



Alvim 1800 U

Alvim 1800 U-501 NIR

Alvim 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	Alvim 1800 U-501 NIR
Product series	Alvim 1800 U
Status	Available

Sensor

Sensor type	Area scan
Chroma	Mono or Color
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
Sensor size	7.13 mm ø (Type 1/2.5)
Pixel size	2.20 µm × 2.20 µm

Pixel formats

Sensor bit depth	10-bit
Monochrome pixel formats	Mono8, Mono10, Mono10p, Mono12, Mono12p
YUV pixel formats	YCbCr411_8_CbYYCrYY, YCbCr422_8_CbYCrY, YCbCr8_CbYCr
RGB pixel formats	RGB8 (default), BGR8
Bayer pixel formats	BayerGR8, BayerGR10, BayerGR10p, BayerGR12, BayerGR12p

Imaging performance

Quantum efficiency @ 529 nm 84 %

Quantum efficiency @ 850 nm 30 %

Timing and gain

Max. frame rate 68 fps

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

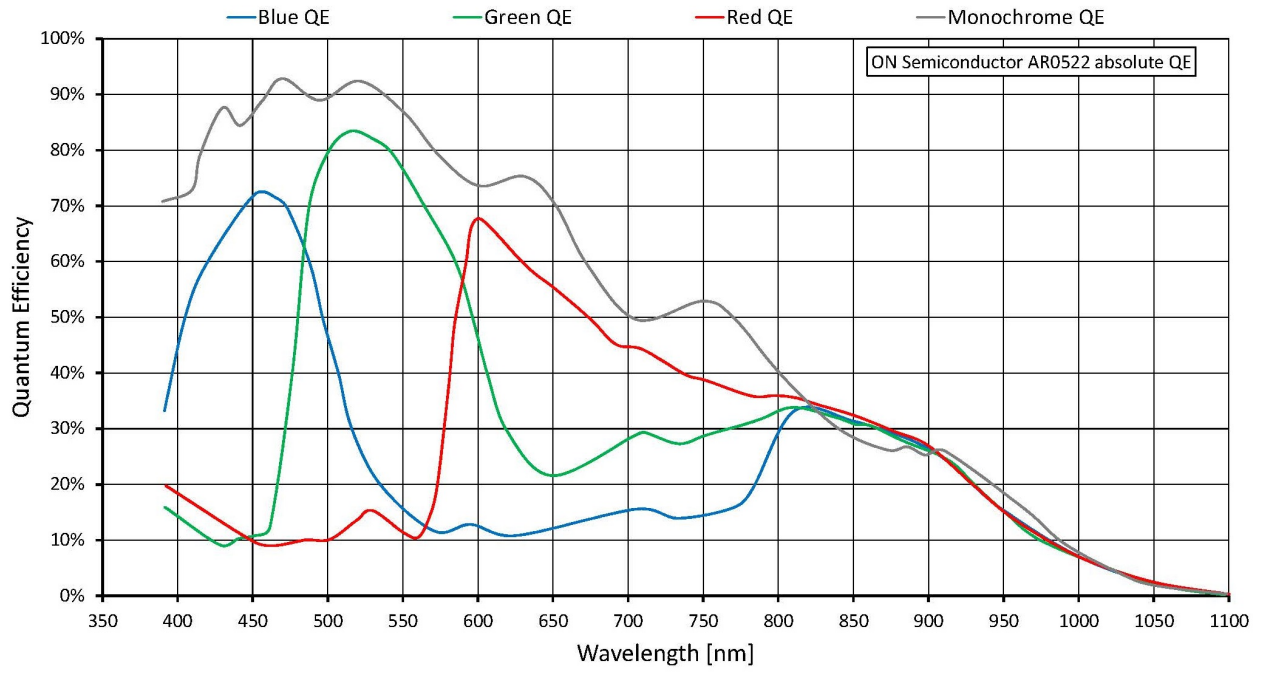
Non-volatile memory (Flash) 1024 KByte

Interfaces

Digital interface usb3.0

Vision standard USB3 Vision

Quantum Efficiency



Technical Drawing

