Allied Vision

# Alvium 1800 U

## Alvium 1800 U-1240



Alvium 1800 U-1240 innovative USB camera with Sony IMX226 rolling shutter sensor provides industrial performance for cost effective embedded and machine vision applications.

## General

| | |
|---|---|
| Model | Alvium 1800 U-1240 |
| Product series | Alvium 1800 U |
| Status | Available |

## Sensor

| | |
|---|---|
| Sensor type | Area scan |
| Chroma | Color, Mono |
| Spectrum | Visible |
| Spectral range | 300 nm to 1100 nm |
| Resolution | 4,024 × 3,036 (12.20 MP) |
| Sensor model | Sony IMX226 |
| Sensor architecture (material) | cmos |
| Shutter type(s) | Global Reset Shutter, Rolling shutter (RS) |
| Sensor size | 7.4 × 5.6 mm (9.3 mm, Type 1/1.7) |
| Pixel size | 1.85 µm × 1.85 µm |

## Pixel formats

| | |
|---|---|
| Sensor bit depth | 10-bit |
| YUV pixel formats | YCbCr411_8_CbYYCrYY, YCbCr422_8_CbYCrY, YCbCr8_CbYCr |
| RGB pixel formats | BGR8, RGB8 (default) |
| Bayer pixel formats | BayerRG12 |

## Imaging performance

| | |
|---|---|
| Quantum efficiency @ 529 nm | 74 % |

## Timing and gain

| | |
|---|---|
| Max. frame rate | 35 fps |
| Exposure time | 11 µs to 10 s |
| Gain | 0.0 dB to 27.0 dB |

## I/Os and power

| | |
|---|---|
| Non-isolated lines | 4 programmable GPIOs |
| Power supply | Power over USB 3.1 Gen 1 \| External power 5.0 V |
| Power consumption | USB power: 3.1 W (typical) \| Ext. power: 3.3 W (typical) |

## Operating conditions

| | |
|---|---|
| Operating temperature | -20 °C to 65 °C (housing) |

## Mechanical properties

| | |
|---|---|
| Body dimensions (L x W x H in mm) | 38 × 29 × 29 |
| Lens mount(s) | C-Mount, CS-Mount, S-Mount |
| Weight | 65 g |

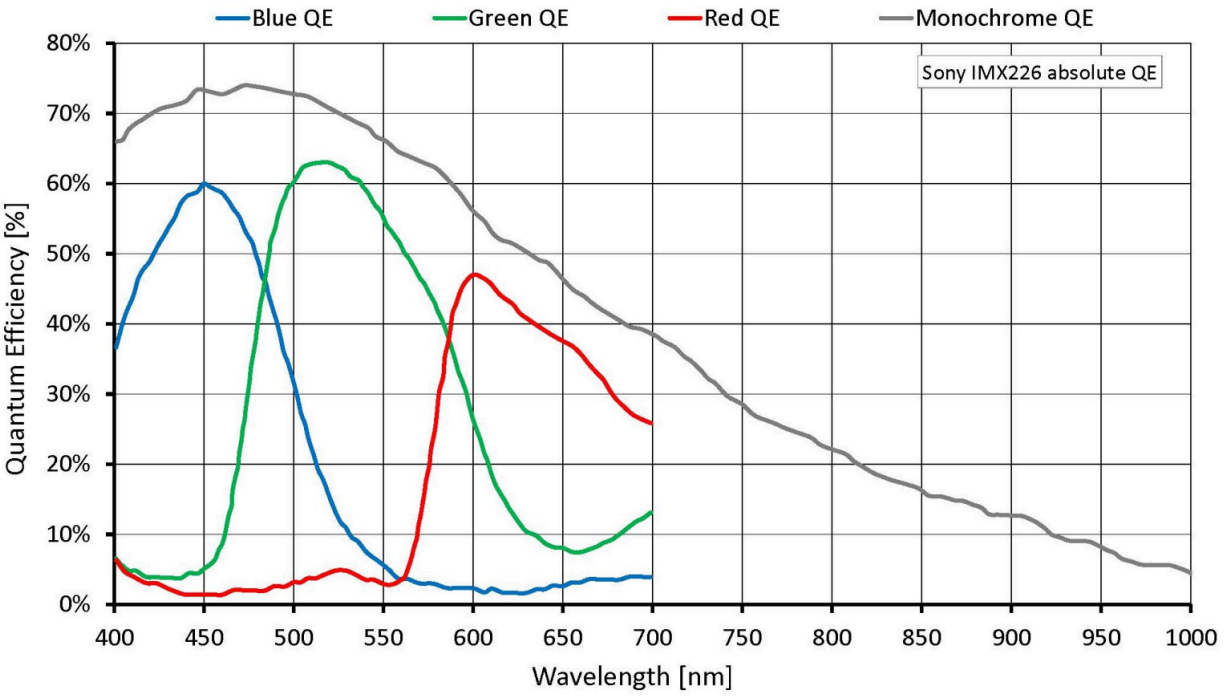
## On-board memory and FPGA

| | |
|---|---|
| Image buffer (RAM) | 256 KByte |
| Non-volatile memory (Flash) | 1024 KByte |

## Interfaces

| | |
|---|---|
| Digital interface | usb3.0 |
| Vision standard | USB3 Vision |

## Quantum Efficiency



# Technical Drawing

