



Bigeye G

G-283 Cool

- Specially made for scientific applications
- Exposure time up to more than 4200 s

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.

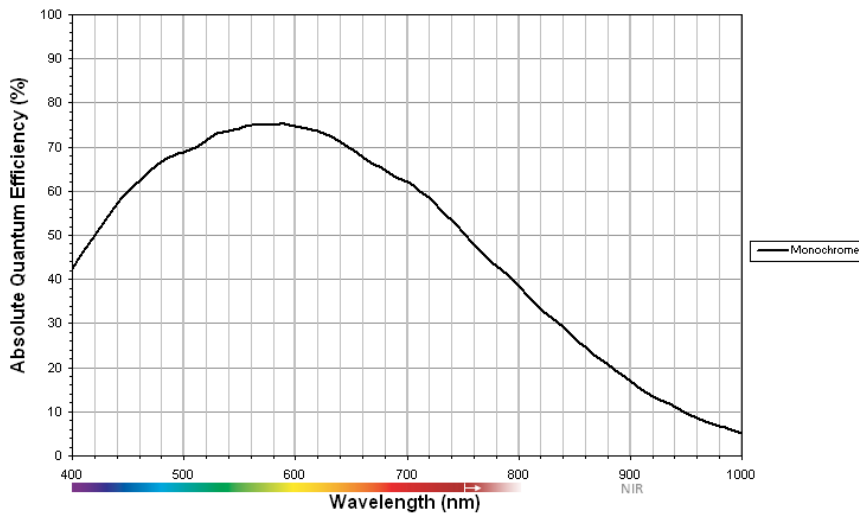
- GigE Vision, multi-functional, user-configurable I/O interface
- Sony ICX674 EXview HAD II sensor, 1928 x 1452 pixels, quantum efficiency @530 nm: 73%, exposure time up to 4292 s (\approx 71 min)
- Reliable operation under rough industrial conditions

Specifications

Bigeye G	G-283 Cool
Interface	IEEE 802.3 1000baseT
Resolution	1928 × 1452
Sensor	Sony ICX674
Sensor type	CCD Progressive
Sensor size	Type 2/3
Cell size	4.54 μ m
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

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Max frame rate at full resolution	5.7 fps
ADC	14 bit
On-board FIFO	32 Mbyte
Output	
Bit depth	14 bit
Mono modes	Mono8, Mono12Packed, Mono14
General purpose inputs/outputs (GPIOs)	
TTL I/Os	1
Opto-isolated 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 × W × H in mm)	100.8 × 90 × 99 mm incl. connectors, w/o lens
Regulations	CE, RoHS (2011/65/EU), WEEE, FCC Class B

Spectral sensitivity



Features

- Gain (6 dB)
- Exposure time 9083 μ 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