



Bigeye G-629 Cool

GiGE
VISION

Description



The Machine Vision and Imaging Specialists

Perth: +61 (08) 9242 5411 **Sydney:** +61 (02) 9979 2599

Melbourne: +61 (03) 9350 7377

Email: adept@adept.net.au

Web: <http://www.adept.net.au>

Cooled 6 Megapixel full frame CCD camera

The Bigeye G-629B Cool is a cooled CCD camera with 6 Megapixels resolution and a sensitive full frame sensor. This camera is optimal for applications with low-light conditions requiring long exposure times.

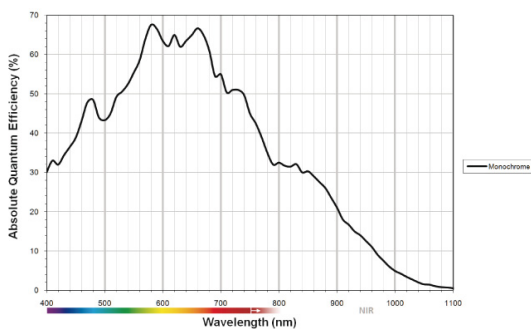
The camera can operate with its internal long life electromechanical shutter or with external impulse light sources and constantly opened shutter.

- Truesense (Kodak) KAF 6303E sensor, 3072 x 2048 pixels
- Cooled to +5 °C (stabilized)
- Quantum efficiency @530 nm: 49%
- 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-629 Cool	
Interface	IEEE 802.3 1000baseT		
Resolution	3072 x 2048		
Sensor	Kodak KAF-6303E		
Sensor type	CCD Progressive		
Sensor size	Type 35 mm		
Cell size	9.0 x 9.0 μm		
Cooling temperature	+5 °C		
Dark noise	21 e-		
Dark current	0.008 e-/pixel/s		
Saturation capacity	56000 e-		
Dynamic range	69 dB		
Lens mount	F-Mount		
Max frame rate at full resolution	0.67 fps		
A/D	14 bit		
On-board FIFO	32 MB		
	Output		
Bit depth	14 bit		
Mono modes	Mono8, Mono12, 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. <37.2 W, typ. <18 W		
Mass	1390 g		
Body Dimensions (L x W x H in mm)	131.55 x 90 x 109 incl. connectors, w/o lens		
Regulations	CE, RoHS (2002/95/EC)		

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



Smart features

- Gain (6 dB)
- Exposure time 50688 μ s to \approx 71 minutes
- Binning (2x1, 2x2)
- Gamma (0.45, 0.5, 0.7)
- Three look-up tables (LUTs)
- Five storable user sets

Easy integration

The Bigeye G-629B 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-629B Cool is a low-noise CCD camera with a very high dynamic range. It is best suited for applications with the highest demands on image quality. Due to the Peltier cooling, the camera 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