



# Bigeye

## G-132 Cool

- Exposure time up to more than 4200 s
- Excellent quantum efficiency

### 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-132 Cool with Sony ICX285 runs 12.5 frames per second at 1.3 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	1280 (H) × 1024 (V)
Sensor	Sony ICX285
Sensor type	CCD Progressive
Sensor size	Type 2/3
Pixel size	6.45 µm × 6.45 µm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	12.5 fps
ADC	12 Bit
Image buffer (RAM)	32 MByte
Cooling temperature	-20 °C
Dark current	0.003 e-/pixel/s
Temporal dark noise	8 e-
Saturation capacity	13000 e-
Dynamic range	65 dB

### Output

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

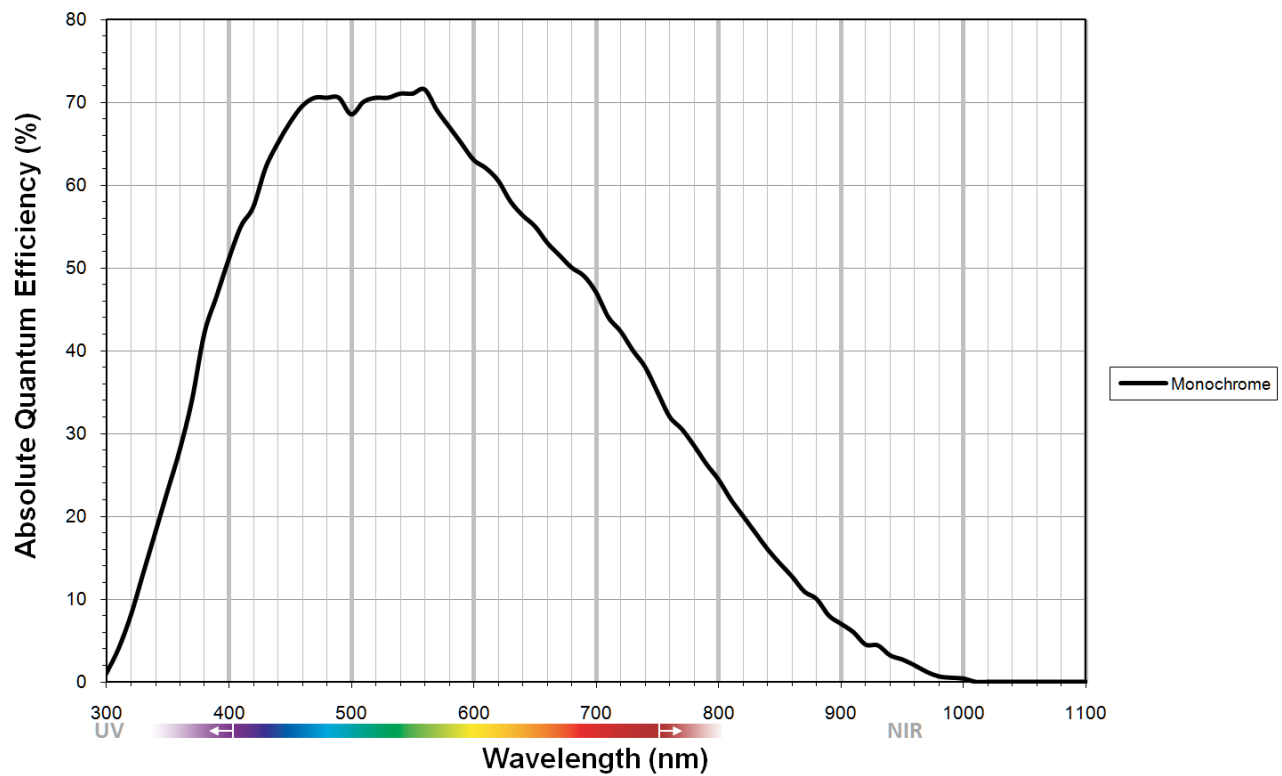
### General purpose inputs/outputs (GPIOs)

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	1270 g
Body dimensions (L × W × H in mm)	100.8 × 90 × 99 (including connectors)

## Quantum efficiency



## Features

- Gain (6 dB)
- Binning (2x1, 2x2)
- Exposure time 80077  $\mu$ s to 4294 seconds (  $\approx$  71 min)
- Three look-up tables (LUTs)
- Gamma (0.45, 0.5, 0.7)
- Five storable user sets

**Easy integration** The Bigeye G-132B 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.

## Applications

The Bigeye G-132B Cool is a prime quality CCD camera with dual level Peltier cooling. It is best suited for applications with the highest demands on image quality, especially under low-light conditions.

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