Description

SWIR camera with InGaAs sensor, 636 x 508 pixels, Peltier cooling

The Goldeye P-032 is an SWIR (short-wave infrared) camera. 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 comes standard with Peltier cooling. The Peltier cooling is ideal for applications with long exposure times, or for exact temperature measurements. The image quality benefits from numerous image preprocessing features.

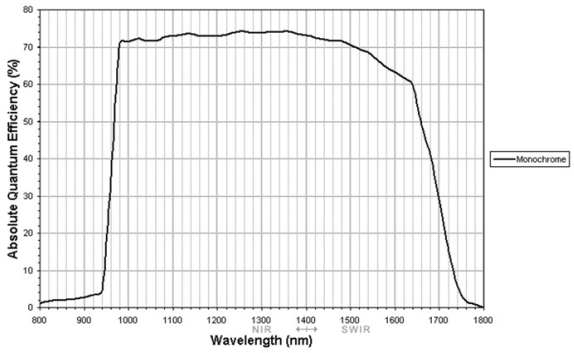
- InGaAs sensor, spectral range 900 nm – 1700 nm (SWIR, short-wave infrared)
- 25 µm x 25 µm cell size, effective chip size 15.9 mm x 12.7 mm
- 14-bit digital processing
- 30 fps (30 Hz)
- Peltier cooling for long exposure times and exact temperature measurements
- GigE Vision, also available with Camera Link interface
- Options
  - C-Mount or F-Mount

Models:
Goldeye P-032 SWIR Cool (GigE Vision)
Goldeye CL-032 SWIR Cool (Camera Link)

Specifications

Goldeye	P-032 SWIR
Interface	IEEE 802.3 1000baseT
Resolution	636 x 508
Spectral range	SWIR, 900 - 1700 nm
Sensor	InGaAs 626 x 508
Sensor type	InGaAs
Sensor size	No standard size
Cell size	25 µm x 25 µm
Lens mount	C/F-Mount
Max frame rate at full resolution	30 fps
A/D	14 bit
	Output
Bit depth	12 bit
Mono modes	Mono12
	Operating conditions/Dimensions
Operating temperature	0°... +35 °C
Power requirements (DC)	12 V
Power consumption (12 V)	15.6 W
Mass	1110 g (C-Mount)
Body Dimensions (L x W x H in mm)	115.8 x 90 x 99 (C-Mount)
Regulations	CE, RoHS (2002/95/EC)

Download technical drawing (click here)



Smart features

- Switchable gain, factor 20 at short exposure times
- Exposure time 64 µs – 1 s
- 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
- … and more

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:

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