

## VCXU-24C

USB 3.0, 2,3 Megapixel, Color

Article number: 11165816

### Overview

- 1920 x 1200 px
- Sony IMX249
- 1/1.2" CMOS
- 38,5 fps
- USB 3.0



GEN*i*CAM



### Technical data

#### Sensor information

|               |                    |
|---------------|--------------------|
| Sensor        | Sony IMX249 Gen1   |
| Mono/Color    | Color              |
| Sensor type   | 1/1.2" CMOS        |
| Shutter type  | Global shutter     |
| Resolution    | 1920 × 1200 px     |
| Pixel size    | 5.86 × 5.86 µm     |
| Exposure time | 0.057 ... 60000 ms |

#### Acquisition formats

|                                                         |                                                                                                                                                                         |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image formats, interface frame rate max.                | Full Frame, 1920 × 1200 px, max. 38 fps<br>Binning 2×2, 960 × 600 px, max. 38 fps<br>Binning 2×1, 960 × 1200 px, max. 38 fps<br>Binning 1×2, 1920 × 600 px, max. 38 fps |
| Image formats, acquisition frame rate max. (Burst Mode) | Full Frame, 1920 × 1200 px, max. 38 fps<br>Full Frame, 1920 × 1200 px, max. 38 fps<br>Full Frame, 1920 × 1200 px, max. 38 fps                                           |
| Pixel formats                                           | BayerRG8<br>BayerRG10<br>BayerRG12<br>BayerRG12 Packed<br>Mono8<br>Mono10<br>Mono12<br>Mono12 Packed<br>RGB8<br>BGR8                                                    |

#### Image preprocessing

|                 |                                                     |
|-----------------|-----------------------------------------------------|
| Analog controls | Gain (0 ... 48 dB)<br>Offset (0 ... 255 LSB 12 Bit) |
|-----------------|-----------------------------------------------------|

#### Image preprocessing

|              |                          |
|--------------|--------------------------|
| Color models | Mono<br>Raw Bayer<br>RGB |
|--------------|--------------------------|

#### Camera features

|                         |                                                                                                                                               |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Basic Functions         | Exposure<br>Gain / Color Gain<br>Trigger / Exposure Active (Flash)<br>Binning 2x2<br>Partial Scan<br>Offset<br>Free Running Mode (Live Image) |
| Auto Functions          | Exposure Auto<br>Gain Auto<br>White Balance Auto<br>Color Transformation Auto                                                                 |
| Image Pre-processing    | Image Flipping (X/Y)<br>Color Processing (RGB, BGR, Mono)<br>Color Enhancement (with optimized ColorTransformationMatrix)<br>LUT / Gamma      |
| Acquisition / Interface | Burst Mode<br>Adjustable Framerate<br>Device Link Throughput Limit<br>Internal Image Buffer                                                   |
| Synchronization         | free running<br>trigger                                                                                                                       |
| Trigger sources         | Hardware<br>Software                                                                                                                          |
| Trigger delay           | 0 ... 2 sec, tracking and buffering of up to 256 trigger signals                                                                              |

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#### Camera features

|                         |                                                                                                                                                                                                                                                 |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Process Synchronization | Events<br>Timer<br>Trigger Delay<br>Debouncer<br>Counter<br>Sequencer<br>Trigger via Action CMD (GigE)<br>Additional Output Modes (e.g. Trigger Ready)<br>Chunk data inside transferred image<br>Encoder support via Counter End trigger source |
| Additional Functions    | User Set<br>Integrated temperature sensor<br>Readable additional information (e.g. sensor information)<br>Save Custom Data                                                                                                                      |
| Internal image buffer   | 469 MB<br>71 images (Trigger Mode)<br>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. 2,4 W @ 38 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<br>1 output line<br>2 general purpose lines |
|-------|----------------------------------------------------------|

#### Conformity

|            |                   |
|------------|-------------------|
| Conformity | CE<br>RoHS<br>EAC |
|------------|-------------------|

### Dimension drawing

