

Prosilica GE

1650



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

Description

2 megapixel CCD camera with GigE Vision interface, 32 frames per second

Prosilica#GE1650/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.

Options:

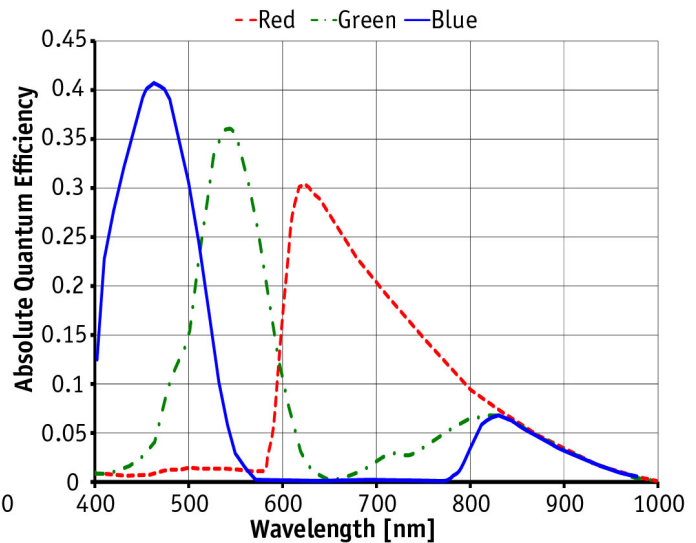
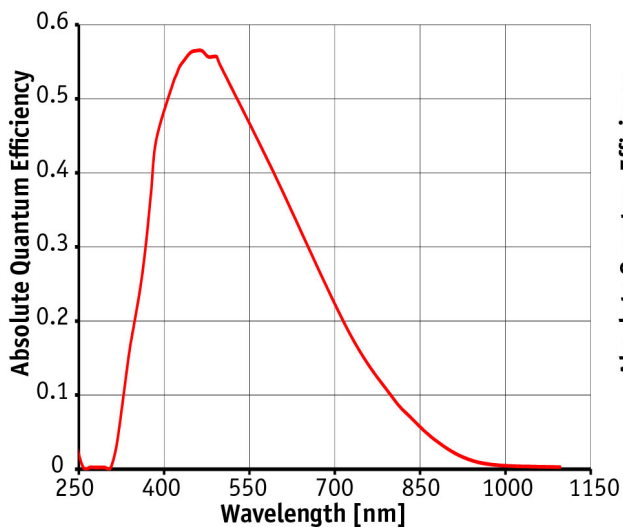
- Optical filters (IR cut filter/Protection glass)
- Fixed cover glass without microlenses, taped cover glass with or without microlenses, quartz glass without microlenses
- Various lens mounts

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

Specifications

Prosilica GE	1650
Interface	IEEE 802.3 1000baseT
Resolution	1600 (H) × 1200 (V)
Sensor	OnSemi KAI-2020
Sensor type	CCD Progressive
Cell size	7.4 μm x 7.4 μm
Lens mount	C-Mount
Max frame rate at full resolution	32 fps
ADC	12 bit
Image buffer (RAM)	32 MByte
Output	

Prosilica GE	1650
Bit depth	8/12 bit
Mono modes	Mono8, Mono12, Mono12Packed
Color modes RGB	RGB8Packed, BGR8Packed, RGBA8Packed, BGRA8Packed, RGB12Packed
Raw modes	BayerGR8, BayerGR12, BayerGR12Packed
General purpose inputs/outputs (GPIOs)	
TTL I/Os	1 input, 3 outputs (with galvanic isolation)
RS-232	1
Operating conditions/dimensions	
Operating temperature	0 °C to +50 °C ambient (without condensation)
Power requirements (DC)	5 to 24 VDC
Power consumption (@12 V)	5 W
Mass	169 g
Body dimensions (L × W × H in mm)	80 × 51 × 39 (including connectors)
Regulations	CE, RoHS, REACH, WEEE, FCC, ICES



Features

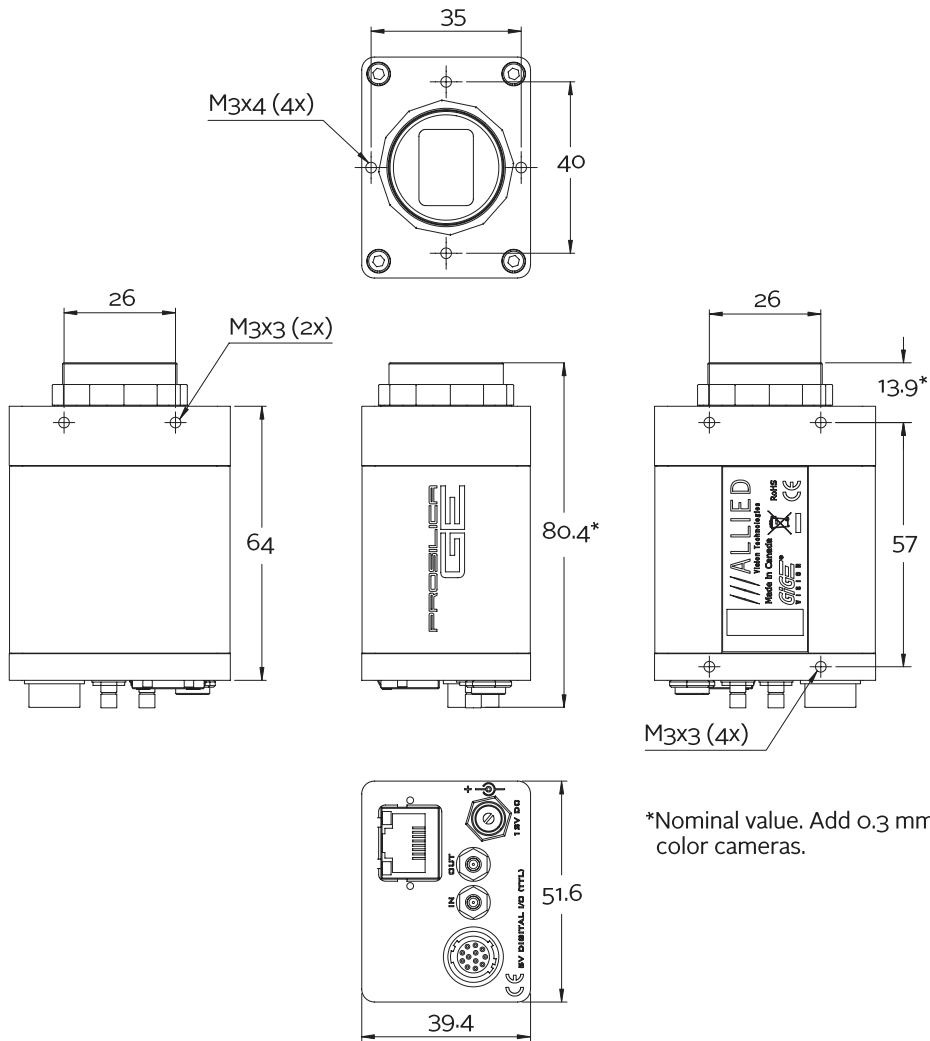
Prosilica GE1650/GE1650C features include:

- Region of interest (ROI), DSP subregion (selectable ROI for auto features)
- Binning
- Auto gain (manual gain control: 0 to 34 dB)



- Auto exposure (manual exposure controls: 50 #s to 53.7 s)
- Auto white balance
- StreamBytesPerSecond (easy 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 0.3 mm for color cameras.



Applications

Prosilica#GE1650/GE1650C 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