Allied Vision

GiGE VISION

Prosilica GT
5120NIR



- -20° C to +50° C (ambient temperature)
- NIR enhanced sensor
- PoE
- IEEE 1588 PTP
- Trigger over Ethernet
- Auto iris

Engineered for every environment

High-resolution cameras for demanding applications

Prosilica GT 5120NIR with ON Semi PYTHON 25K NIR runs 4.59 frames per second at 26.2 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 X 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	5120 (H) × 5120 (V)
Sensor	ON Semi PYTHON 25K NIR
Sensor type	CMOS
Shutter mode	GS (Global shutter)
Sensor size	Type APS-H
Pixel size	4.5 µm × 4.5 µm
Lens mounts (available)	F-Mount
Max. frame rate at full resolution	4.59 fps
ADC	10 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 NIR models measured without optical filter.

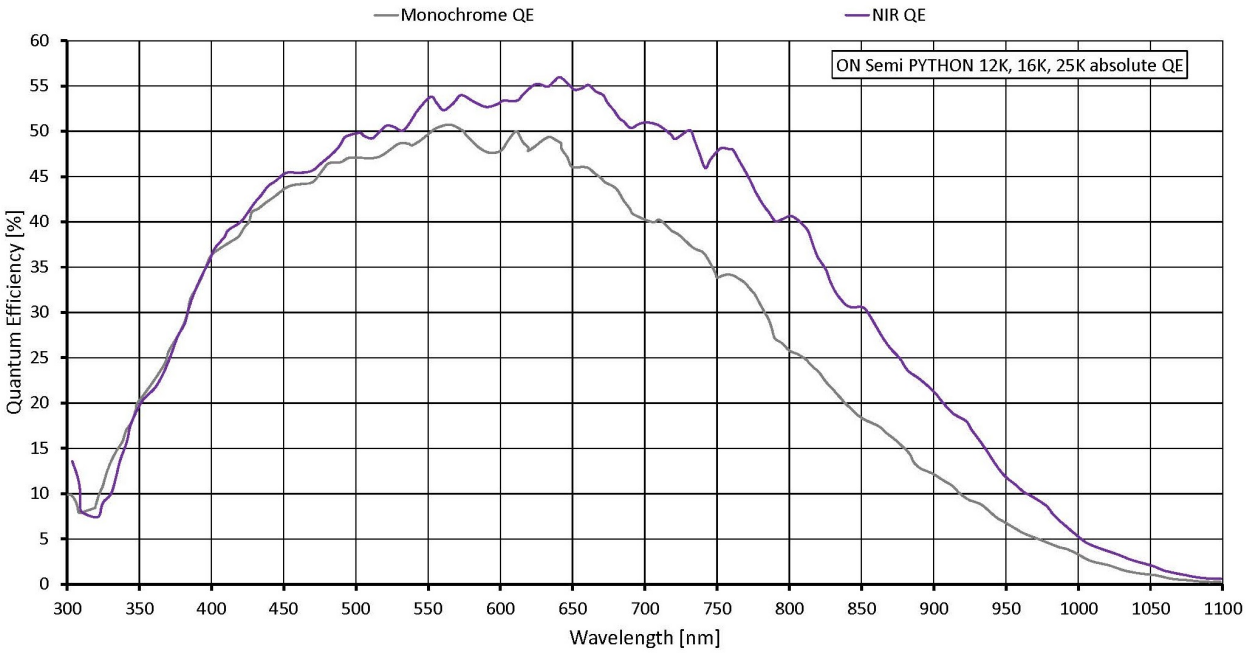
Quantum efficiency at 529 nm	55 %
Quantum efficiency at 850 nm	33 %
Temporal dark noise	25.9 e^-
Saturation capacity	8000 e^-
Dynamic range	49.6 dB
Absolute sensitivity threshold	26.5 e^-

Output	
Bit depth	10-bit
Monochrome pixel formats	Mono8, Mono10

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 +50 °C ambient (without condensation)
Power requirements (DC)	7 to 25 VDC AUX or IEEE 802.3at Type 1 PoE
Power consumption	External power: 5.02 W at 12 VDC | Power over Ethernet: 6.3 W
Mass	372 g
Body dimensions (L × W × H in mm)	96 × 66 × 53.3 (including connectors)

Quantum efficiency



Features

Image control: Auto

- Auto exposure
- Auto gain

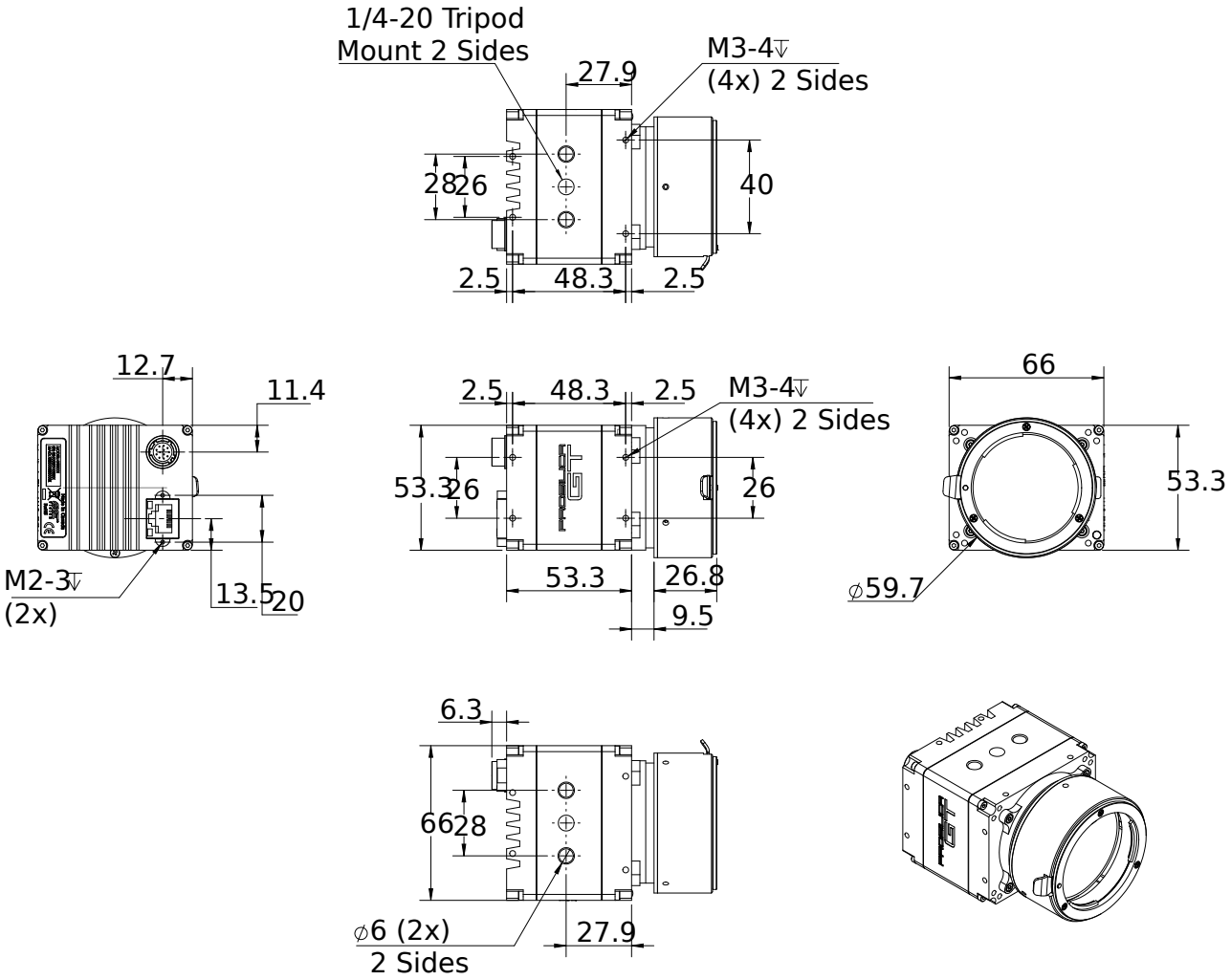
Image control: Other

- Black level
- Decimation
- DPC (defect pixel correction)
- FPNC (fixed pattern noise correction)
- Gamma
- LUT (look-up table)
- ROI (region of interest)

Camera control

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

Technical drawing



Applications

Prosilica GT5120NIR is ideal for a wide range of applications including:

- Outdoor imaging
- Intelligent Traffic Systems
- Public security and surveillance
- Industrial inspection (for example food, bottles, recycling, and labels)
- Microscopy
- Military and space applications
- Medical and healthcare
- Other machine vision applications