

VCXG-204M

Gigabit Ethernet, 20.1 Megapixel, Monochrome

Article number: 11702866

Overview

- 4480 x 4496 px
- Sony IMX541
- 1.1" CMOS
- 6 fps
- Gigabit Ethernet



Picture similar



GEN<i>i>CAM



Technical data

Sensor information

| | |
|---------------|--------------------|
| Sensor | Sony IMX541 Gen4 |
| Mono/Color | Mono |
| Sensor type | 1.2" CMOS |
| Shutter type | Global shutter |
| Resolution | 4480 × 4496 px |
| Pixel size | 2.74 × 2.74 μm |
| Exposure time | 0.001 ... 60000 ms |

Data quality (EMVA 1288 typical)

| | |
|-----------------------|--|
| Dark noise | 2.28 e- |
| Saturation capacity | 9038 e- |
| Dynamic range | 69.8 dB |
| Signal-to-noise ratio | 39.6 dB |
| Quantum efficiency | 71.1 % @ 536 nm 1 % @ 1041 nm 18.9 % @ 840 nm 7.4 % @ 930 nm 67.1 % @ 406 nm |

Acquisition formats

| | |
|--|--|
| Image formats, interface frame rate max. | Full Frame, 4480 × 4496 px, max. 6 fps Binning 2×2, 2240 × 2248 px, max. 23 fps Binning 2×1, 2240 × 4496 px, max. 6 fps Binning 1×2, 4480 × 2248 px, max. 6 fps |
|--|--|

| | |
|---|--|
| Image formats, acquisition frame rate max. (Burst Mode) | Full Frame, 4480 × 4496 px, max. 6 fps |
|---|--|

Acquisition formats

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

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Camera features

| | |
|-------------------------|---|
| Trigger sources | Hardware Software ActionCommand |
| 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) Save Custom Data |
| Internal image buffer | 231 MB 4 image (Trigger Mode) 1 image (Free Running Mode) |

Interfaces and connectors

| | |
|-------------------|---|
| Data interface | Gigabit Ethernet, Transfer rate 1000 Mbits/sec, Fast Ethernet, Transfer Rate 100 Mbits/sec, Connector: 8P8C Modular Jack (RJ45), screwable TYPE090 (according to GigE Vision Mechanical Supplement) |
| Process interface | M8 / 8 pins (SACC-DSI-M8MS-8CON-M8-L180) |
| Power supply | via M8/8 pins or Power over Ethernet (PoE) |

Mechanical data

| | |
|------------|---------------------------------|
| Lens mount | C-mount |
| Width | 29 mm |
| Height | 29 mm |
| Depth | 49 mm |
| Weight | ≤ 120 g |
| Material | zinc die casting, baked varnish |

Electrical data

| | |
|--------------------------|--|
| Voltage supply range +Vs | 12 ... 24 V DC (external power supply) 36 ... 57 V DC (Power over Ethernet) |
| Power consumption | Approx. 2.9 W @ 12 VDC and 6 fps Approx. 3.6 W @ 48 VDC (PoE) and 6 fps |

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 |
| Output line sources | Off Exposure Active Timer1 Readout Active User0 User1 User2 TriggerReady |

Conformity

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

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Dimension drawing

