

VCXU.2-31M

USB 3.0, 3,1 Megapixel, Monochrome

Article number: 11707451

Overview

- 2048 x 1536 px
- Sony IMX252
- 1/1.8" CMOS
- 120 fps
- USB 3.0



Picture similar



Technical data

Sensor information

Sensor	Sony IMX252 Gen2
Mono/Color	Mono
Sensor type	1/1.8" CMOS
Shutter type	Global shutter
Resolution	2048 × 1536 px
Pixel size	3.45 × 3.45 µm
Exposure time	0.001 ... 60000 ms

Data quality (EMVA 1288 typical)

Dark noise	2.13 e-
Saturation capacity	9497 e-
Dynamic range	70.6 dB
Signal-to-noise ratio	39.8 dB
Quantum efficiency	65.5 % @ 536 nm 65.2 % @ 533 nm

Acquisition formats

Image formats, interface frame rate max.	Full Frame, 2048 × 1536 px, max. 120 fps Binning 2×2, 1024 × 768 px, max. 120 fps Binning 2×1, 1024 × 1536 px, max. 120 fps Binning 1×2, 2048 × 768 px, max. 120 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 2048 × 1536 px, max. 120 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)
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Auto Functions	Exposure Auto Gain Auto
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Image Pre-processing	Image Flipping (X/Y) LUT / Gamma
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Acquisition / Interface	Burst Mode Adjustable Framerate Short Exposure Time Enable Device Link Throughput Limit Internal Image Buffer
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Synchronization	free running trigger
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Trigger sources	Hardware Software
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Trigger delay	0 ... 2 s, 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
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Additional Functions	User Set Integrated temperature sensor Readable additional information (e.g. sensor information)
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Calibration data	Camera calibration data (user defined storage for intrinsic / extrinsic camera parameters, and geometry distortion values) Customer data storage (128 bytes user defined)
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Internal image buffer	432 MB 48 images (Trigger Mode) 1 image (Free Running Mode)
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Interfaces and connectors

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

Electrical data

Power consumption	Approx. 3.0 W @ 120 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
Storage temperature	-20 ... +70 °C
Humidity	10 ... 90 % (non-condensing)
Protection class	IP 40 (with mounted lens and cable)

Digital I/Os

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

Conformity	CE RoHS UL recognized KC (R-R-BKR-VCXU2-51M)
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Dimension drawing

