



Alvium 1800 U

Alvium 1800 U-291

Alvium 1800 U-291 innovative USB camera with Sony IMX421 CMOS global shutter sensor provides industrial performance for cost effective embedded and machine vision applications.

General

Model	Alvium 1800 U-291
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	1,944 × 1,472 (2.90 MP)
Sensor model	Sony IMX421
Sensor architecture (material)	CMOS
Shutter type(s)	Global Shutter
Sensor size	12.75 mm ø (Type 2/3)
Pixel size	4.50 µm × 4.50 µm

Pixel formats

Sensor bit depth	8-bit, 10-bit, 12-bit; Adaptive (10-bit, 12-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	BayerRG8, BayerRG10, BayerRG10p, BayerRG12, BayerRG12p

Imaging performance

Quantum efficiency @ 529 nm 73 %

Timing and gain

Max. frame rate 144 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: 1.9 W (typical) | Ext. power: 2.1 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 60 g

On-board memory and FPGA

Image buffer (RAM) 256 KByte

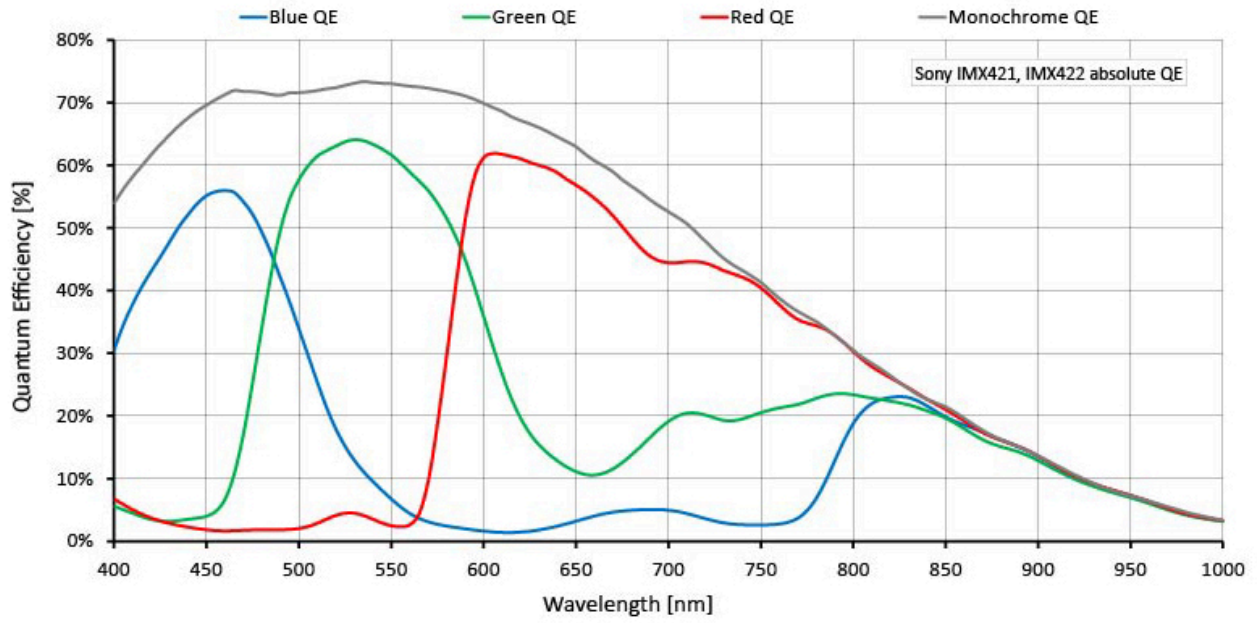
Non-volatile memory (Flash) 1024 KByte

Interfaces

Digital interface usb3.0

Vision standard USB3 Vision

Quantum Efficiency



Technical Drawing

