



Alecs G1-510 innovative vision system with Sony IMX548 CMOS global shutter sensor enables developing 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 Alvim BSP feature set by NVIDIA vision libraries. Alecs G1 comes with 128 GByte NVMe storage, providing sufficient space for AI models, datasets, and

Generale

Modello	Alecs G1-510 NX16
Serie di prodotti	Alecs
Stato	Available

Sensore

Tipo di sensore	Area scan
Croma	Color, Mono
Spettro	Visible
Gamma spettrale	300 nm to 1100 nm
Risoluzione	2,464 × 2,064 (5.10 MP)
Modello sensore	Sony IMX548
Architettura sensore (Materiale)	cmos
Tipi di otturatore	Global shutter (GS)
Dimensione sensore	6.8 × 5.7 mm (8.8 mm, Type 1/1.8)
Dimensione pixel	2.74 µm × 2.74 µm

Formati pixel

Profondità bit sensore	12-bit
Formati pixel monocromatici	GREY, RAW10, RAW12, RAW8, Y10, Y12

Formati pixel

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

Prestazioni di imaging

Efficienza quantica @ 529 nm	68 %
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Tempi e guadagno

Frequenza fotogrammi max.	81 fps
Tempo di esposizione	8 μ s to 10 s
Guadagno	0.0 dB to 48.0 dB

I/O e alimentazione

Linee otticamente isolate	2 inputs, 2 outputs, 1 trigger input, 1 strobe output
Alimentazione	24 VDC
Consumo energetico	SoM: Max. 10 W to 25 W Carrier board: Max. 2.0 W Camera: Max. 2.8 W Idle state: 8.5 W

Condizioni operative

Temperatura operativa (Custodia)	-20 °C to 65 °C ((housing))
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Proprietà meccaniche

Dimensioni custodia (L x P x A in mm)	102 × 72 × 112
Attacco/i obiettivo	C-Mount
Peso	810 g

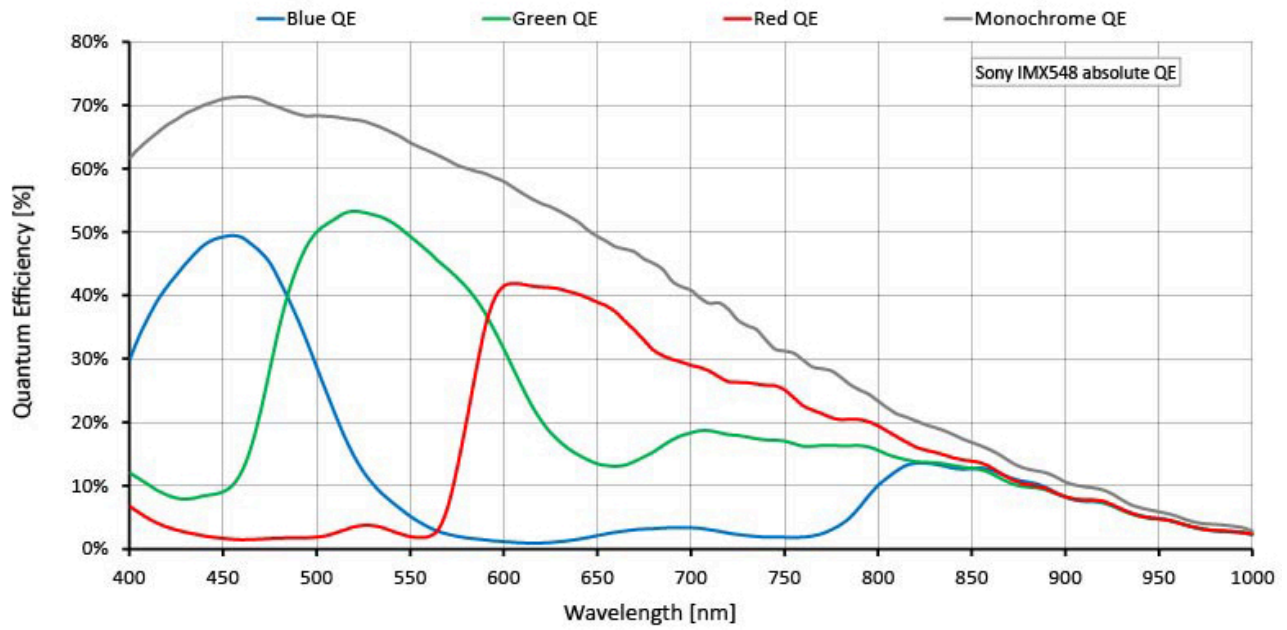
Memoria onboard e FPGA

Buffer immagine (RAM)	256 KByte
Memoria non volatile (Flash)	1024 KByte

Interfacce

Interfaccia digitale	IEEE 802.3 1000BASE-T
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Efficienza quantica



Disegno tecnico

Alecs Main Housing with Lens Tube LT4649

