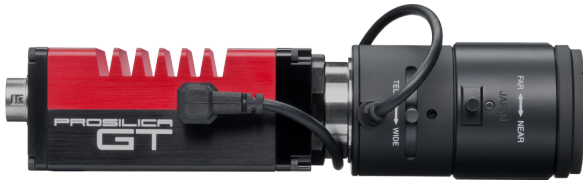Allied Vision

Prosilica GT
1600

- -20° C to +65° C (ambient temperature)
- PoE
- IEEE 1588 PTP
- Trigger over Ethernet
- Auto iris

Engineered for every environment

High-resolution cameras for demanding applications

Prosilica GT 1600 with Sony ICX274 runs 25.8 frames per second at 2.0 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	1620 (H) × 1220 (V)
Sensor	Sony ICX274
Sensor type	CCD Progressive
Shutter mode	GS (Global shutter)
Sensor size	Type 1/1.8
Pixel size	4.4 µm × 4.4 µm
Lens mounts (available)	C-Mount, CS-Mount, F-Mount, M42-Mount
Max. frame rate at full resolution	25.8 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	47 %
Temporal dark noise	8.8 e^-
Saturation capacity	4900 e^-
Dynamic range	54.3 dB
Absolute sensitivity threshold	9.3 e^-

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
Raw pixel formats	BayerRG8, BayerRG12, 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 +65 °C ambient (without condensation)
Power requirements (DC)	7 to 25 VDC AUX or 802.3at Type 1 PoE
Power consumption	3.3 W at 12 VDC; 4.0 W PoE
Mass	211 g
Body dimensions (L × W × H in mm)	86 × 53.3 × 33 (including connectors)

Quantum efficiency
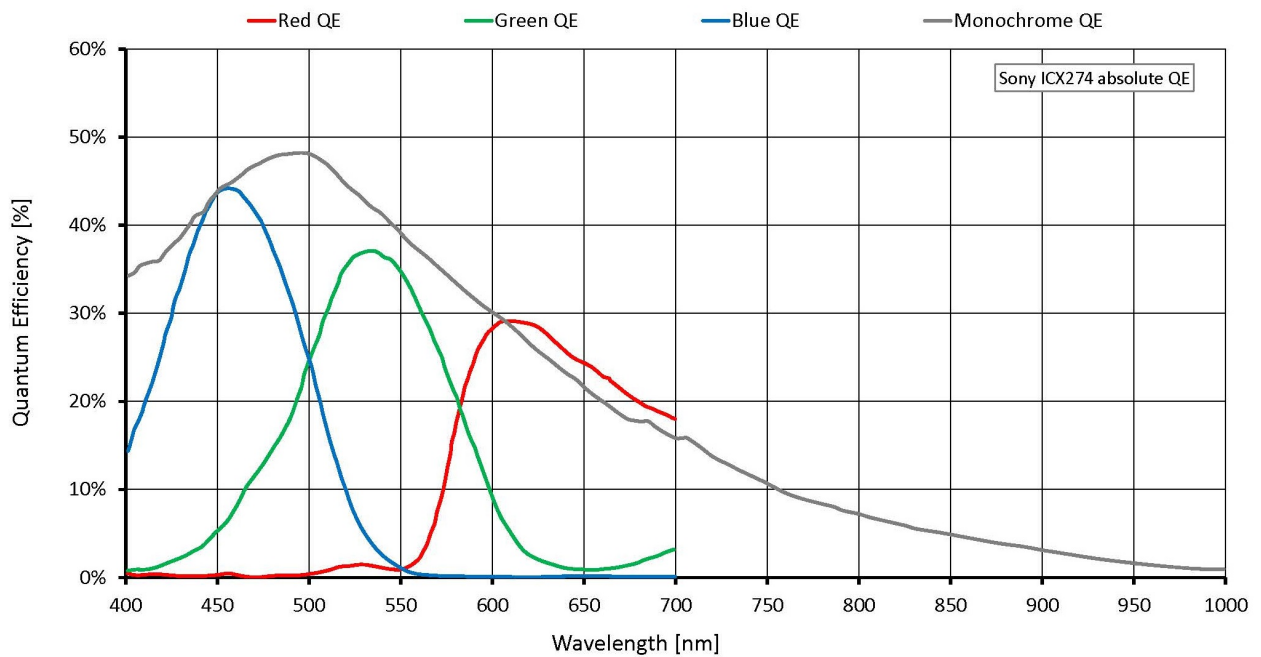
Features

Image control: Auto

- Auto exposure
- Auto gain
- Auto white balance (color models)

Image control: Other

- Binning
- Color transformation (incl. hue, saturation; color models)
- Decimation
- Gamma
- LUT (look-up table)
- ROI (region of interest)

Camera control

- Acquisition frame rate
- Auto iris
- Bandwidth control
- Event channel
- Firmware update in the field
- I/O and trigger control
- Image chunk data
- PTP (IEEE 1588 Precision Time Protocol)
- Stream hold
- Temperature monitoring
- ToE (trigger over Ethernet, action commands)
- User sets

Technical drawing
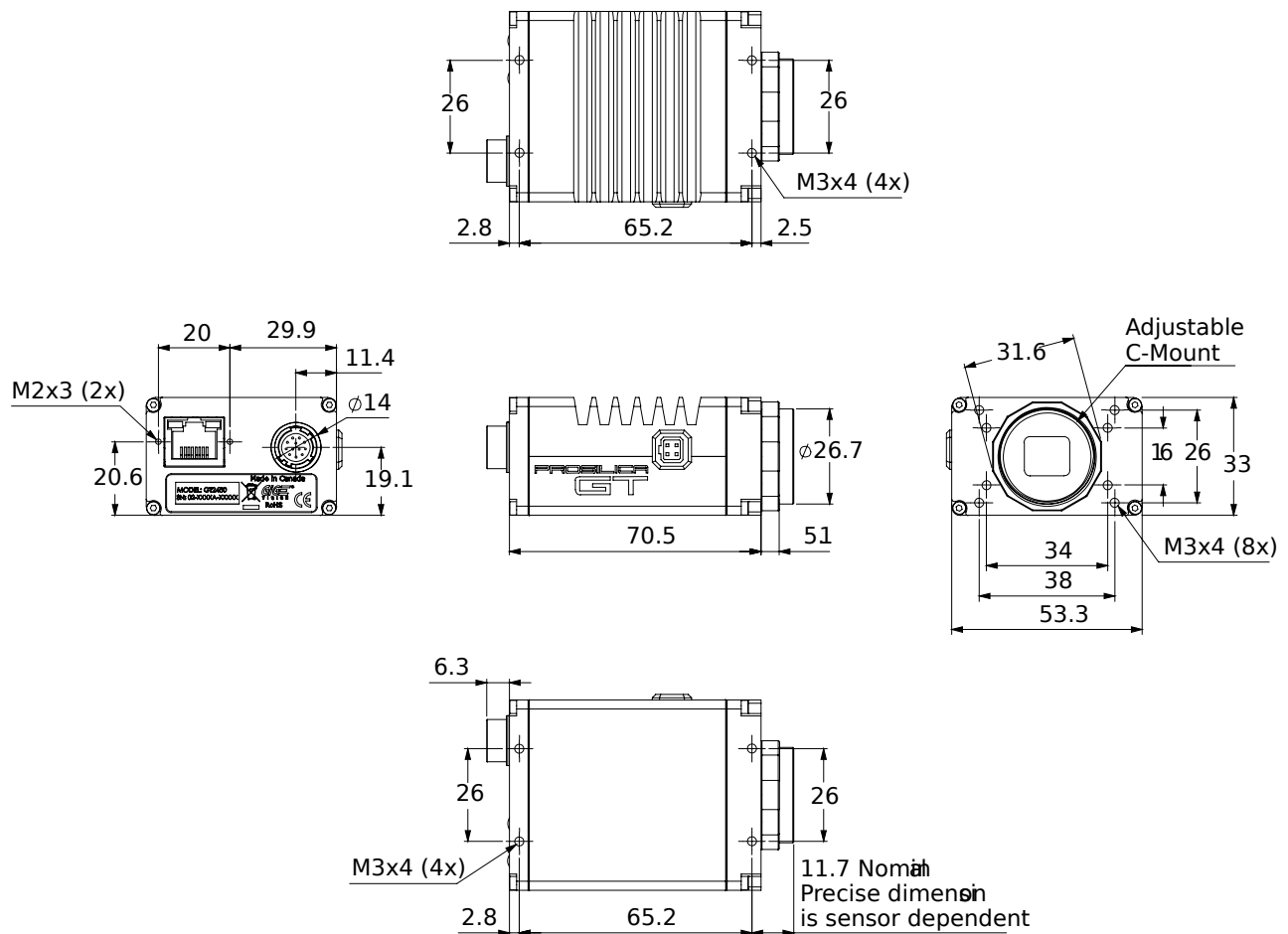
Applications

Prosilica GT1600 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