



# Bigeye P

## P-629 NIR

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

## Description

### Cooled 6 Megapixel camera for visible + NIR spectrum, Full Frame CCD

The Bigeye P-629B NIR Cool includes 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

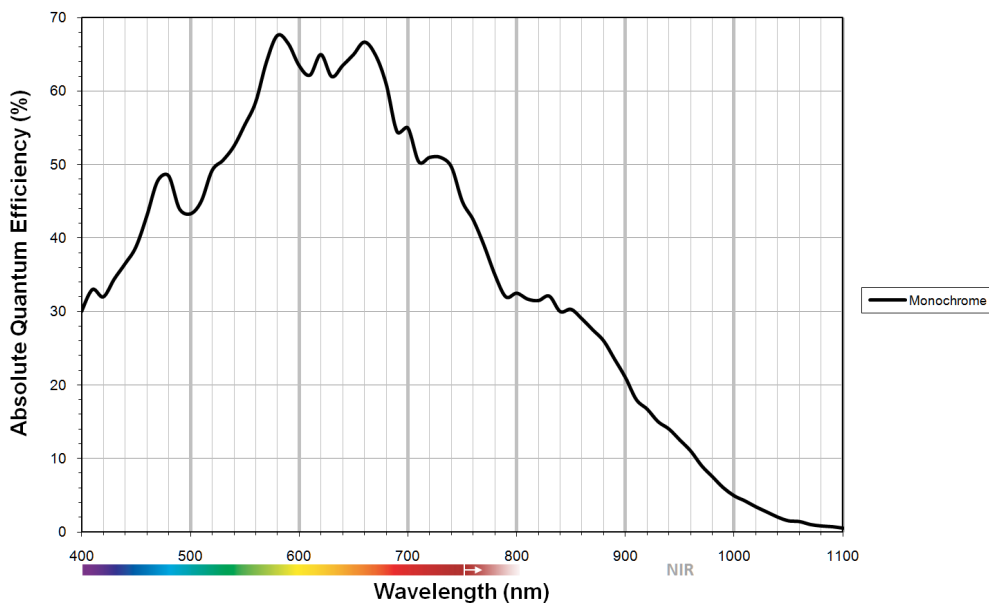
#### Models:

Bigeye P-629B NIR Cool (GigE)

## Specifications

Bigeye P	P-629 NIR
Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
Resolution	3072 (H) × 2048 (V)
Sensor	ON Semi KAF-6303E
Sensor type	CCD Progressive
Sensor size	Type 35 mm

<b>Bigeye P</b>	<b>P-629 NIR</b>
Pixel size	9.0 $\mu\text{m}$ $\times$ 9.0 $\mu\text{m}$
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 $^{\circ}\text{C}$ to +35 $^{\circ}\text{C}$
Power requirements (DC)	12 V
Power consumption	33.6 W @ 12 VDC
Mass	1460 g
Body dimensions (L $\times$ W $\times$ H in mm)	141.75 $\times$ 90 $\times$ 109 (including connectors)
Regulations	CE: 2014/30/EU (EMC), 2011/65/EU (RoHS); FCC Class B



## 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 NIR Cool is optimal for image acquisition both in the visible and in the NIR spectral range. For this reason, applications which require sensitivity in the visible spectrum and in the NIR spectrum can be realized with just one camera.

Applications:

- Machine vision, visible and NIR spectrum
- Food inspection
- Medical and healthcare
- Microscopy
- Solar cell/wafer inspection, visible and NIR:
  - Glass inspection
  - Assembling inspection
  - Electroluminescence
  - Micro cracks detection
  - Defects
  - Efficiency