



## Bigeye G-283 Cool



### Description

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### Cooled CCD camera with ICX674

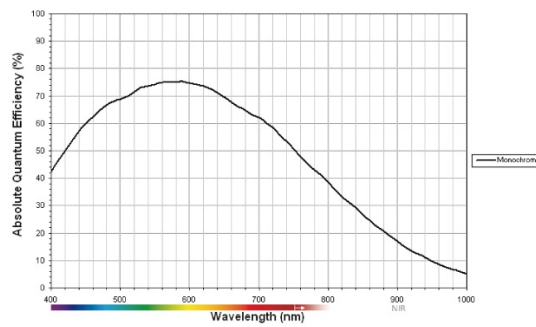
The Bigeye G-283B Cool is a Peltier cooled low-noise camera for the highest demands. It is made for scientific applications with low light conditions requiring long exposure times. The camera features an excellent dynamic range and an outstanding signal-to-noise ratio.

- 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