Allied Vision

GiGE VISION

Goldeye

P-008 SWIR

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

见所未见

搭载 InGaAs 传感器技术的短波红外 (SWIR) 相机

Goldeye P-008 SWIR 搭载 InGaAs FPA 320 × 256 传感器，在 0.1 MP 分辨率下速度可达 118.0 帧/秒。

Goldeye 相机配备了 InGaAs 传感器技术，对 900-1700 nm 波段红外短波非常敏感。一些型号将波段灵敏度扩展至可见光（400nm 或 2200nm）。所有 Goldeye SWIR 相机都可以超高帧率运行，拍摄出高质量的低噪图像。此款相机是不可见光谱的工业和科技应用的理想选择。所有 Goldeye 机型均搭载 Camera Link 或 GigE Vision 接口。

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

性能参数

接口	IEEE 802.3 1000baseT
分辨率	320 (H) × 256 (V)
Spectral range	SWIR, 900 nm to 1700 nm
传感器	InGaAs FPA 320 × 256
传感器类型	InGaAs
传感器尺寸	No standard size
像元尺寸	30 µm × 30 µm
标准镜头接口	C-Mount, F-Mount, M42-Mount
最大满帧帧率	118 fps
ADC	14 Bit

输出

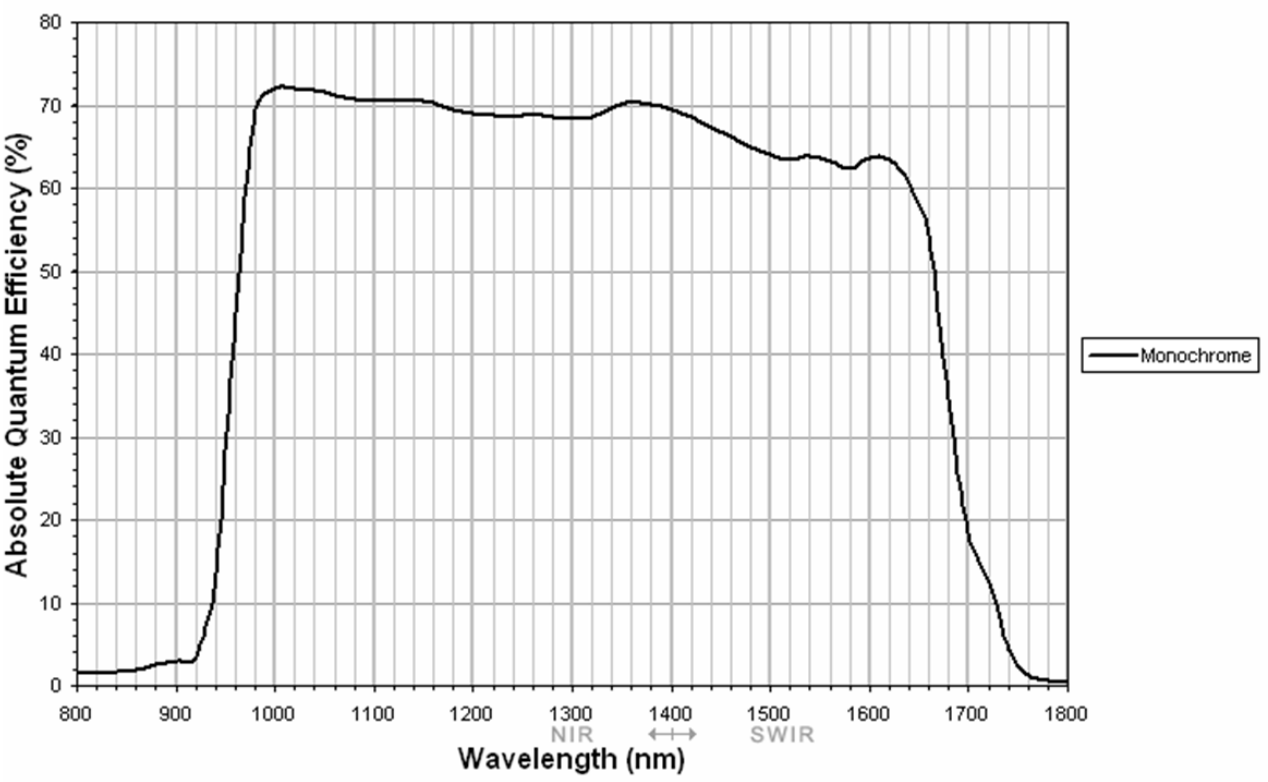
Bit 位数	12-bit
黑白像素格式	Mono12

通用输入输出口 (GPIOs)

工作条件/尺寸

工作温度	0 °C to +30 °C, Cool: 0 °C to +40°C
电源要求 (DC)	12 V
功耗	7.2 W @ 12 VDC / Cool: 33.6 W @ 12 VDC
重量	660 g /Cool: 1420 g
尺寸 (L × W × H in mm)	89 × 90 × 71 / Cool: 116 × 90 × 99

量子转换效率


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

特性

- Switchable gain, factor 10 with short exposure times
  - Exposure time 5 µs to 100 ms (Goldeye P/CL-008 LWIR)
  - Exposure time 5 µs 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

应用场景

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