

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:	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

Pixel formats

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



