

VCXU-23M

USB 3.0, 2,3 Megapixel, Monochrome

Article number: 11151219

Overview

- 1920 x 1200 px
- Sony IMX174
- 1/1.2" CMOS
- 159 fps
- USB 3.0



Picture similar



Technical data

Sensor information

| | |
|---------------|--------------------|
| Sensor | Sony IMX174 Gen1 |
| Mono/Color | Mono |
| Sensor type | 1/1.2" CMOS |
| Shutter type | Global shutter |
| Resolution | 1920 × 1200 px |
| Pixel size | 5.86 × 5.86 μm |
| Exposure time | 0.045 ... 60000 ms |

Data quality (EMVA 1288 typical)

| | |
|-----------------------|-----------------|
| Dark noise | 6.94 e- |
| Saturation capacity | 31693 e- |
| Dynamic range | 72.2 dB |
| Signal-to-noise ratio | 45 dB |
| Quantum efficiency | 71.2 % @ 536 nm |

Acquisition formats

| | |
|---|---|
| Image formats, interface frame rate max. | Full Frame, 1920 × 1200 px, max. 159 fps Binning 2×2, 960 × 600 px, max. 166 fps Binning 2×1, 960 × 1200 px, max. 166 fps Binning 1×2, 1920 × 600 px, max. 166 fps |
| Image formats, acquisition frame rate max. (Burst Mode) | Full Frame, 1920 × 1200 px, max. 166 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

| | |
|-------------------------|--|
| 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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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) 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 | 469 MB 71 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 |
| 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. 2.8 W @ 159 fps |
| Operating voltage | 5 VDC (via USB3.0 interface) |

Non-volatile memory

| | |
|-------------------|--------|
| Flash memory size | 128 kB |
|-------------------|--------|

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 |
|-------|--|

Conformity

| | |
|------------|-------------------|
| Conformity | CE RoHS EAC |
|------------|-------------------|

Dimension drawing

