Allied Vision

Alecs

Alecs G1-510 NX16

Alecs G1-510 innovative vision system with Sony IMX548 CMOS global shutter sensor enables developping applications faster. The NVIDIA® Jetson Orin™ NX16 embedded board provides 16 GByte RAM, with power modes up to 25 W. Embedded technologies enable advanced AI models and compute-intensive edge detection: Deep Learning Accelerator (DLA) with dedicated cores offloads the hosts' CPU and GPU and Programmable Vision Accelerator (PVA) with dedicated cores extends the Alvium BSP feature set by NVIDIA vision libraries. Alecs G1 comes with 128 GByte NVMe storage, providing sufficient space for AI models, datasets, and

一般

型號	Alecs G1-510 NX16
產品系列	Alecs
狀態	Available

感測器

感測器類型	Area scan
色度	Color, Mono
光譜	Visible
光譜範圍	300 nm to 1100 nm
解析度	2,464 × 2,064 (5.10 MP)
感測器型號	Sony IMX548
感測器架構 (材料)	cmos
快門類型	Global shutter (GS)
感測器尺寸	6.8 × 5.7 mm (8.8 mm, Type 1/1.8)
像素大小	2.74 µm × 2.74 µm

像素格式

感測器位深	12-bit
單色像素格式	GREY, RAW10, RAW12, RAW8, Y10, Y12

像素格式

YUV 像素格式	UYVY, YCbCr411_8_CbYYCrYY, YCbCr422_8_CbYCrY, YCbCr8_CbYCr, YUV422 8-bit
RGB 像素格式	BGR8, RGB3, RGB8 (default), RGB888 (default)
Bayer 像素格式	BayerRG12

影像性能

量子效率 @ 529 nm	68 %

時序與增益

最大影格率	81 fps
曝光時間	8 µs to 10 s
增益	0.0 dB to 48.0 dB

I/O 與電源

光隔離線	2 inputs, 2 outputs, 1 trigger input, 1 strobe output
電源供應	24 VDC
功耗	SoM: Max. 10 W to 25 W | Carrier board: Max. 2.0 W | Camera: Max. 2.8 W || Idle state: 8.5 W

操作條件

操作溫度 (機殼)	-20 °C to 65 °C ((housing))

機械特性

機殼尺寸 (長 x 寬 x 高 mm)	102 × 72 × 112
鏡頭接口	C-Mount
重量	810 g

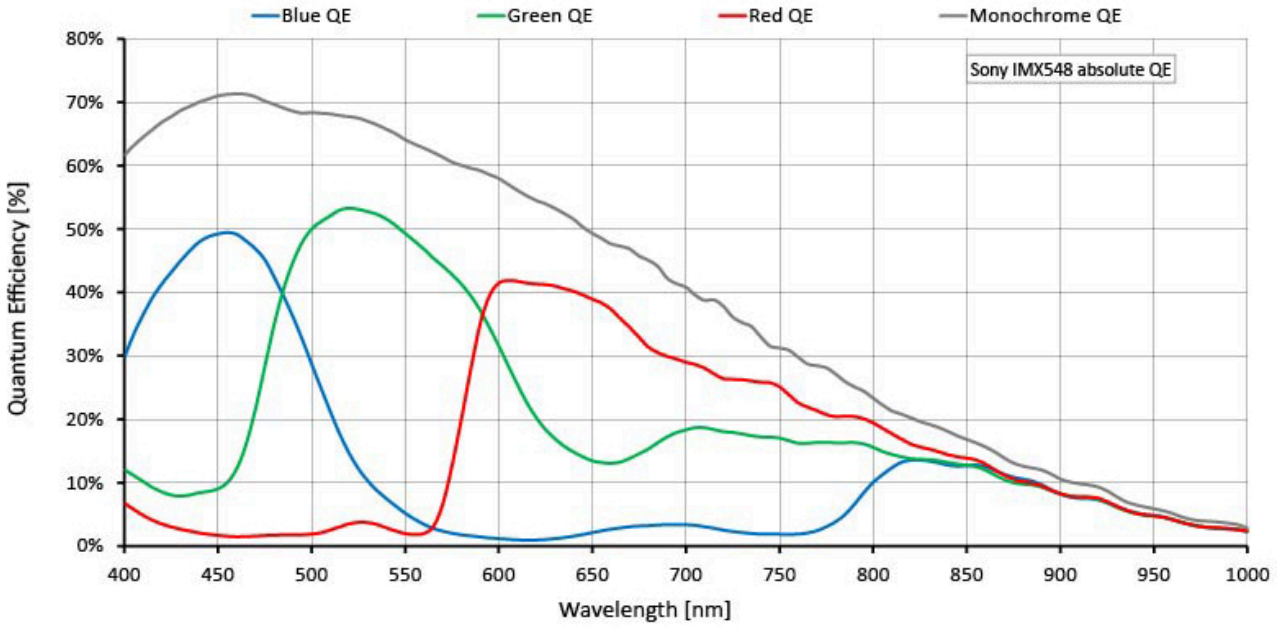
板載記憶體與 FPGA

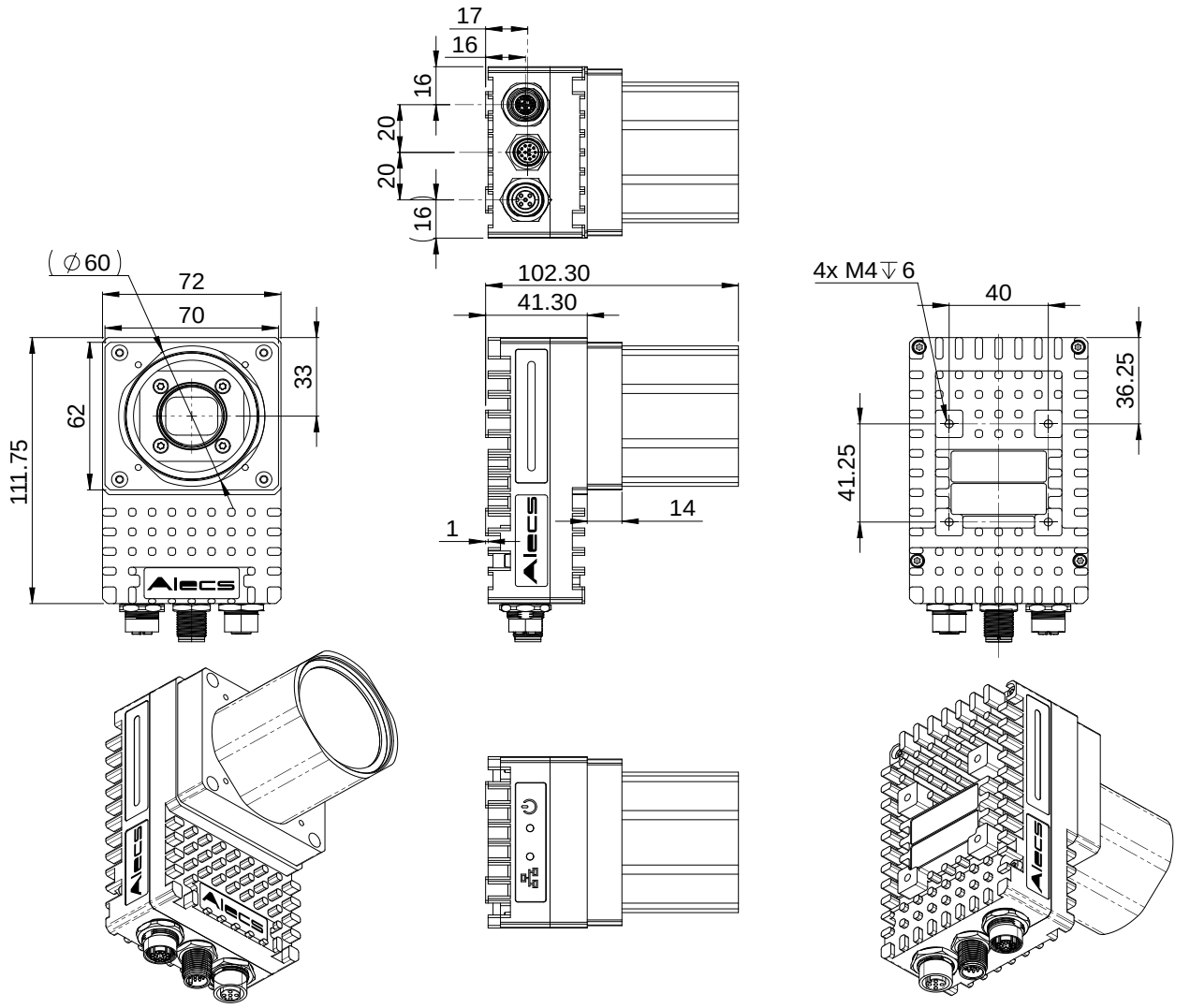
影像緩衝區 (RAM)	256 KByte
非揮發性記憶體 (Flash)	1024 KByte

介面

數位介面	IEEE 802.3 1000BASE-T

量子效率


Blue QE
Green QE
Red QE
Monochrome QE
Sony IMX548 absolute QE
Quantum Efficiency [%]
80%
70%
60%
50%
40%
30%
20%
10%
0%
400
450
500
550
600
650
700
750
800
850
900
950
1000
Wavelength [nm]

技術圖紙

Alecs Main Housing with Lens Tube LT4649