

VCXU.2-123M

USB 3.0, 12,3 Megapixel, Monochrome

Article number: 11707456

Overview

- 4096 x 3000 px
- Sony IMX253
- 1.1" CMOS
- 31 fps
- USB 3.0



GEN*i*CAM



Technical data

Sensor information

Sensor	Sony IMX253 Gen2
Mono/Color	Mono
Sensor type	1.1" CMOS
Shutter type	Global shutter
Resolution	4096 × 3000 px
Pixel size	3.45 × 3.45 µm
Exposure time	0.001 ... 60000 ms

Data quality (EMVA 1288 typical)

Dark noise	2.31 e-
Saturation capacity	9097 e-
Dynamic range	69.8 dB
Signal-to-noise ratio	39.6 dB
Quantum efficiency	65.4 % @ 536 nm 65.2 % @ 533 nm

Acquisition formats

Image formats, interface frame rate max.	Full Frame, 4096 × 3000 px, max. 31 fps Binning 2×2, 2048 × 1500 px, max. 121 fps Binning 2×1, 2048 × 3000 px, max. 31 fps Binning 1×2, 4096 × 1500 px, max. 31 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 4096 × 3000 px, max. 31 fps
Pixel formats	Mono8 Mono10 Mono12 Mono12 Packed

Image preprocessing

Analog controls	Gain (0 ... 48 dB) Offset (0 ... 255 LSB 12 Bit)
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Color models	Mono
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Camera features

Basic Functions	Exposure Gain Trigger / Exposure Active (Flash) Binning 2x2 Partial Scan Offset Free Running Mode (Live Image)
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
Trigger delay	0 ... 2 sec, tracking and buffering of up to 256 trigger signals

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Camera features

Process Synchronization	Events Timer Trigger Delay Debouncer Counter Sequencer Trigger via Action CMD (GigE) Additional Output Modes (e.g. Trigger Ready) 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)
Calibration data	Integrated color correction matrix (3000 K, 5000 K, 6500 K, 9500 K, and user defined) Camera calibration data (user defined storage for intrinsic / extrinsic camera parameters, and geometry distortion values) Customer data storage (128 bytes user defined)
Internal image buffer	458 MB 13 images (Trigger Mode) 1 image (Free Running Mode)

Interfaces and connectors

Data interface	USB 3.0, Transfer Rate 5000 Mbits/sec, Connector: USB 3.0 Micro B
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Interfaces and connectors

Process interface	M8 / 8 pins (SACC-DSI-M8MS-8CON-M8-L180)
Power supply	via USB 3.0 interface
Mechanical data	
Lens mount	C-mount
Width	29 mm
Height	29 mm
Depth	38 mm
Weight	≤ 90 g
Material	zinc die casting, baked varnish (until 02-2020 nickel-chrome-plated), IP 40

Electrical data

Power consumption	approx. 3,4 W @ 31 fps
Operating voltage	5 VDC (via USB3.0 interface)

Non-volatile memory

Flash memory size	128 kB
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Environmental conditions

Operating temperature	0 ... +65 ° @ T = measurement point
Humidity	10 ... 90 % (non-condensing)
Protection class	IP 40

Digital I/Os

Lines	1 input line 1 output line 2 general purpose lines
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Conformity

Conformity	CE RoHS
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Dimension drawing

