Allied Vision

Alecs

Alecs G1-130 VSWIR NX16



NVIDIA® Jetson Orin™ NX 16GB inside

Alecs G1-130 VSWIR innovative vision system with Sony IMX990 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

General

Model	Alecs G1-130 VSWIR NX16
Product series	Alecs
Status	Available

Sensor

Sensor type	Area scan
Chroma	Mono
Spectrum	SWIR, Visible SWIR
Spectral range	400 nm to 1700 nm
Resolution	1,296 × 1,032 (1.30 MP)
Sensor model	Sony IMX990 | InGaAs
Sensor architecture (material)	cmos-ingaas
Shutter type(s)	Global shutter (GS)
Sensor size	6.4 × 5.1 mm (8.2 mm, Type 1/2)
Pixel size	5.00 µm × 5.00 µm

Pixel formats

Sensor bit depth	12-bit
Monochrome pixel formats	GREY, RAW10, RAW12, RAW8, Y10, Y12

Timing and gain

Max. frame rate	130 fps
Exposure time	15 µs to 10 s
Gain	0.0 dB to 42.0 dB

I/Os and power

Non-isolated lines	2 inputs, 2 outputs, 1 trigger input, 1 strobe output
Power supply	24 VDC
Power consumption	SoM: Max. 10 W to 25 W | Carrier board: Max. 2.0 W | Camera: Max. 2.8 W || Idle state: 8.5 W

Operating conditions

Operating temperature (housing)	-20 °C to 55 °C ((housing))

Mechanical properties

Body dimensions (L x W x H in mm)	102 × 72 × 112
Lens mount(s)	C-Mount
Weight	810 g

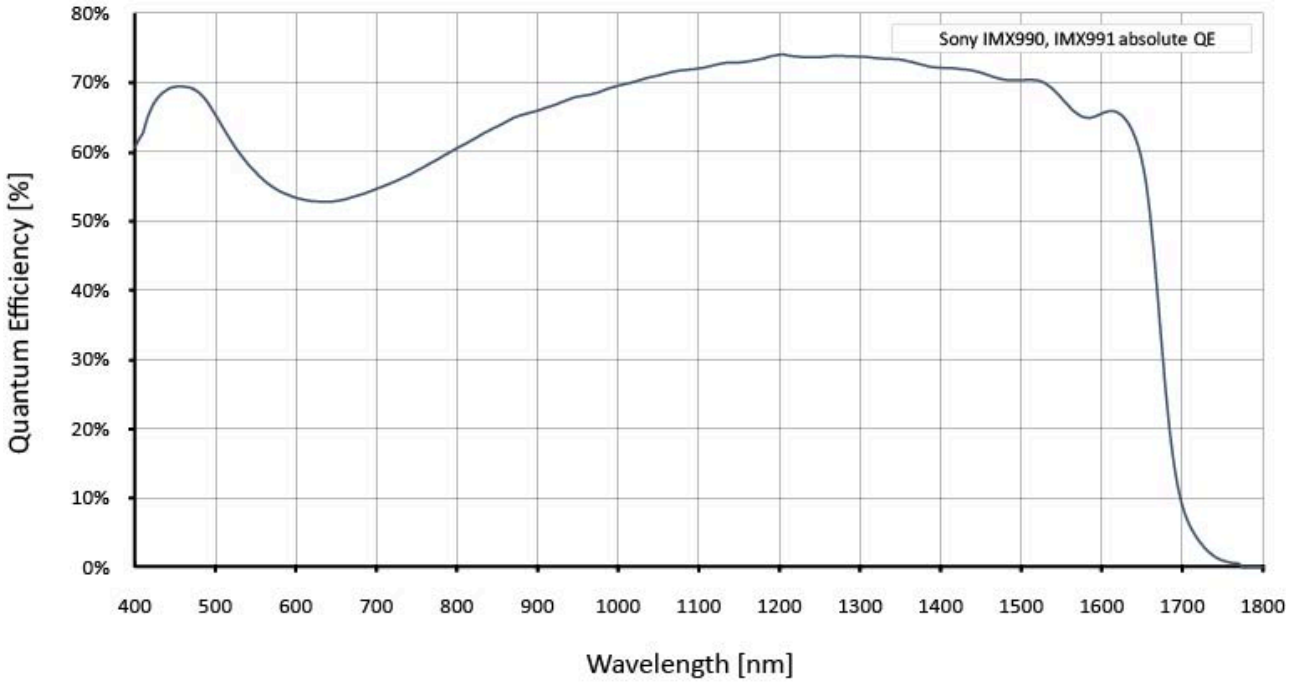
On-board memory and FPGA

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

Interfaces

Digital interface	IEEE 802.3 1000BASE-T

Quantum Efficiency



Technical Drawing

Alecs Main Housing with Lens Tube LT4649

