Allied Vision

GigE VISION

Bigeye

G-283 Cool

- Specially made for scientific applications
- Exposure time up to more than 4200 s

For demanding applications for both the visible spectrum and the NIR spectrum

Low noise cooled CCD cameras, up to 11 MP, prime quality

Bigeye G-283 Cool 搭载 Sony ICX674 传感器，在 2.8 MP 分辨率下速度可达 5.7 帧/秒。

The Bigeye is a Peltier cooled camera series for demanding applications. It is equipped with highly sensitive CCD sensors from Sony and OnSemi. Bigeye cameras are designed for low-noise image acquisition even at long exposure times. The compact, robust metal housing of all Bigeye cameras has a hermetically sealed vacuum section, ensuring maintenance-free operation for many years even under rough conditions. Moreover, two NIR enhanced camera versions are available (with ICX285 and KAF-6303E).

- Dual level Peltier cooling with 5 years warranty against condensation
- Low dark current even at very long exposure times
- Superior signal/noise ratio
- Robust alloy metal housing for industrial use
- Secure operation due to screw locks at all connectors
- Multi-functional, user-configurable I/O interface
- Support of AVT's GigE software development kits (SDKs)

性能参数

接口	IEEE 802.3 1000baseT
分辨率	1928 (H) × 1452 (V)
传感器	Sony ICX674
传感器类型	CCD Progressive
传感器尺寸	Type 2/3
像元尺寸	4.54 µm × 4.54 µm
标准镜头接口	C-Mount
最大满帧帧率	5.7 fps
ADC	14 Bit
缓存 (RAM)	32 MByte
冷却温度	-10 °C
暗流	0.020 e-/pixel/s
暗噪声	8 e-
饱和电子数	18000 e-
动态范围	67 dB

输出

Bit 位数	14-bit
黑白像素格式	Mono8, Mono12Packed, Mono14

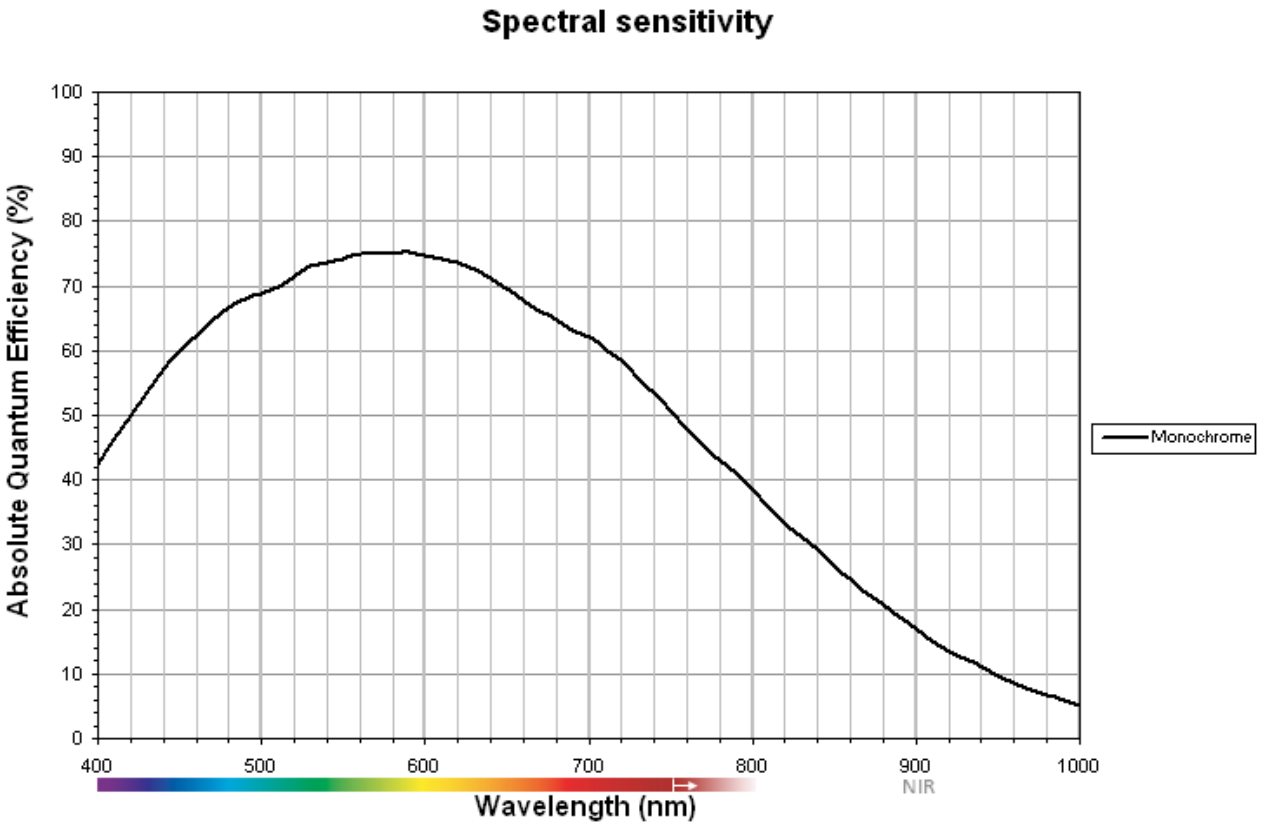
通用输入输出口 (GPIOs)

TTL I/Os	1/1
光耦 I/Os	3/3
RS232	2

工作条件/尺寸

工作温度	0 °C to 35 °C
功耗	max. <36 W at 12 VDC, typ. <18 W at 12 VDC
重量	1250 g
尺寸 (L × W × H in mm)	100.8 × 90 × 99 (including connectors)

量子转换效率


Spectral sensitivity
Absolute Quantum Efficiency (%)
100
90
80
70
60
50
40
30
20
10
0
400
500
600
700
800
900
1000
NIR
Wavelength (nm)
Monochrome

特性

- Gain (6 dB)
- Exposure time 9083 µs to 4294 seconds (≈ 71 min)
- Binning (2x1, 2x2)
- Gamma 0.45, 0.5, 0.7
- Three look-up tables (LUTs)
- Five storable user sets

Easy integration The Bigeye G-283B Cool can be easily integrated into your application, since it is GigE Vision compliant and compatible with Allied Vision's GigE SDKs. Additionally, this camera can be used with numerous third-party software solutions.

应用场景

The Bigeye G-283B Cool is a low noise CCD camera with an excellent signal/noise ratio. It is best suited for applications with the highest demands on image quality. Thanks to the Peltier cooling, it is ideal for image acquisition with long exposure times. Typical applications:

- Low-noise imaging (industrial and scientific imaging)
- Image acquisition with long exposure times
- Microscopy with high resolution
- Fluorescence microscopy
- Gel electrophoresis, DNA documentation
- Non-destructive evaluation of photosensitive objects
- Astronomy