

Prosilica GE

1650



- 32 fps @ full resolution
- ON Semi KAI-2020 sensor
- Galvanically isolated I/O
- Various lens mount options

2 Megapixel CCD camera, GigE Vision interface, 32 frames per second

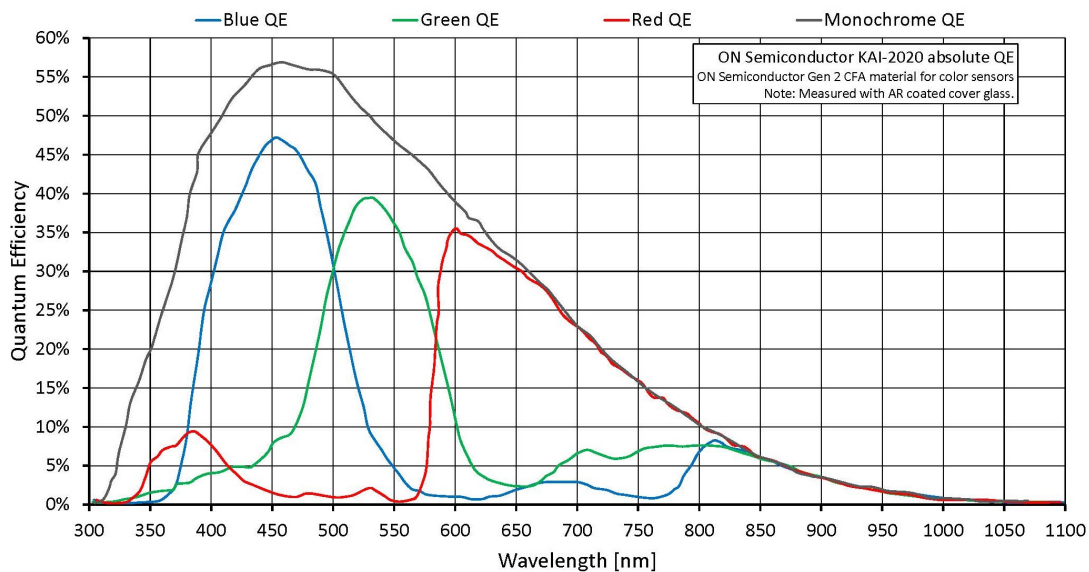
Prosilica GE1650 is a high-resolution CCD camera with Gigabit Ethernet interface (GigE Vision). This camera incorporates a high-quality ON Semiconductor KAI-2020 CCD sensor providing excellent monochrome and color image quality in 4:3 format. At full resolution, this camera has a frame rate of 32 frames 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 an IRC30 IR cut filter.

Specifications

Prosilica GE	1650
Interface	IEEE 802.3 1000baseT
Resolution	1600 (H) × 1200 (V)
Sensor	ON Semi KAI-2020
Sensor type	CCD Progressive
Sensor size	Type 1
Pixel size	7.4 μm × 7.4 μm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	32 fps
ADC	12 Bit
Image buffer (RAM)	32 MByte
Output	
Bit depth	8/12 Bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed
YUV color pixel formats	YUV411Packed

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RGB color pixel formats	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed, RGB12Packed
Raw pixel formats	BayerGR8, BayerGR12, BayerGR12Packed
General purpose inputs/outputs (GPIOs)	
TTL I/Os	1 input, 3 outputs (with galvanic isolation)
RS232	1
Operating conditions/dimensions	
Operating temperature	0 °C to +50 °C ambient (without condensation)
Power requirements (DC)	5 to 24 VDC
Power consumption	5 W at 12 VDC
Mass	169 g
Body dimensions (L × W × H in mm)	80 × 51 × 39 (including connectors)
Regulations	2011/65/EU, including amendment 2015/863/EU (RoHS)

Quantum efficiency



Features

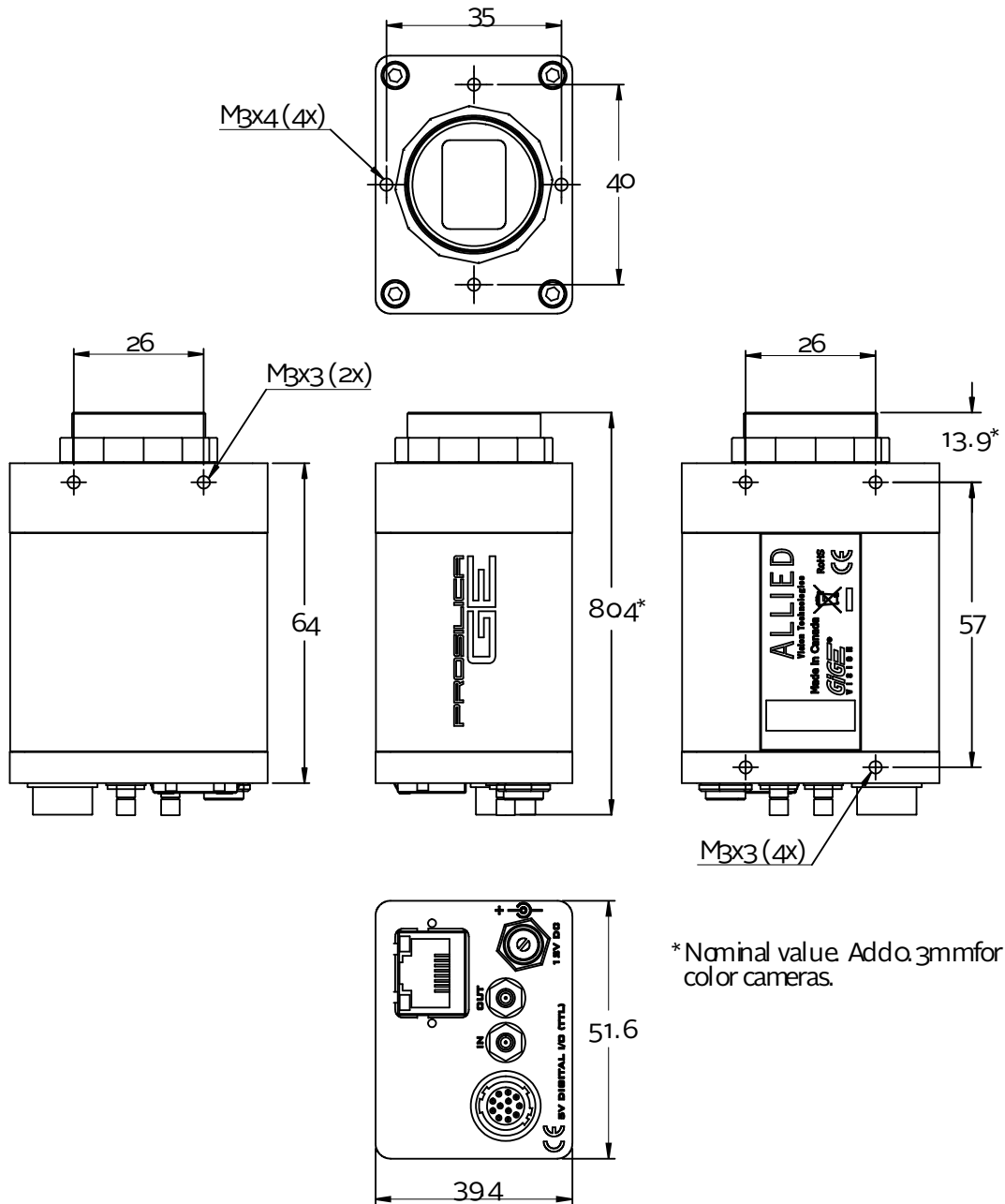
Prosilica GE1650 features include:

- Region of interest (ROI), DSP subregion (selectable ROI for auto features)
- Binning (Sum)



- Auto gain (manual gain control: 0 to 34 dB)
- Auto exposure (manual exposure controls: 50 μ s to 53.7 s)
- Auto white balance
- StreamBytesPerSecond (bandwidth control)
- Stream hold
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Global shutter (digital shutter)
- Recorder and Multiframe acquisition modes
- Event channel
- Image chunk data
- Storable user sets

Technical drawing



* Nominal value Add 0.3mm for color cameras.



Applications

Prosilica GE1650 is ideal for a wide range of applications including:

- Industrial inspection
- Machine vision
- LCD panel inspection
- Medical imaging
- Ophthalmology
- Aeronautical and aerospace
- Public security
- Surveillance
- Traffic imaging
- OEM applications