Allied Vision

Prosilica GC

650

- Sony ICX424 sensor
- 90 fps at full resolution
- Rugged housing
- Video-type auto iris

Very small VGA CCD camera with GigE Vision, 90 frames per second

Prosilica GC650 is a fast, VGA-resolution, high-performance machine vision camera with a GigE Vision compliant Gigabit Ethernet interface. The Sony ICX424 CCD sensor with HAD technology has excellent image quality and sensitivity. This camera is suitable for applications where speed and excellent image quality are key requirements. At full resolution, this camera has a frame rate of 90 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.

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

Prosilica GC	**650**
Interface	IEEE 802.3 1000baseT
Resolution	659 (H) × 493 (V)
Sensor	Sony ICX424
Sensor type	CCD Progressive
Shutter mode	Global shutter

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Sensor size	Type 1/3
Pixel size	7.4 µm × 7.4 µm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	90 fps
ADC	12 Bit
Image buffer (RAM)	16 MByte
Output	
Bit depth	8/12 Bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed
RGB color pixel formats	RGB8Packed, BGR8Packed
Raw pixel formats	BayerRG8, BayerRG12, BayerGR12Packed
General purpose inputs/outputs (GPIOs)	
TTL I/Os	1 input, 1 output
Opto-isolated I/Os	1 input, 1 output
RS232	1
Operating conditions/dimensions	
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	99 g
Body dimensions (L × W × H in mm)	59 × 46 × 33 (including connectors)
Regulations	CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class A; CAN ICES-003

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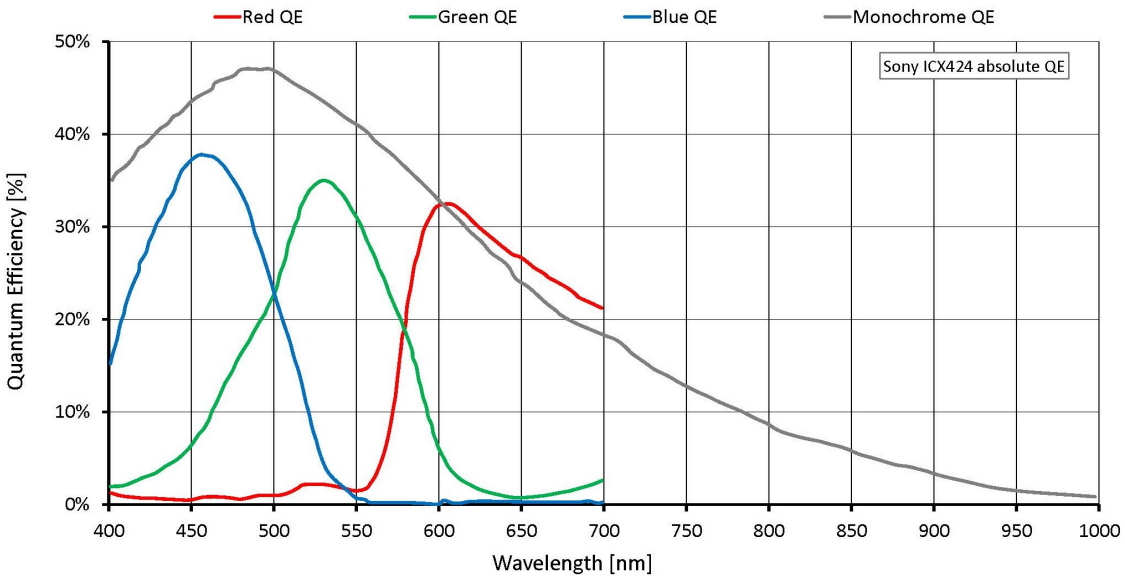
Quantum efficiency



Features

Image optimization features:

- Auto gain (manual gain control: 0 to 19 dB)
- Auto exposure (manual exposure control:8 µs to 116.8 s at 1 µs increments)
- Auto white balance
- Binning (horizontal and vertical) (sum)
- 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
- Five storable user sets
- StreamBytesPerSecond (bandwidth control)
- Stream hold

- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO

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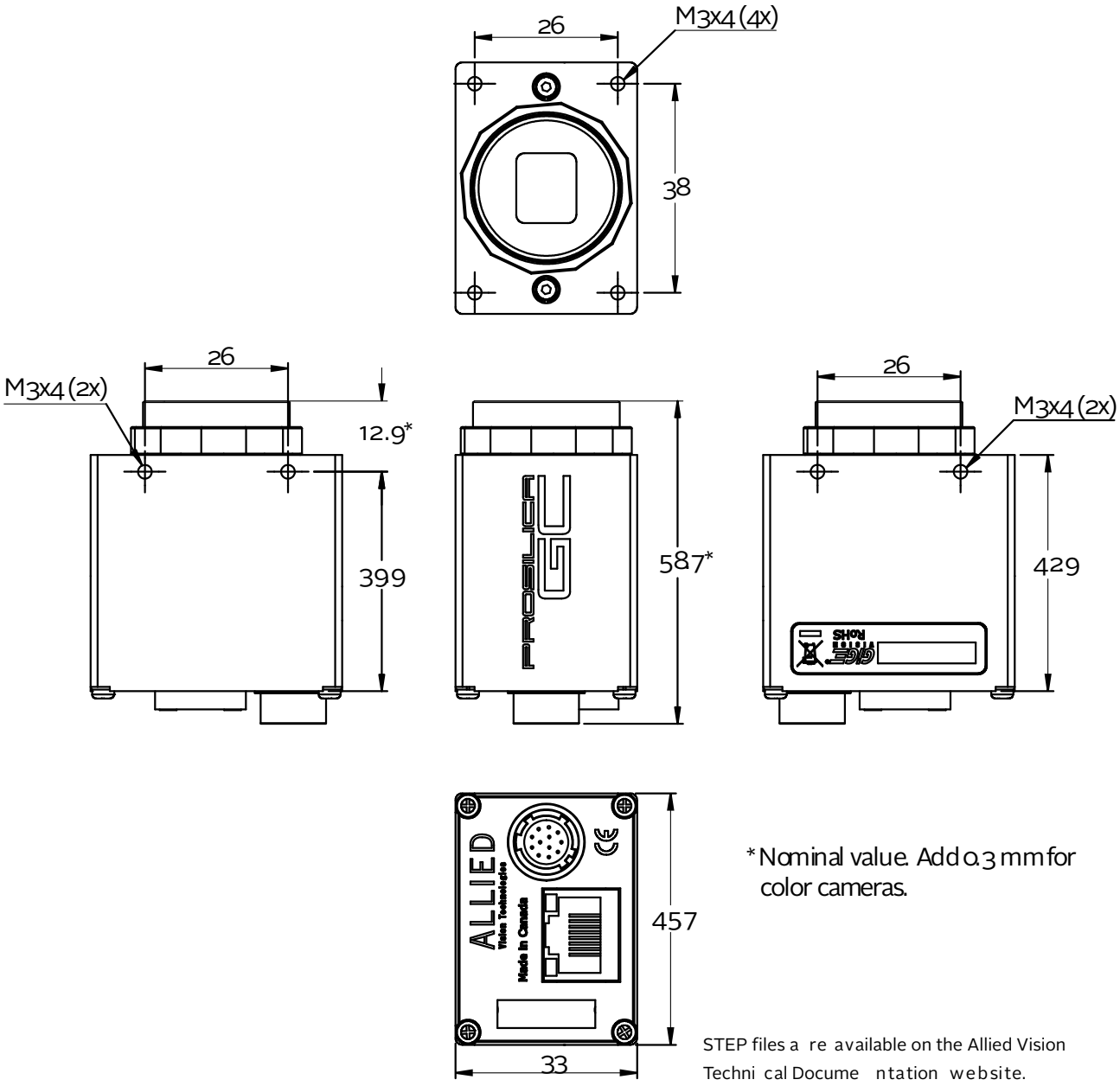
Technical drawing



*Nominal value. Add 0.3 mm for color cameras.

STEP files are available on the Allied Vision Technical Documentation website.

Applications

Prosilica GC650 is ideal for a wide range of applications including:

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