



# Bigeye G-629 NIR Cool

**GiGE**  
VISION

## Description



**The Machine Vision and Imaging Specialists**

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### Cooled 6 Megapixel camera, visible and NIR spectrum

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.

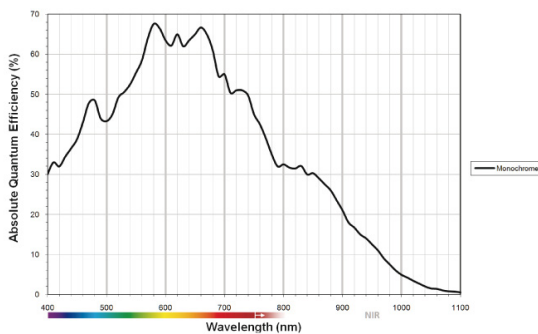
The camera can operate with its internal long life electromechanical shutter or with external impulse light sources and constantly opened shutter.

- 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 NIR 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	tbd		
Dark current	tbd		
Saturation capacity	tbd		
Dynamic range	tbd		
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	1460 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  $\mu$ 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