Allied Vision

Alvium 1800 C-158

- IMX273 CMOS sensor
- ALVIUM image processing
- MIPI CSI-2 interface
- Various hardware options

Model without hardware options

Alvium 1800 C – 高性能嵌入式视觉相机模块

面向嵌入式系统开发人员的机器视觉传感器

Alvium 1800 C-158 搭载 Sony IMX273 传感器，在 153.0MP 分辨率下速度可达 1.6 帧/秒。

Alvium 1800 C MIPI CSI-2 相机系列功能强大，将机器视觉应用中广受欢迎的索尼高性能图像传感器引入嵌入式系统，为嵌入式开发者提供更多选择。这类传感器分辨率最高可达 2000 万像素，在提供优异画质的同时，帧速率可达到 Alvium 1500 C 型号的两倍。

See the Alvium Cameras Hardware Options for lens mount and housing options, as well as the Customization and OEM Solutions webpage for additional options.

To operate Alvium 1500 C cameras on your vision system, Allied Vision provides different access modes: - Direct Register Access (DRA) to control the cameras via registers for advanced users. - Video4Linux2 Access allows to control the cameras via established V4L2 API and applications like GStreamer and OpenCV. Open-source CSI-2 drivers are available on GitHub for different boards and system on chips (SoCs).

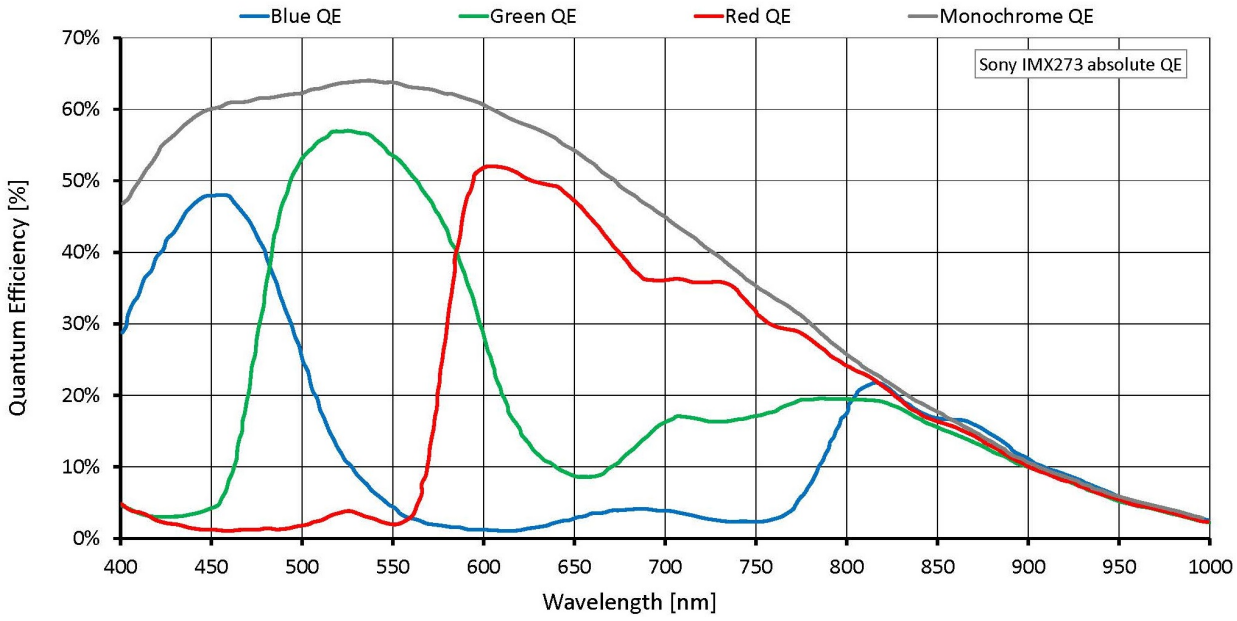
性能参数

	Alvium 1800 C-158
接口	MIPI CSI-2, up to 4 lanes
分辨率	1456 (H) × 1088 (V)
Spectral range	300 to 1100 nm
传感器	Sony IMX273

Alvium 1800 C-158	
传感器类型	CMOS
快门种类	Global shutter
传感器尺寸	Type 1/2.9
像元尺寸	3.45 µm × 3.45 µm
Lens mounts (available)	C-Mount, CS-Mount, S-Mount
最大满帧帧率	153 fps using 2 to 4 lanes, RAW8 (GREY)
ADC	12 Bit
缓存 (RAM)	256 KB
非易失性内存 (Flash)	1024 KB
成像性能 Imaging performance data is based on the evaluation methods in the EMVA 1288 Release 3.1 standard for characterization of image sensors and cameras. Measurements are typical values for monochrome models measured without optical filter.	
在波长为 529nm 下，量子转换效率	64 %
暗噪声	2.1 e^-
饱和电子数	10400 e^-
动态范围	72 dB
绝对灵敏度阈值	2.7 e^-
输出	
Bit 位数	Max. 12 Bit
YUV 彩色像素格式	YUV422 8-bit (UYVY) [MIPI CSI-2 (FOURCC)]
RGB 彩色像素格式	RBG888 (RGB3) [MIPI CSI-2 (FOURCC)]
原始像素格式	RAW8 (GREY), RAW10 (Y10), RAW12 (Y12) [MIPI CSI-2 (FOURCC)]
通用输入输出口 (GPIOs)	
TTL I/Os	2 programmable GPIOs
工作条件/尺寸	
工作温度	+5 °C to +65 °C housing temperature (with heat sink)
电源要求 (DC)	5 VDC over MIPI CSI-2
功耗	Typical: 2.4 W
重量	10 g (bare board)

Alvium 1800 C-158	
尺寸 (L × W × H in mm)	8 × 26 × 26 (bare board)
符合规范	2011/65/EU, including amendment 2015/863/EU (RoHS)

量子转换效率



特性

Image control

Auto control

- Auto exposure
- Auto gain
- Auto white balance (color models)

Other image controls

- Black level
- De-Bayering up to 5×5 (color models)

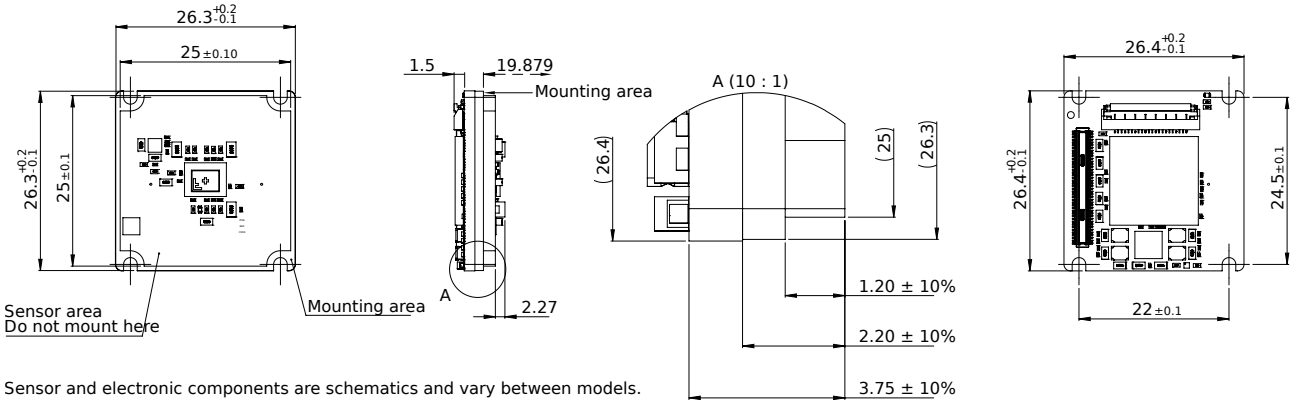
- DPC (factory calibrated)
- Exposure time
- FPNC (factory calibrated)
- Gain
- Gamma
- Hue (color models)
- Region of interest (ROI)
- Reverse X/Y
- Saturation (color models)

Camera control

- Acquisition Frame Rate
- Temperature monitoring (sensor board)
- Triggering (Frame Start)

外形尺寸

Camera hardware options



Sensor and electronic components are schematics and vary between models.