



# Bigeye P

## P-629

- High quantum efficiency
- Sensitivity up to 1  $\mu\text{m}$  wavelength
- 6 Megapixel Full Frame sensor

## Description

### Cooled 6 Megapixel Full Frame CCD camera

The Bigeye P-629B is a cooled CCD camera with a sensitive full-frame sensor. The camera is distinguished by a high quantum efficiency both in the visible and in the NIR spectrum up to 1  $\mu\text{m}$  wavelength. The sensor temperature is stabilized to +5°C, this ensures low noise and a constant dark current for high-precision image acquisition. The camera can operate with its internal long-live electromechanical shutter, or with external impulse light sources and constantly opened shutter.

Benefits and features:

- 6 Megapixel OnSemi Full Frame CCD sensor, cooled to +5°C (stabilized), high QE (quantum efficiency) in the visible and NIR range, built-in electromechanical long-live shutter
- 14-bit signal processing and output

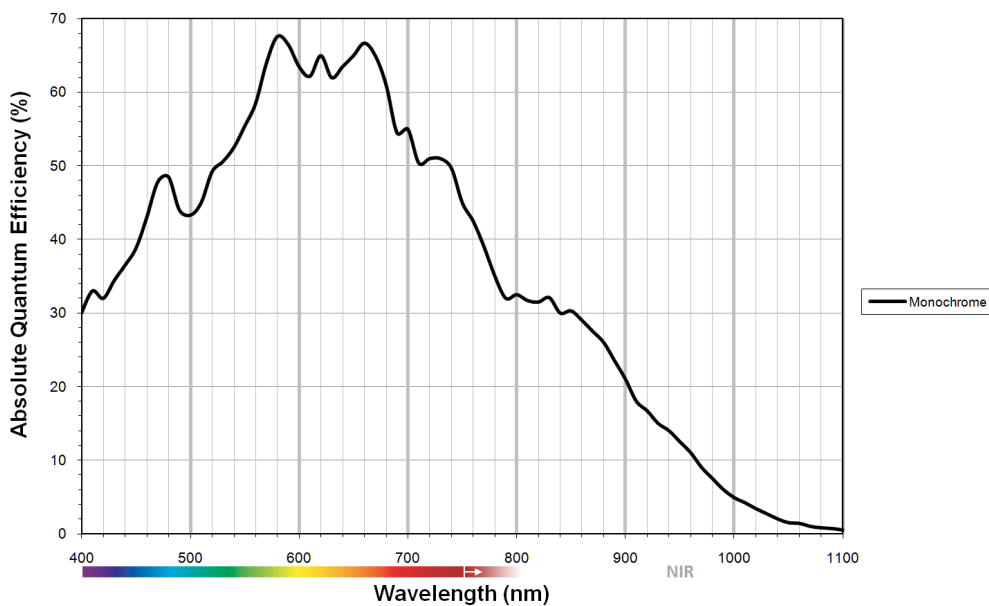
Models:

Bigeye P-629B Cool (GigE)

## Specifications

Bigeye P	P-629
Interface	IEEE 802.3 1000baseT
Resolution	3072 (H) × 2048 (V)
Sensor	ON Semi KAF-6303E
Sensor type	CCD Progressive
Sensor size	Type 35 mm
Pixel size	9.0 $\mu\text{m}$ × 9.0 $\mu\text{m}$

<b>Bigeye P</b>	<b>P-629</b>
Lens mount (default)	F-Mount
Max. frame rate at full resolution	0.67 fps
ADC	14 bit
Image buffer (RAM)	
<b>Output</b>	
Bit depth	14 bit
Monochrome pixel formats	Mono8, Mono10, Mono12, Mono14, Mono16
<b>Operating conditions/dimensions</b>	
Operating temperature	0 °C to 35 °C
Power requirements (DC)	12 V
Power consumption	33.6 W @ 12 VDC
Mass	1460 g
Body dimensions (L × W × H in mm)	141.75 × 90 × 109 (including connectors)
Regulations	CE: 2014/30/EU (EMC), 2011/65/EU (RoHS)



## Features

- Binning (2 x 2)
- Manual gain, 6 dB
- Exposure time 50 ms to 30 minutes
- Background correction
- Continuous mode (image acquisition with maximum frame rate)
- Image on demand mode (triggered image acquisition)



In combination with Allied Vision's AcquireControl software, extensive image analysis functions are available:

- BCG LUT (brightness, contrast, gamma)
- Auto contrast
- Auto brightness
- Analyze multiple regions (rectangular, circle) within the image
- Real-time statistics and histogram display



## Applications

The Bigeye P-629B Cool is a low noise CCD camera with an invincible signal/noise ratio. It is best suited for applications with the highest demands on image quality. The spectral range of its sensor covers both the visible and the NIR spectral range. 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
- Non-destructive evaluation of photosensitive objects