

## VCXU-53M

USB 3.0, 5,3 Megapixel, Monochrome

Article number: 11165900

### Overview

- 2592 x 2048 px
- onsemi PYTHON5000
- 1" CMOS
- 73 fps
- USB 3.0



GEN*i*CAM



### Technical data

#### Sensor information

Sensor	onsemi PYTHON5000
Mono/Color	Mono
Sensor type	1" CMOS
Shutter type	Global shutter
Resolution	2592 × 2048 px
Pixel size	4.8 × 4.8 µm
Exposure time	0.02 ... 1000 ms

#### Data quality (EMVA 1288 typical)

Dark noise	11.29 e-
Saturation capacity	9260 e-
Dynamic range	57.7 dB
Signal-to-noise ratio	39.7 dB
Quantum efficiency	56.4 % @ 536 nm

#### Acquisition formats

Image formats, interface frame rate max.	Full Frame, 2592 × 2048 px, max. 73 fps Binning 2×2, 1296 × 1024 px, max. 73 fps Binning 2×1, 1296 × 2048 px, max. 73 fps Binning 1×2, 2592 × 1024 px, max. 73 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 2592 × 2048 px, max. 73 fps
Pixel formats	Mono8 Mono10

#### Image preprocessing

Analog controls	Gain (0 ... 12 dB) Offset (0 ... 63 LSB 10 Bit)
Color models	Mono

#### 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 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) Save Custom Data
Internal image buffer	471 MB 31 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
Process interface	M8 / 8 pins (SACC-DSI-M8MS-8CON-M8-L180)
Power supply	via USB 3.0 interface

#### Mechanical data

Lens mount	C-mount
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#### Mechanical data

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. 3,9 W @ 73 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 KC (R-R-BkR-VCXU-53M) EAC
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### Dimension drawing

