Allied Vision

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	Color, Mono
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 (GS)
Sensor size	12.4 × 12.4 mm (17.5 mm, Type 1.1)
Pixel size	2.74 µm × 2.74 µm

Pixel formats

Sensor bit depth	12-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	68 %

Timing and gain

Max. frame rate	21 fps
Exposure time	13 µs 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: 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

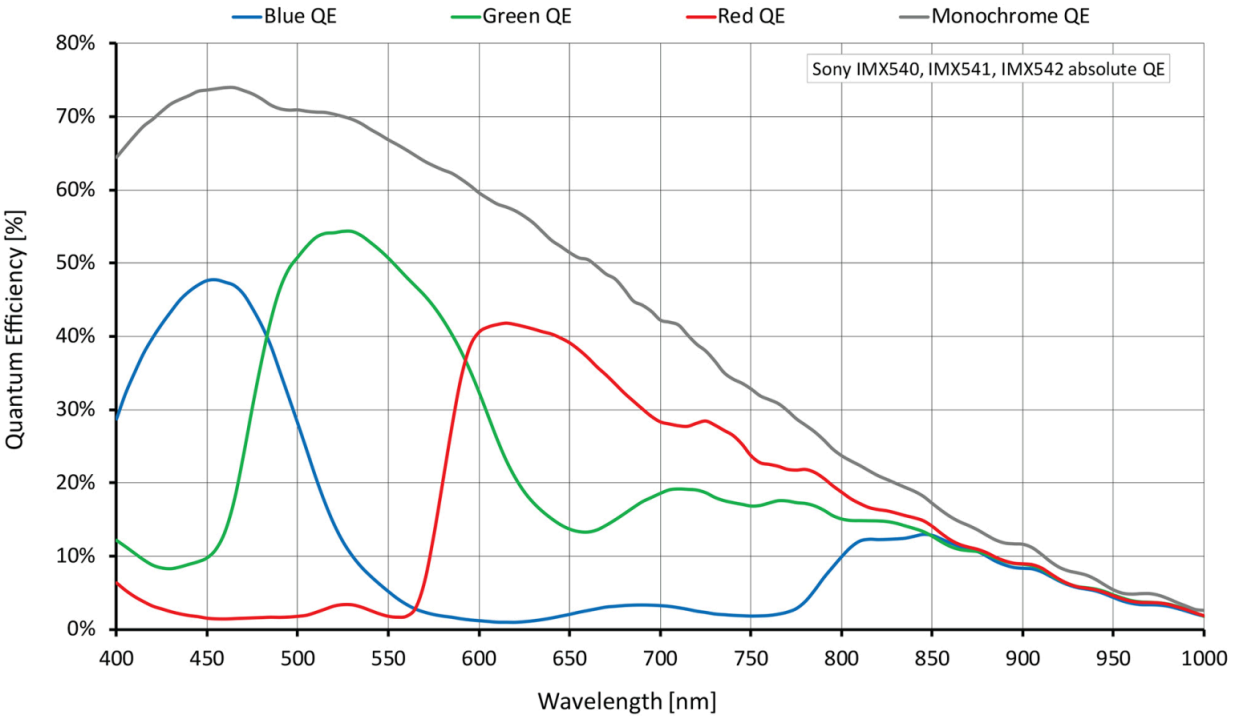
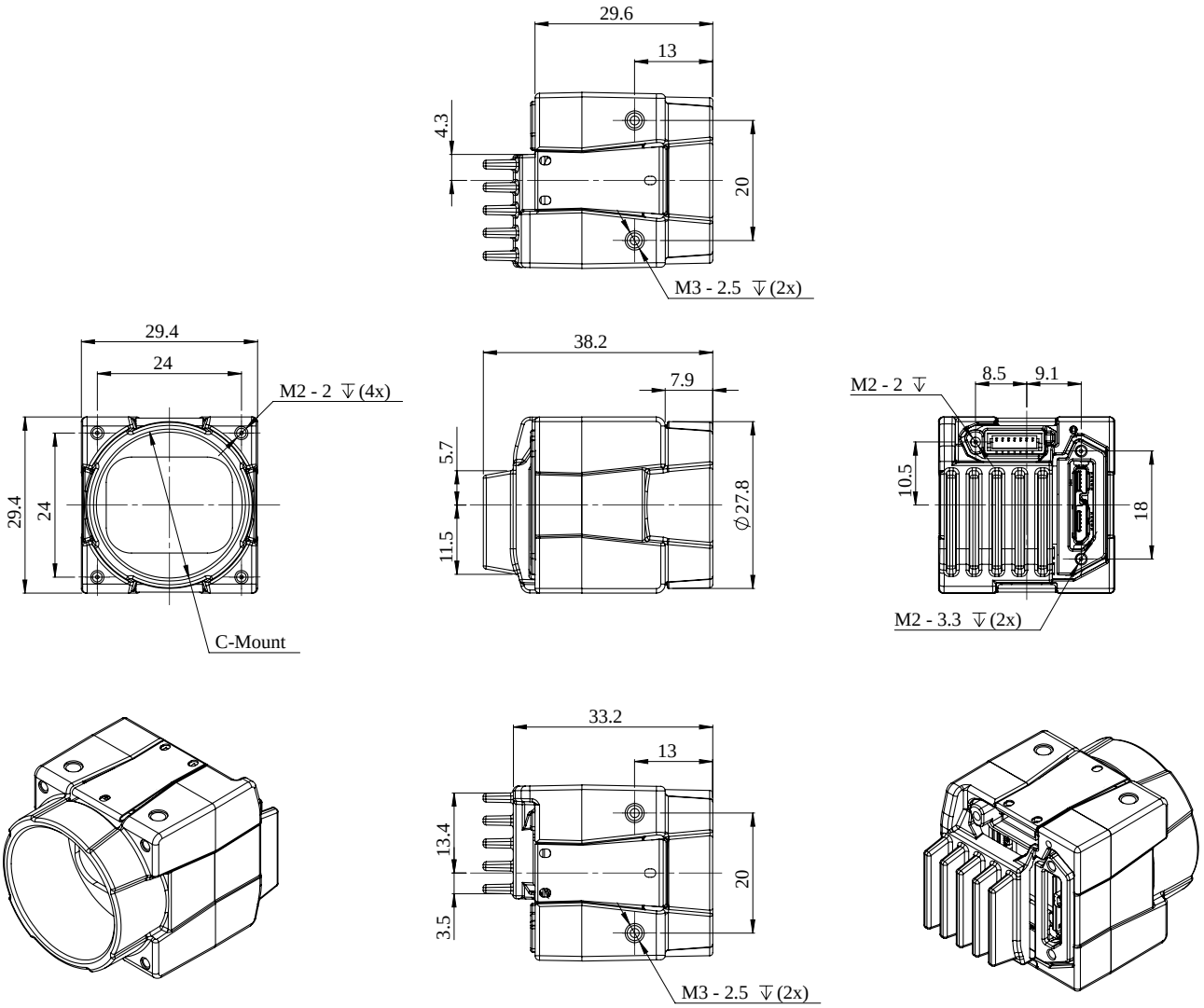
On-board memory and FPGA

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

Interfaces

Digital interface	usb3.0
Vision standard	USB3 Vision

Quantum Efficiency



Technical Drawing