

# Alvium 1800 U

Alvium 1800 U-2040



Alvium 1800 U-2040 innovative USB camera with Sony IMX541 global shutter sensor provides industrial performance for cost effective embedded and machine vision applications.

## General

Model:	Alvium 1800 U-2040
Product series:	Alvium 1800 U
Status:	Available

## Sensor

Sensor type:	Area scan
Chroma:	Mono or Color
Spectrum:	Visible
Spectral range:	300 nm to 1100 nm
Resolution:	4,512 × 4,512 (20.40 MP)
Sensor model:	Sony IMX541
Sensor architecture (material):	CMOS
Shutter type(s):	Global Shutter
Sensor size:	17.6 mm ø (Type 1.1)
Pixel size:	2.74 µm × 2.74 µm

## Pixel formats

Sensor bit depth:	12-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: BayerRG8, BayerRG10, BayerRG10p, BayerRG12, BayerRG12p

## Imaging performance

Quantum efficiency @ 529 nm: 68 %

## Timing and gain

Max. frame rate: 21 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: 3.9 W (typical) | Ext. power: 4.1 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

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



