



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

Allgemein

Modell	Alecs G1-510 NX16
Produktserie	Alecs
Status	Available

Sensor

Sensortyp	Area scan
Chroma	Color, Mono
Spektrum	Visible
Spektralbereich	300 nm to 1100 nm
Auflösung	2,464 × 2,064 (5.10 MP)
Sensormodell	Sony IMX548
Sensorarchitektur (Material)	cmos
Verschlusstyp(en)	Global shutter (GS)
Sensorgroße	6.8 × 5.7 mm (8.8 mm, Type 1/1.8)
Pixelgröße	2.74 µm × 2.74 µm

Pixelformate

Sensor-Bittiefe	12-bit
Monochrome Pixelformate	GREY, RAW10, RAW12, RAW8, Y10, Y12

Pixelformate

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

Bildgebungsleistung

Quanteneffizienz @ 529 nm	68 %
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Timing und Verstärkung

Max. Bildrate	81 fps
Belichtungszeit	8 μ s to 10 s
Verstärkung	0.0 dB to 48.0 dB

I/Os und Stromversorgung

Optisch isolierte Leitungen	2 inputs, 2 outputs, 1 trigger input, 1 strobe output
Stromversorgung	24 VDC
Stromverbrauch	SoM: Max. 10 W to 25 W Carrier board: Max. 2.0 W Camera: Max. 2.8 W Idle state: 8.5 W

Betriebsbedingungen

Betriebstemperatur (Gehäuse)	-20 °C to 65 °C ((housing))
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Mechanische Eigenschaften

Gehäuseabmessungen (L x B x H in mm)	102 × 72 × 112
Objektivanschluss/-anschlüsse	C-Mount
Gewicht	810 g

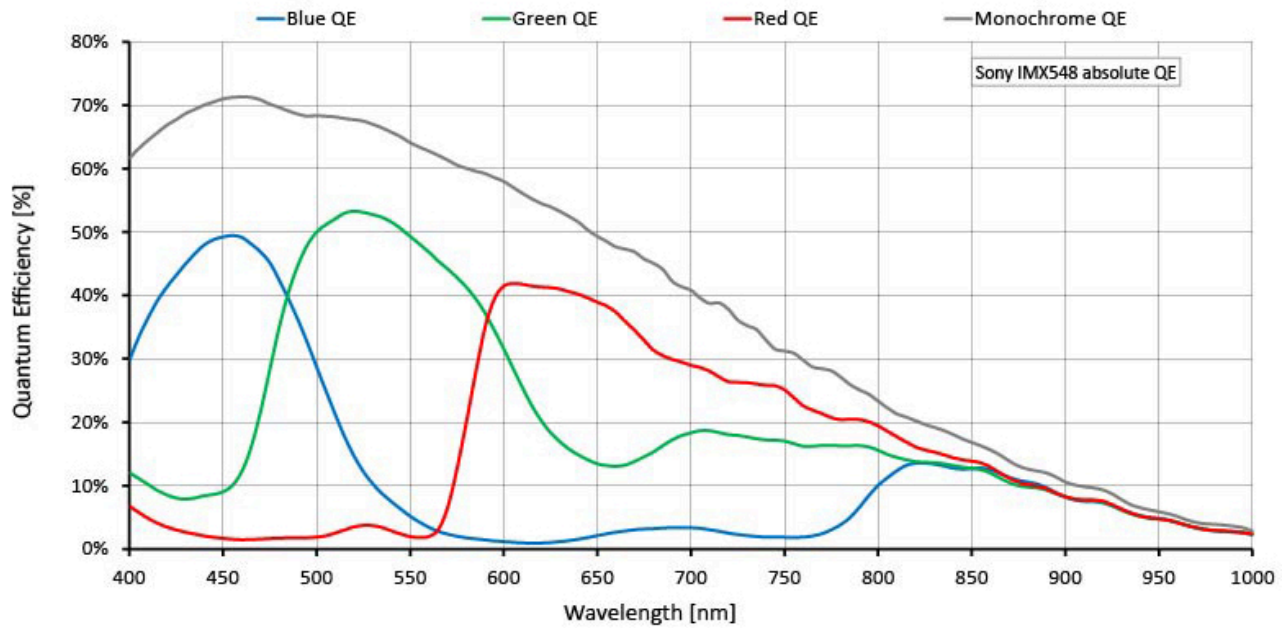
Onboard-Speicher und FPGA

Bildpuffer (RAM)	256 KByte
Nichtflüchtiger Speicher (Flash)	1024 KByte

Schnittstellen

Digitale Schnittstelle	IEEE 802.3 1000BASE-T
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Quanteneffizienz



Technische Zeichnung

Alecs Main Housing with Lens Tube LT4649

