



Alvium 1800 U

Alvium 1800 U-040

Alvium 1800 U-040 innovative USB camera with Sony IMX287 CMOS global shutter sensor provides industrial performance for cost effective embedded and machine vision applications.

General

Model	Alvium 1800 U-040
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	728 × 544 (0.40 MP)
Sensor model	Sony IMX287
Sensor architecture (material)	cmos
Shutter type(s)	Global shutter (GS)
Sensor size	5 × 3.8 mm (6.3 mm, Type 1/2.9)
Pixel size	6.90 µm × 6.90 µm

Pixel formats

Sensor bit depth	10-bit, 12-bit, 8-bit
YUV pixel formats	YCbCr411_8_CbYYCrYY, YCbCr422_8_CbYCrY, YCbCr8_CbYCr
RGB pixel formats	BGR8, RGB8 (default)
Bayer pixel formats	BayerRG12

Imaging performance

Quantum efficiency @ 529 nm	64 %
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Timing and gain

Max. frame rate	494 fps
Exposure time	20 μ s to 10 s
Gain	0.0 dB to 48.0 dB

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))
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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

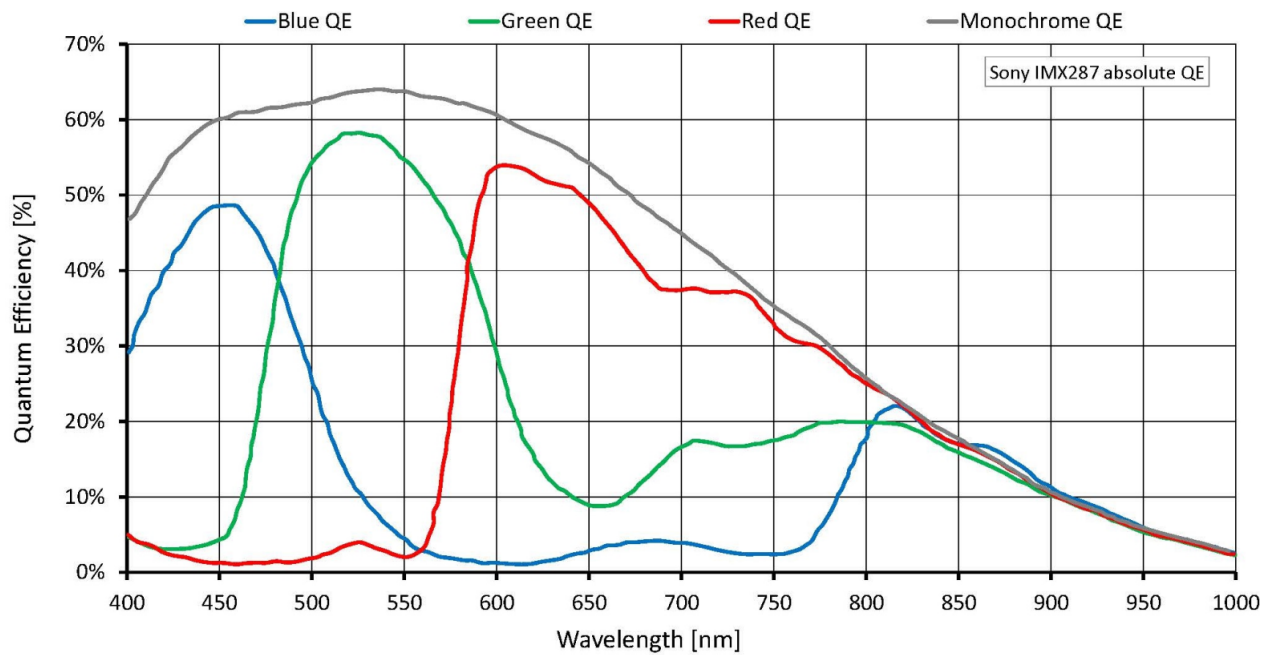
On-board memory and FPGA

Image buffer (RAM)	256 KByte
Non-volatile memory (Flash)	1024 KByte

Interfaces

Digital interface	usb3.0
Vision standard	USB3 Vision

Quantum Efficiency



Technical Drawing

