



Bigeye

G-1100 Cool

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

For demanding applications for both the visible spectrum and the NIR spectrum

Low noise cooled CCD cameras, up to 11 MP, prime quality

Bigeye G-1100 Cool with ON Semi KAI-11002 runs 1.58 frames per second at 10.8 MP resolution.

The Bigeye is a Peltier cooled camera series for demanding applications. It is equipped with highly sensitive CCD sensors from Sony and OnSemi. Bigeye cameras are designed for low-noise image acquisition even at long exposure times. The compact, robust metal housing of all Bigeye cameras has a hermetically sealed vacuum section, ensuring maintenance-free operation for many years even under rough conditions. Moreover, two NIR enhanced camera versions are available (with ICX285 and KAF-6303E).

- Dual level Peltier cooling with 5 years warranty against condensation
- Low dark current even at very long exposure times
- Superior signal/noise ratio
- Robust alloy metal housing for industrial use
- Secure operation due to screw locks at all connectors
- Multi-functional, user-configurable I/O interface
- Support of AVT's GigE software development kits (SDKs)

Specifications

Interface	IEEE 802.3 1000BASE-T
Resolution	4024 (H) × 2680 (V)
Sensor	ON Semi KAI-11002
Sensor type	CCD Progressive
Sensor size	Type 35 mm
Pixel size	9 µm × 9 µm
Lens mount (default)	F-Mount
Max. frame rate at full resolution	1.58 fps
ADC	14 Bit
Image buffer (RAM)	32 MByte
Cooling temperature	0 °C
Dark current	0.010 e-/pixel/s
Temporal dark noise	40 e-
Saturation capacity	54000 e-
Dynamic range	63 dB

Output

Bit depth	12-bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed

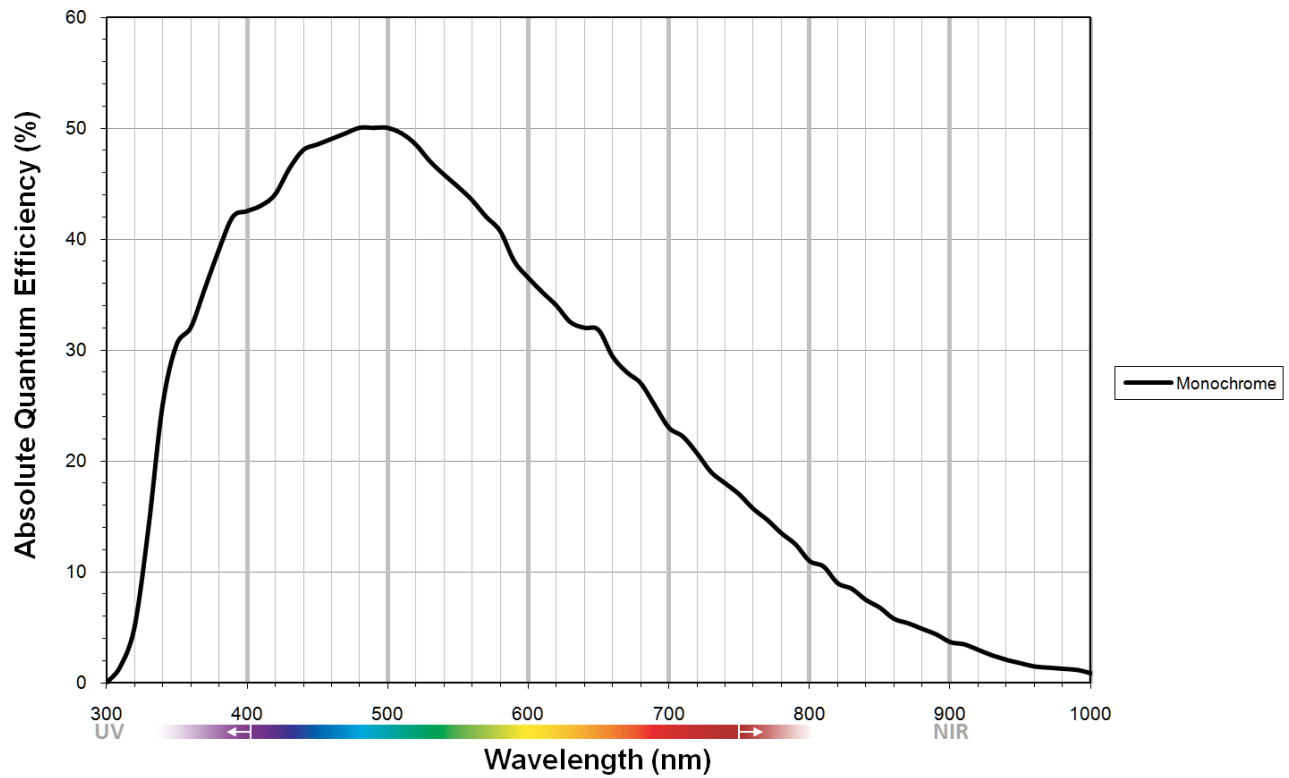
General purpose inputs/outputs (GPIOs)

TTL I/Os	1/1
Opto-isolated I/Os	3/3
RS232	2

Operating conditions/dimensions

Operating temperature	0 °C to 35 °C
Power consumption	max. <36 W at 12 VDC, typ. <18 W at 12 VDC
Mass	1320 g
Body dimensions (L × W × H in mm)	132.8 × 90 × 99 (including connectors)

Quantum efficiency

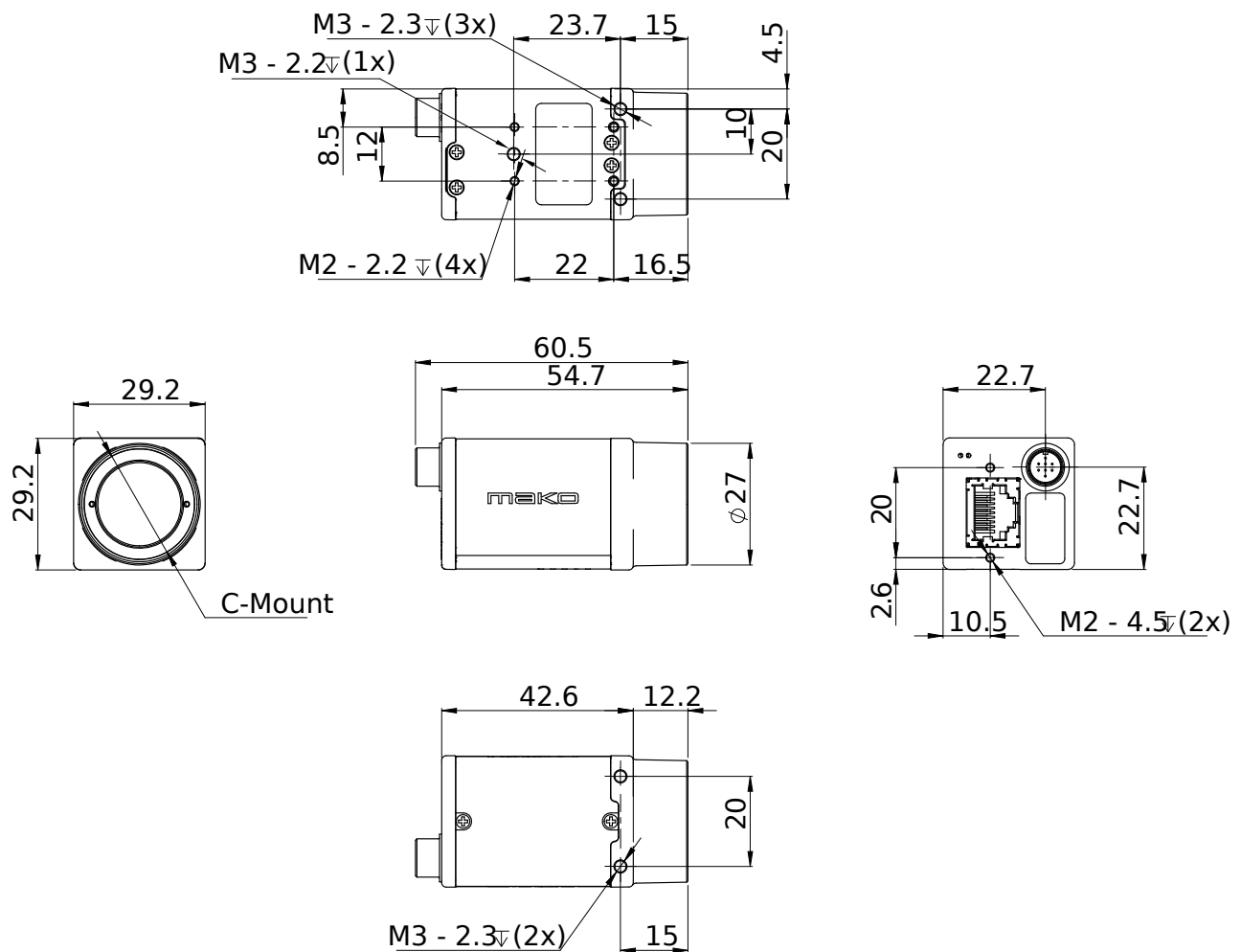


Features

- Gain (6 dB)
- Exposure time 1394 μ 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