Allied Vision

Goldeye

CL-032 SWIR

- Goldeye CL-032 SWIR NIR camera with InGaAs sensor, 636 × 508 pixels, Peltier cooling

See the invisible

Short-wave infrared (SWIR) cameras with InGaAs sensor technology

Goldeye CL-032 SWIR with InGaAs FPA 636 × 508 runs 30.0 frames per second at 0.3 MP resolution.

Goldeye cameras are equipped with InGaAs sensor technology making them sensitive in the short wave infrared spectrum ranging from 900 nm to 1,700 nm. Some models have extended sensitivity in the visible spectrum down to 400 nm or up to 2200 nm. All Goldeye SWIR cameras can be operated at very high frame rates and capture outstanding low-noise images. They are the perfect choice for industrial and scientific applications beyond the visible spectrum. All Goldeye models are available with either a Camera Link or a GigE Vision interface.

The Goldeye is a short-wave infrared (SWIR) camera. It has a spectral response from 900 nm to 1700 nm. Its InGaAs sensors feature high sensitivity, very good linearity, and a high damage threshold against intense illumination. Thanks to the 14-bit processing and the numerous image correction features, Goldeye cameras produce an outstanding, low-noise image quality. The camera is also available with Peltier cooling. The Peltier cooling is beneficial especially for applications with long exposure times, or for exact temperature measurements.

- C-Mount, compatible with standard machine vision lenses
- GigE Vision, also available with Camera Link interface
- Options:
  - Peltier cooling for long exposure times and exact temperature measurements

Specifications

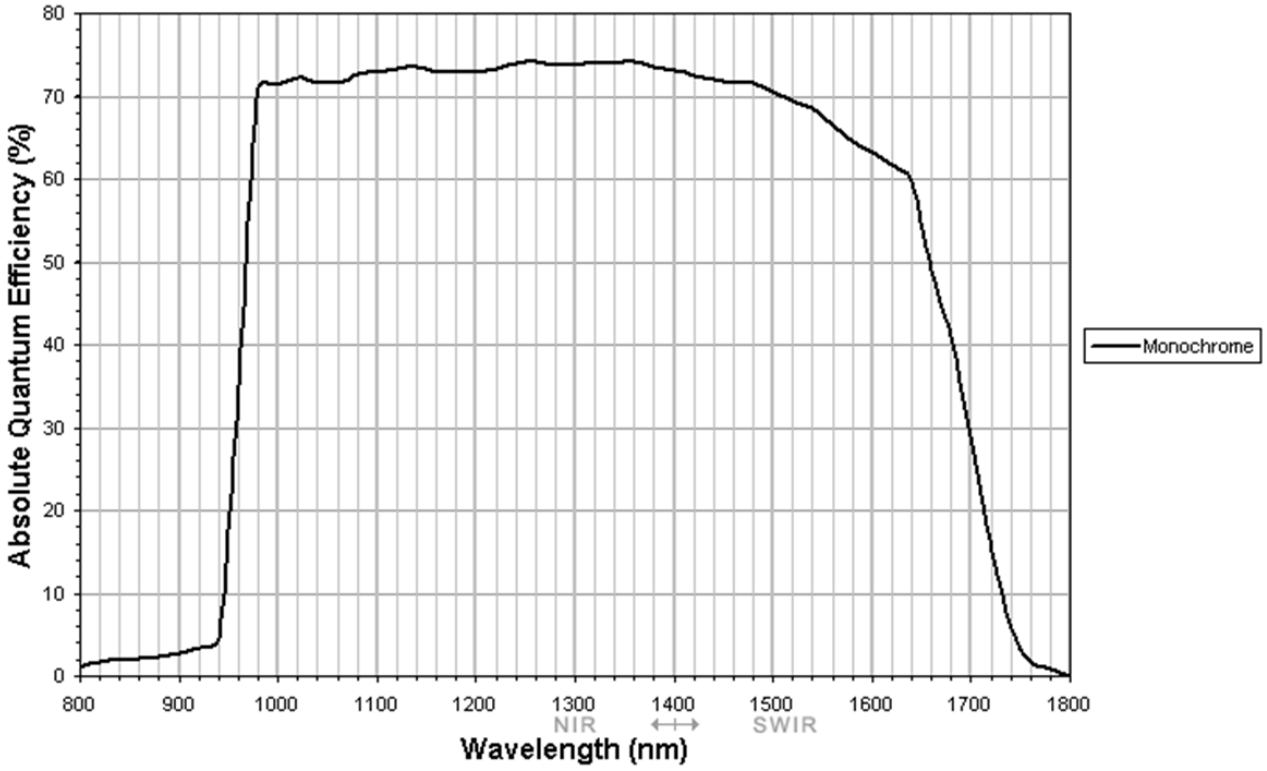
Interface	Camera Link Base
Resolution	636 (H) × 508 (V)
Sensor	InGaAs FPA 636 × 508
Sensor type	InGaAs
Sensor size	No standard size
Pixel size	25 µm × 25 µm
Lens mount (default)	C-Mount, F-Mount
Max. frame rate at full resolution	30 fps

Output

General purpose inputs/outputs (GPIOs)

Operating conditions/dimensions

Quantum efficiency


Absolute Quantum Efficiency (%)
80
70
60
50
40
30
20
10
0
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
NIR
SWIR
Wavelength (nm)
Monochrome

Features

- Gain, up to factor 20 at short exposure times
- Exposure time 64 µs to 1 s
- Shipped with built-in correction data sets
- Gain/offset correction (NUC / non-uniformity correction) for each pixel
- Bad pixel correction
- Background (FPN) 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:

- Pseudo color LUT with several color profiles
- Auto contrast
- Auto brightness
- Analyze multiple regions (rectangular, circle) within the image
- Real-time statistics and histogram display

Applications

Goldeye NIR cameras are very sensitive in the NIR spectrum, show excellent linearity, and tolerate intense illumination. They are the perfect choice for numerous NIR applications:

- Near-infrared imaging
- Thermal imaging of hot objects (in a range of 250°C to 800°C)
- Imaging spectroscopy
- Laser beam profiling
- Sorting according to plastic
- Semiconductor inspection
- Water or moisture detection
- Medical science and biology
- Vision enhancement