Alvium 1800 U
Alvium 1800 U-050

Alvium 1800 U-050 innovative USB camera with ON Semi PYTHON 480 global shutter sensor provides industrial performance for cost effective embedded and machine vision applications.

General

Model:	Alvium 1800 U-050
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:	808 × 608 (0.50 MP)
Sensor model:	ON Semi PYTHON 480
Sensor architecture (material):	CMOS
Shutter type(s):	Global Shutter
Sensor size:	4.9 mm ø (Type 1/3.6)
Pixel size:	4.80 µm × 4.80 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:	BayerRG8, BayerRG10, BayerRG10p, BayerRG12, BayerRG12p

Imaging performance

Quantum efficiency @ 529 nm:	53 %

Timing and gain

Max. frame rate:	117 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: 1.5 W (typical) | Ext. power:1.7 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

29.6

13

4.3

20

M3 - 2.5 (2x)

29.4

24

29.4

24

M2 - 2 (4x)

C-Mount

38.2

7.9

5.7

11.5

⌀27.8

M2 - 2

8.5

9.1

10.5

18

M2 - 3.3 (2x)

33.2

13

13.4

20

3.5

M3 - 2.5 (2x)