



# Bigeye G

## G-1100 Cool

- Outstanding signal-to-noise ratio
- Exposure time up to more than 4200 s
- 10 Megapixel resolution

## Description

11 Megapixel CCD camera, cooled OnSemi 35 mm sensor

The Bigeye G-1100B Cool is a high-resolution cooled CCD camera. It includes a sensitive 35 mm OnSemi sensor. Due to the cooling to 0 °C, this camera features high-resolution imaging with outstanding signal-to-noise ratio.

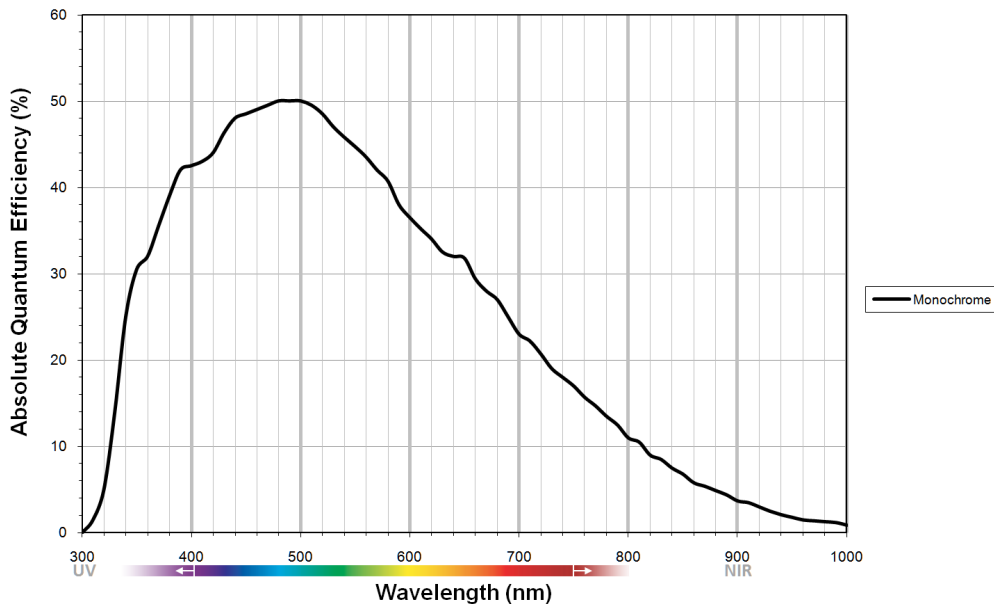
Benefits and features:

- GigE Vision, multi-functional, user-configurable I/O interface
- OnSemi KAI-11002 sensor, 4024 x 2680 pixels, quantum efficiency @530 nm: 59%, peltier cooled to 0 °C, Exposure time up to 4292 s ( $\approx$  71 min)
- Reliable operation under rough industrial conditions

## Specifications

Bigeye G	G-1100 Cool
Interface	IEEE 802.3 1000baseT
Resolution	4024 (H) × 2680 (V)
Sensor	ON Semi KAI-11002
Sensor type	CCD Progressive
Sensor size	Type 35 mm
Pixel size	9 $\mu$ m × 9 $\mu$ m
Cooling temperature	0 °C
Temporal dark noise	40 e-
Dark current	0.010 e-/pixel/s
Saturation capacity	54000 e-

<b>Bigeye G</b>	<b>G-1100 Cool</b>
Dynamic range	63 dB
Lens mount (default)	F-Mount
Max. frame rate at full resolution	1.58 fps
ADC	14 bit
Image buffer (RAM)	32 MByte
<b>Output</b>	
Bit depth	12 bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed
<b>General purpose inputs/outputs (GPIOs)</b>	
TTL I/Os	1/1
Opto-isolated I/Os	3/3
RS232	2
<b>Operating conditions/dimensions</b>	
Operating temperature	0 °C to 35 °C
Power consumption	max. <36 W @ 12 VDC, typ. <18 W @ 12 VDC
Mass	1320 g
Body dimensions (L × W × H in mm)	132.8 × 90 × 99 (including connectors)
Regulations	CE: 2014/30/EU (EMC), 2011/65/EU (RoHS)



## Features

- Gain (6 dB)

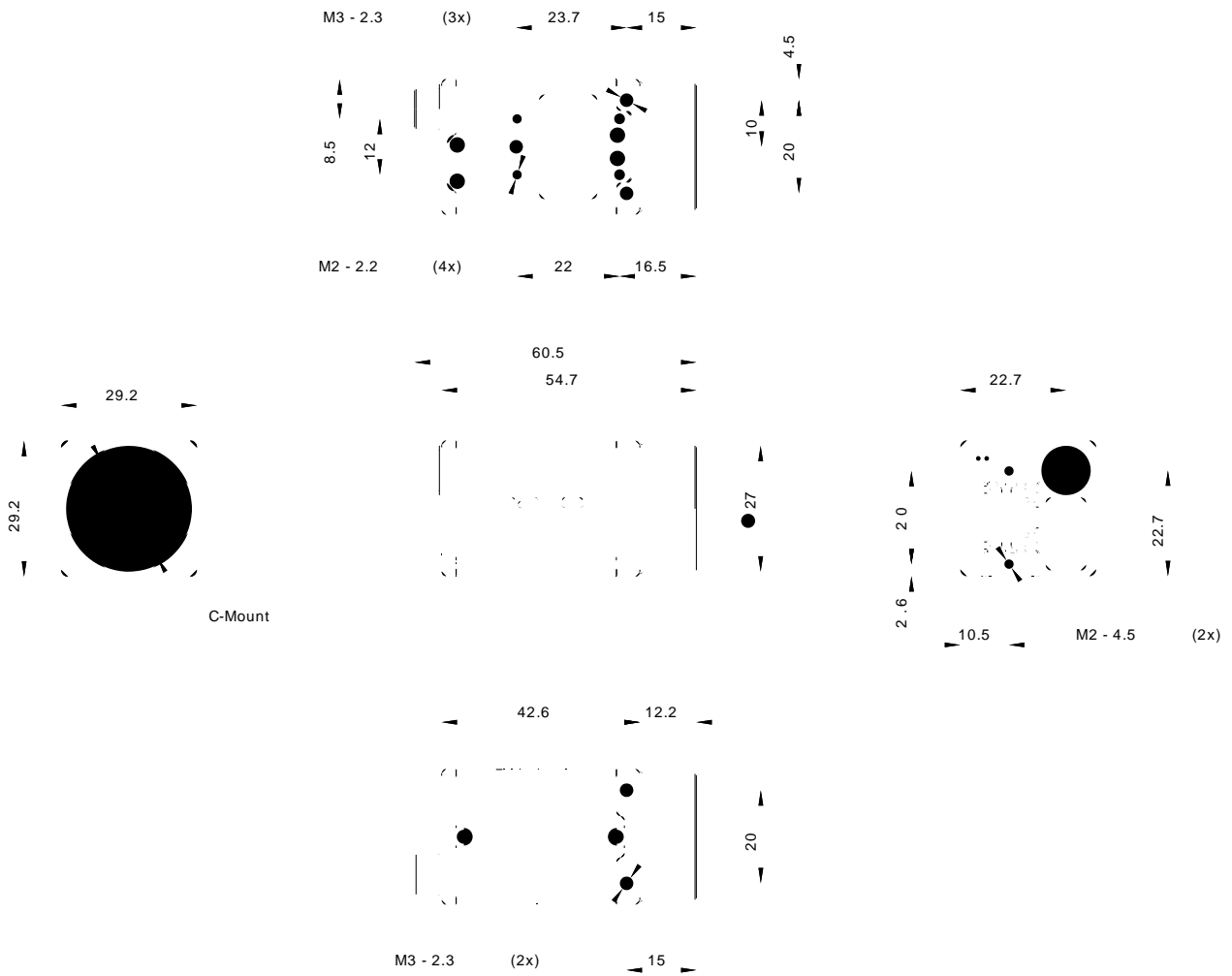


- Exposure time 1394  $\mu$ s to  $\approx$  71 minutes
- Binning (1x2, 2x1, 2x2)
- Gamma (0.45, 0.5, 0.7)
- Three look-up tables (LUTs)
- Five storable user sets

#### **Easy integration**

The Bigeye G-1100B Cool can be easily integrated into your application, since it is GigE Vision compliant and compatible with Allied Vision's GigE SDKs. Additionally, this camera can be used with numerous third-party software solutions.

## Technical drawing





## Applications

The Bigeye G-1100B Cool is the perfect choice for image acquisition with high resolution and low noise. Long exposure times with the cooled sensor produce images with outstanding image quality.

Typical applications:

- Low-noise imaging (industrial and scientific imaging)
- Image acquisition with long exposure times
- Microscopy with high resolution
- Fluorescence microscopy
- Gel electrophoresis, DNA documentation
- Non-destructive evaluation of photosensitive objects
- Astronomy