

VAX-50M.I.NVX

5 Megapixel, Monochrome, NVIDIA Jetson Xavier NX

Article number: 11702240

Overview

- Sony IMX250
- 2448 x 2048 px, 2/3" CMOS, 77 fps
- 6-Core NVIDIA Carmel ARM
- 384 Core NVIDIA Volta GPI
- 8 GB 128-bit LPDDR4x
- Gigabit Ethernet, USB 3.0, RS232



Technical data

Processor data

Processor configuration	NVIDIA Jetson Xavier NX
GPU data	384 Core Volta GPU
CPU data	6-Core Carmel ARM
AI data	2 x NVDLA Engines
Memory RAM	8 GB LPDDR4x
Memory Flash	16 GB eMMC 5.1

Sensor information

Sensor	Sony IMX250 Gen2
Mono/Color	Mono
Sensor type	2/3" CMOS
Shutter type	Global shutter
Resolution	2448 × 2048 px
Pixel size	3.45 × 3.45 µm
Exposure time	0.001 ... 60000 ms

Data quality (EMVA 1288 typical)

Dark noise	5.26 e-
Saturation capacity	10562 e-
Dynamic range	65.1 dB
Signal-to-noise ratio	40.2 dB
Quantum efficiency	60.7 % @ 535 nm

Acquisition formats

Image formats, interface frame rate max.	Full Frame, 2448 × 2048 px, max. 73 fps Binning 2×2, 1224 × 1024 px, max. 77 fps Binning 2×1, 1224 × 2048 px, max. 77 fps Binning 1×2, 2448 × 1024 px, max. 77 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 2448 × 2048 px, max. 77 fps
Pixel formats	Mono8 Mono10 Mono12 Mono12 Packed

Image preprocessing

Analog controls	Gain (0 ... 48 dB) Offset (0 ... 255 LSB 12 Bit)
-----------------	---

Color models	Mono
--------------	------

Camera features

Auto Functions	Exposure Auto Gain Auto
Image Pre-processing	Image Flipping (X/Y) LUT / Gamma
Acquisition / Interface	Burst Mode Adjustable Framerate Short Exposure Time Enable Device Link Throughput Limit Internal Image Buffer
Synchronization	free running trigger
Trigger sources	Hardware Software ActionCommand
Trigger delay	0 ... 2 sec, tracking and buffering of up to 256 trigger signals

VAX-50M.I.NVX

5 Megapixel, Monochrome, NVIDIA Jetson Xavier NX

Article number: 11702240

Technical data

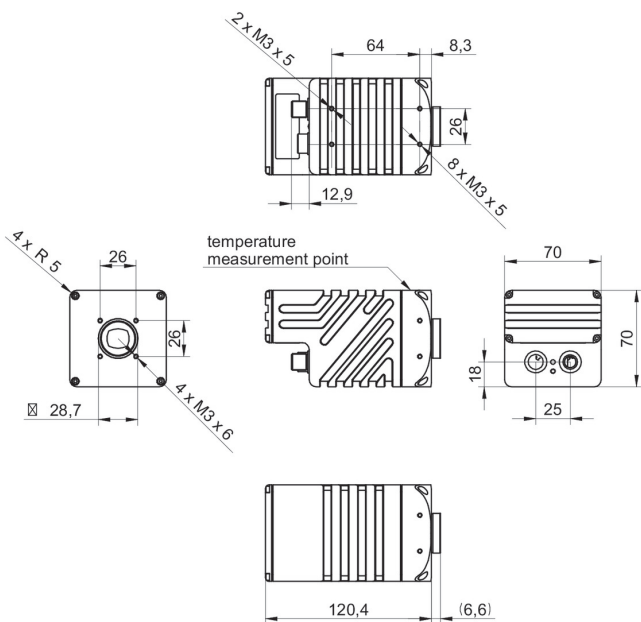
Camera features

Process Synchronization	Events Timer Trigger Delay Debouncer Counter Sequencer Trigger via Action CMD (GigE) Additional Output Modes (e.g. Trigger Ready) PWM (PWM Duration / PWM Duty Cycle) 4 power outputs with up to 120 W (max. 48 V / 2.5 A) Selectable Output format (e.g. Tri State, Push Pull) Chunk data inside transferred image Encoder support via Counter End trigger source
Additional Functions	User Set Integrated temperature sensor Readable additional information (e.g. sensor information) Save Custom Data
Internal image buffer	445 MB 31 images (Trigger Mode) 1 image (Free Running Mode)

Interfaces and connectors

Data interface	GigE USB 3.0 RS232
Process interface	M12 / 12 pins a-coded (SACC-CI-M12MS-12CON-L180)
Power supply	via M12/12 pins a-coded

Dimension drawing



Mechanical data

Lens mount	C-mount
Width	70 mm
Height	70 mm
Depth	120 mm
Weight	≤ 650 g
Material	aluminum, hard-anodized

Electrical data

Power consumption	approx. 17,9 W @ 73 fps
-------------------	-------------------------

Environmental conditions

Operating temperature	0 ... +60 ° @ T = measurement point
Humidity	10 ... 90 % (non-condensing)
Protection class	IP 65 (with mounted tube and cable) IP 67 (with mounted tube and cable)

Digital I/Os

Lines	1 input line 4 power output lines with pulse width modulation (PWM) (max. 48 V / max. 2,5 A)
Output line sources	Off Exposure Active Timer1 Readout Active User0 User1 User2 TriggerReady

Conformity

Conformity	RoHS EAC
------------	-------------

Principle

