD sensor, auto-iris, 121 fps

Prosilica GC660 is a 0.9 Megapixel camera with a GigE Vision compliant Gigabit Ethernet port and Hirose I/O port. Prosilica GC660 is offered in both monochrome and color models. This camera incorporates the high quality Type 1/4 (4.5 mm diagonal) Sony ICX618 CCD sensor with EXview HAD CCD technology that provides superior image quality, excellent sensitivity, and low noise. At full resolution, this camera has a frame rate of 121 frames per second. With a smaller region of interest higher frame rates are possible. By default monochrome models ship with no optical filter and color models ship with a Type IRC30 IR cut filter.

### Benefits and features

- Monochrome (GC660) and color (GC660C) models
- GigE Vision interface
- Screw mount RJ45 Ethernet connector for secure operation in industrial environments
- Supports cable lengths up to 100 meters (CAT-5e or CAT-6)
- Popular C-Mount lens mount
- Easy camera mounting via standard M3 threads or optional tripod adapter
- Easy software integration with Allied Vision's [Vimba Suite](#) and compatibility to the most popular [third party image-processing libraries](#).

### Hardware options

- Various lens mounts: Select between C-Mount and CS-Mount
- Various optical filters: Select between B 270 ASG protection glass Type IRC30 IR pass filter.

See the [Modular Concept](#) for lens mount and optical filter options.

## Specifications

| <b>Prosilica GC</b>  | <b>660</b>                                    |
|--|---|
| Interface  | IEEE 802.3 1000baseT                          |
| Resolution   | 658 (H) × 493 (V)                             |
| Sensor   | Sony ICX618                                   |
| Sensor type  | CCD Progressive                               |
| Shutter mode   | Global shutter                                |
| Sensor size  | Type 1/4                                      |
| Pixel size   | 5.6 μm × 5.6 μm                               |
| Lens mount (default)   | C-Mount                                       |
| Max. frame rate at full resolution   | 121 fps                                       |
| ADC  | 12 Bit  |
| Image buffer (RAM)   | 64 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  | 16.7 e <sup>-</sup>                           |
| Saturation capacity  | 49400 e <sup>-</sup>                          |
| Dynamic range  | 61.0 dB                                       |
| Absolute sensitivity threshold   | 17.3 e <sup>-</sup>                           |
| <b>Output</b>  |   |
| Bit depth  | 8/12 Bit                                      |
| Monochrome pixel formats   | Mono8, Mono12, Mono12Packed                   |
| RGB color pixel formats  | RGB8Packed, BGR8Packed                        |
| Raw pixel formats  | BayerRG8, BayerRG12, BayerRG12Packed          |
| <b>General purpose inputs/outputs (GPIOs)</b>  |   |
| TTL I/Os   | 1 input, 1 output                             |
| Opto-isolated I/Os   | 1 input, 1 output                             |
| RS232  | 1   |
| <b>Operating conditions/dimensions</b>   |   |
| Operating temperature  | 0 °C to +50 °C ambient (without condensation) |
| Power requirements (DC)  | 5 to 25 VDC                                   |
| Power consumption  | 3 W at 12 VDC                                 |
| Mass   | 105 g   |
| Body dimensions (L × W × H in mm)  | 59 × 46 × 33 (including connectors)           |

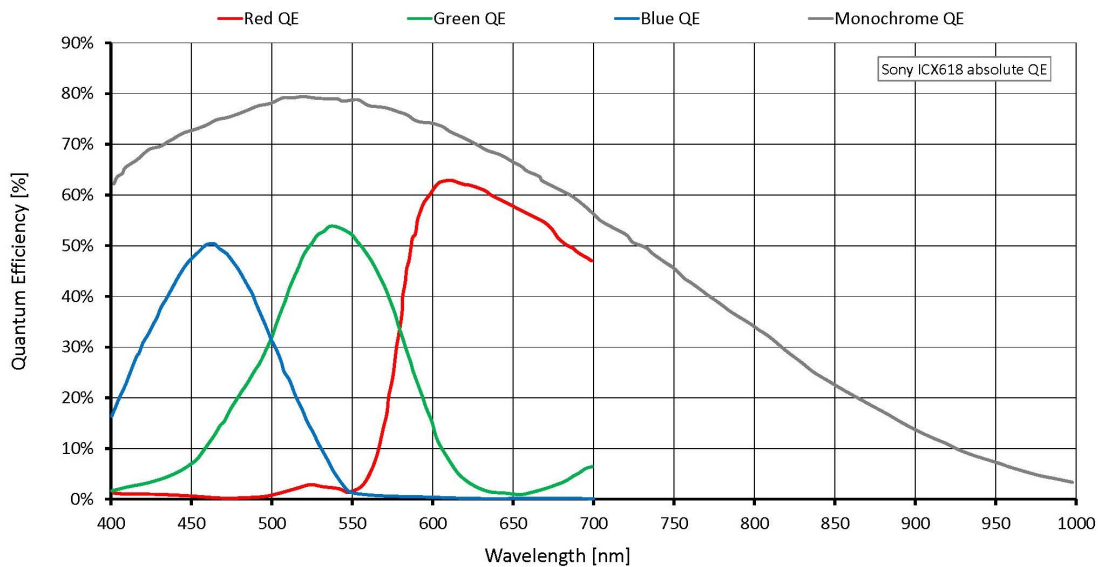
## Prosilica GC

Regulations

660

CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class A; CAN ICES-003

## Quantum efficiency



## Features

### Image optimization features:

- Auto gain (manual gain control: 0 to 34 dB; 1 dB increments)
- Auto exposure (manual exposure control: 10  $\mu$ s to 72.9 s; 1  $\mu$ s increments)
- Auto white balance (GC660C only)
- Binning (horizontal and vertical) (sum)
- Black level (Offset)
- Gamma correction
- Hue, saturation, color transformation (GC660C only)
- Three look-up tables
- Region of interest, DSP subregion (selectable region for auto features)

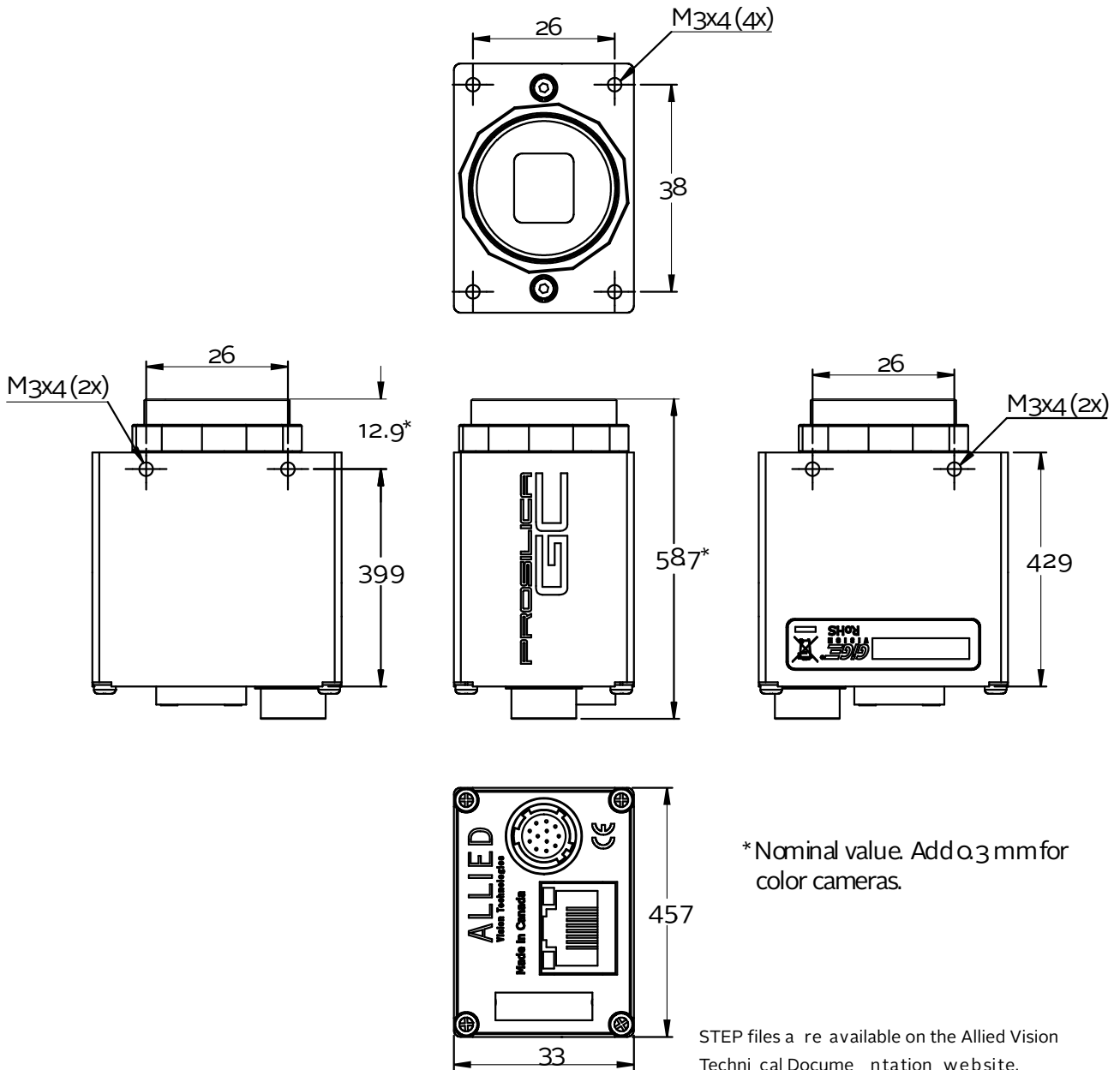
### Camera control features:

- Auto-iris (video type)
- Event channel



- Global shutter (digital shutter)
- IEEE 1588 Precision Time Protocol
- Image chunk data
- Recorder and Multiframe acquisition modes
- RS232
- Three storable user sets
- StreamBytesPerSecond (bandwidth control)
- StreamHoldCapacity (up to 194 frames at full resolution)
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Temperature monitoring (mainboard only)

## Technical drawing





## Applications

Prosilica GC660 is ideal for a wide range of applications including:

- Machine vision
- Industrial inspection
- Public security
- Traffic monitoring
- Robotics