



# Goldeye G1

## P-008 SWIR

- Goldeye P-008 SWIR camera with InGaAs sensor, 320 × 256 pixels, optional cooling

## Description

SWIR camera with InGaAs sensor, 320 x 256 pixels, optional cooling

The Goldeye P-008 SWIR is a camera for short-wave infrared applications. It has a spectral response from 900 nm to 1700 nm. Its InGaAs sensor features high sensitivity, very good linearity, and a high damage threshold against intense illumination. The camera is optionally available with Peltier cooling. The Peltier cooling option is recommended for applications with long exposure times, or for exact temperature measurements.

Benefits and features:

- InGaAs sensor, spectral range 900 nm to 1700 nm (SWIR)
- 30 #m x 30 #m cell size, effective chip size 9.6 mm x 7.68 mm
- Excellent Quantum Efficiency at 1.0 #m -1.6 #m
- 118 fps at full resolution or 186 fps with reduced resolution (320 x 160)
- C-Mount, compatible with standard machine vision lenses
- GigE Vision, also available with Camera Link interface

Options:

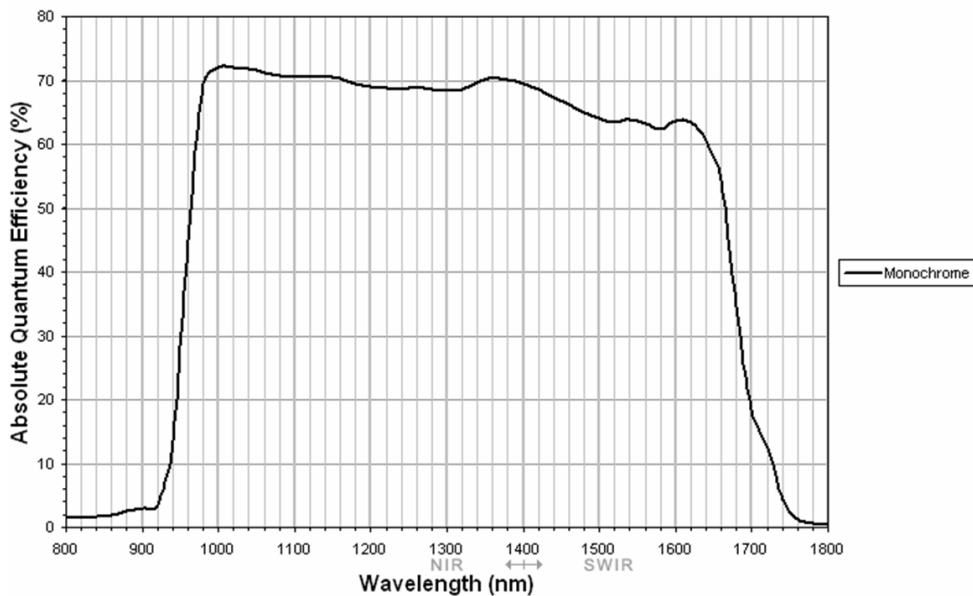
- Peltier cooling for long exposure times and exact temperature measurements

Models:

Goldeye P-008 SWIR (GigE Vision)  
Goldeye P-008 SWIR Cool (GigE Vision)  
Goldeye CL-008 SWIR (Camera Link)  
Goldeye CL-008 SWIR Cool (Camera Link)

## Specifications

<b>Goldeye G1</b>	<b>P-008 SWIR</b>
Interface	IEEE 802.3 1000baseT
Resolution	320 (H) × 256 (V)
Spectral range	SWIR, 900 nm to 1700 nm
Sensor	InGaAs FPA 320 x 256
Sensor type	InGaAs
Cell size	30 μm x 30 μm
Lens mount	C-Mount, F-Mount, M42-Mount
Max frame rate at full resolution	118 fps
ADC	14 bit
Image buffer (RAM)	
<b>Output</b>	
Bit depth	12 bit
Mono modes	Mono12
<b>Operating conditions/dimensions</b>	
Operating temperature	0 °C to +30 °C, Cool: 0 °C to +40°C
Power requirements (DC)	12 V
Power consumption (@12 V)	7.2 W / Cool: 33.6 W
Mass	660 g /Cool: 1420 g
Body dimensions (L × W × H in mm)	89 × 90 × 71 / Cool: 116 × 90 × 99
Regulations	CE (2004/108/EC), RoHS (2011/65/EU), WEEE (2012/19/EU), FCC Class B



## Features

- Switchable gain, factor 10 with short exposure times
  - Exposure time 5  $\mu$ s to 100 ms (Goldeye P/CL-008 LWIR)
  - Exposure time 5  $\mu$ s to 1 s (Goldeye P/CL-008 LWIR Cool)
- Shipped with built-in correction data sets
- Gain/offset correction (NUC/non-uniformity correction) for each pixel
- Factory adjusted bad pixel correction
- Background (FPN) correction
- Continuous mode (image acquisition with maximum frame rate)
- Image On Demand mode (triggered image acquisition)

In combination with AVT'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 SWIR cameras are very sensitive in the short-wave infrared spectrum, show excellent linearity, and tolerate intense illumination. They are the perfect choice for numerous SWIR applications:

- Short-wave infrared imaging
- Thermal imaging of hot objects (in a range from 250°C to 800°C)
- Semiconductor inspection
- Water or moisture detection
- Imaging spectroscopy
- Laser beam profiling
- Plastic sorting
- Medical science and biology
- Vision enhancement