Allied Vision

Alvium 1800 U

Alvium 1800 U-501 NIR



Alvium 1800 U-501m/c NIR innovative USB camera with ON Semi AR0522 CMOS rolling shutter sensor provides industrial performance for cost effective embedded and machine vision applications.

General

Model	Alvium 1800 U-501 NIR
Product series	Alvium 1800 U
Status	Available

Sensor

Sensor type	Area scan
Chroma	Color, Mono
Spectrum	Visible NIR
Spectral range	300 nm to 1100 nm
Resolution	2,592 × 1,944 (5.00 MP)
Sensor model	ON Semi AR0522
Sensor architecture (material)	cmos
Shutter type(s)	Rolling shutter (RS)
Sensor size	5.7 × 4.3 mm (7.1 mm, Type 1/2.5)
Pixel size	2.20 µm × 2.20 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	BayerGR10, BayerGR10p, BayerGR12, BayerGR12p, BayerGR8

Imaging performance

Quantum efficiency @ 529 nm	84 %

Imaging performance

Quantum efficiency @ 850 nm	30 %

Timing and gain

Max. frame rate	68 fps
Exposure time	8 µs to 480.00 ms
Gain	0.0 dB to 24.1 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: 2.2 W (typical) | Ext. power: 2.4 W (typical)

Operating conditions

Operating temperature (housing)	-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	60 g

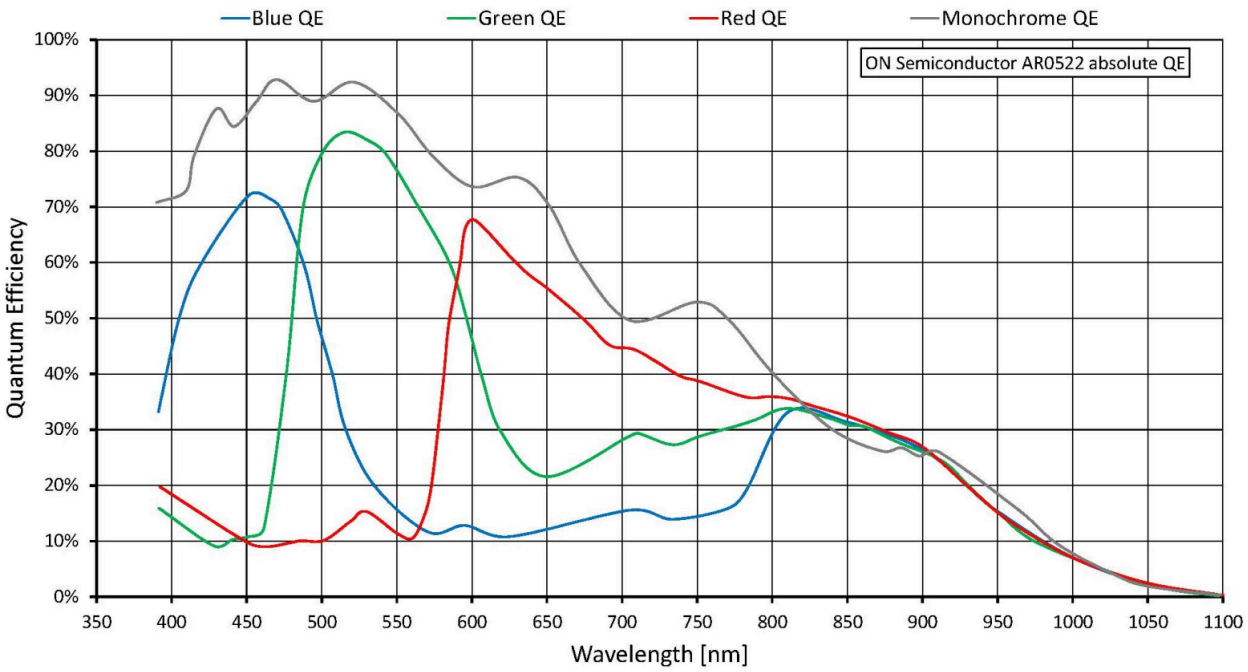
On-board memory and FPGA

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

Interfaces

Digital interface	usb3.0
Vision standard	USB3 Vision

Quantum Efficiency



Technical Drawing

