



# Bigeye G-283 Cool



## Description

### Cooled CCD camera with ICX674

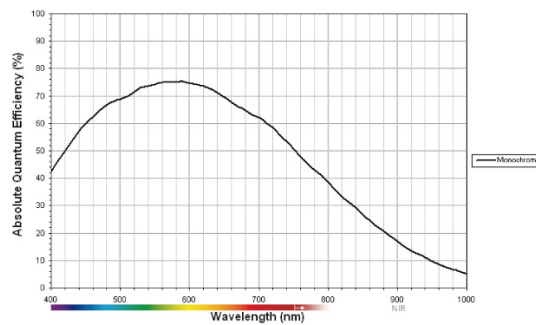
The Bigeye G-283B Cool is a Peltier cooled low-noise camera for the highest demands. It is made for scientific applications with low light conditions requiring long exposure times. The camera features an excellent dynamic range and an outstanding signal-to-noise ratio.

- Sony ICX674 EXview HAD II sensor, 1928 x 1452 pixels
- Quantum efficiency @530 nm: 73%
- Exposure time up to 4292 s ( $\approx$  71 min)
- Multi-functional, user-configurable I/O interface
- GigE Vision
- Reliable operation under rough industrial conditions

## Specifications

Bigeye		G-283 Cool	
Interface	IEEE 802.3 1000baseT		
Resolution	1928 x 1452		
Sensor	Sony ICX674		
Sensor type	CCD Progressive		
Sensor size	Type 2/3		
Cell size	4.54 µm		
Cooling temperature	-10 °C		
Dark noise	8 e-		
Dark current	0.020 e-/pixel/s		
Saturation capacity	18000 e-		
Dynamic range	67 dB		
Lens mount	C-Mount		
Max frame rate at full resolution	5.7 fps		
A/D	14 bit		
On-board FIFO	32 MB		
	Output		
Bit depth	14 bit		
Mono modes	Mono8, Mono12Packed, Mono14		
	General purpose inputs/outputs (GPIOs)		
TTL I/Os	1/1		
Opto-coupled I/Os	3/3		
RS-232	2		
	Operating conditions/Dimensions		
Operating temperature	0 °C ... 35 °C		
Power consumption (12 V)	max. <36 W, typ. <18 W		
Mass	1250 g		
Body Dimensions (L x W x H in mm)	100.8 x 90 x 99 mm incl. connectors, w/o lens		
Regulations	CE, RoHS (2002/95/EC)		

[Download technical drawing \(click here\)](#)



## Smart features

- Gain (6 dB)
- Exposure time 9083  $\mu$ s to 4294 seconds ( $\approx$  71 min)
- Binning (2x1, 2x2)
- Gamma 0.45, 0.5, 0.7
- Three look-up tables (LUTs)
- Five storable user sets

## Easy integration

The Bigeye G-283B Cool can be easily integrated into your application, since it is GigE Vision compliant and compatible with AVT's GigE SDKs. Additionally, this camera can be used with numerous third-party software solutions.

## Applications

The Bigeye G-283B Cool is a low noise CCD camera with an excellent signal/noise ratio. It is best suited for applications with the highest demands on image quality. Thanks to the Peltier cooling, it is ideal for image acquisition with long exposure times.

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