# Alecs

## Alecs G1-320 VSWIR NX16



Alecs G1-320 VSWIR innovative vision system with Sony IMX993 InGaAs global shutter sensor and NVIDIA® Jetson Orin™ NX16 enables developping applications for the near infrared spectrum 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 G1-320 VSWIR NX16 |
| 產品系列 | Alecs |
| 狀態 | Available |

### 感測器

| | |
|---|---|
| 感測器類型 | Area scan |
| 色度 | Mono |
| 光譜 | SWIR, Visible SWIR |
| 光譜範圍 | 400 nm to 1700 nm |
| 解析度 | 2,080 × 1,544 (3.20 MP) |
| 感測器型號 | Sony IMX993 \| InGaAs |
| 感測器架構 (材料) | InGaAs |
| 快門類型 | Global shutter (GS) |
| 感測器尺寸 | 7.2 × 5.3 mm (8.9 mm, Type 1/1.8) |
| 像素大小 | 3.45 µm × 3.45 µm |

### 像素格式

| | |
|---|---|
| 單色像素格式 | GREY, RAW10, RAW12, RAW8, Y10, Y12 |

## 時序與增益

| | |
|---|---|
| 最大影格率 | 131 fps |
| 曝光時間 | 33 µs to 10 s |
| 增益 | 0.0 dB to 42.0 dB |

## I/O 與電源

| | |
|---|---|
| 非隔離線 | 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 55 °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 |

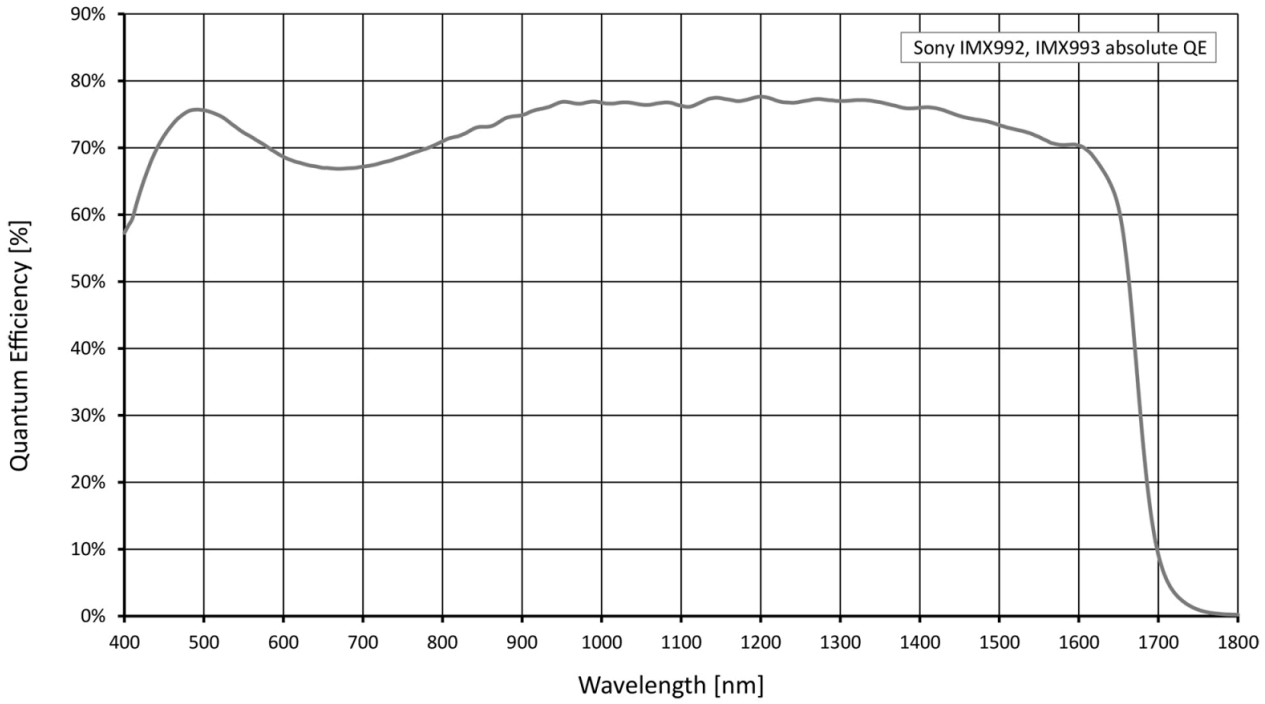
## 板載記憶體與 FPGA

| | |
|---|---|
| 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


Sony IMX992, IMX993 absolute QE
Quantum Efficiency [%]
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
Wavelength [nm]

# 技術圖紙

## Alecs Main Housing with Lens Tube LT4649

