

V CXU.2-31C

USB 3.0, 3,1 Megapixel, Color

Article number: 11707452

Overview

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



Picture similar



GEN<i>i>CAM



Technical data

Sensor information

| | |
|---------------|--------------------|
| Sensor | Sony IMX252 Gen2 |
| Mono/Color | Color |
| 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 | 2.06 e- |
| Saturation capacity | 9464 e- |
| Dynamic range | 70.8 dB |
| Signal-to-noise ratio | 39.8 dB |
| Quantum efficiency | 47.5 % @ 465 nm 57.7 % @ 536 nm 53.2 % @ 631 nm 46.2 % @ 467 nm 58.5 % @ 533 nm 51.6 % @ 630 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 |
| Image formats, acquisition frame rate max. (Burst Mode) | Binning 1×2, 2048 × 768 px, max. 120 fps Full Frame, 2048 × 1536 px, max. 120 fps |

Acquisition formats

| | |
|---------------|----------------------------------------------------------------------------------------------------------------------|
| Pixel formats | BayerRG8 BayerRG10 BayerRG12 BayerRG12 Packed Mono8 Mono10 Mono12 Mono12 Packed RGB8 BGR8 |
|---------------|----------------------------------------------------------------------------------------------------------------------|

Image preprocessing

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|-----------------|-----------------------------------------------------|
| Analog controls | Gain (0 ... 48 dB) Offset (0 ... 255 LSB 12 Bit) |
| Color models | Mono Raw Bayer RGB |

Camera features

| | |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Basic Functions | Exposure Gain / Color Gain Trigger / Exposure Active (Flash) Binning 2x2 Partial Scan Offset Free Running Mode (Live Image) |
| Auto Functions | Exposure Auto Gain Auto White Balance Auto Color Transformation Auto |

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Camera features

| | |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Pre-processing | Image Flipping (X/Y) Color Processing (RGB, BGR, Mono) Color Enhancement (with optimized ColorTransformationMatrix) 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 s, tracking and buffering of up to 256 trigger signals |
| 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) |

Camera features

| | |
|-----------------------|-------------------------------------------------------------------|
| Internal image buffer | 432 MB 48 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 |

Electrical data

| | |
|-------------------|------------------------------|
| Power consumption | Approx. 3.2 W @ 120 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 |
| 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 |
|-------|----------------------------------------------------------|

Conformity

| | |
|------------|-----------------------------|
| Conformity | CE RoHS UL recognized |
|------------|-----------------------------|

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Dimension drawing

