

VCXG-14SWIR.XC

Gigabit Ethernet, 1.3 Megapixel, Monochrome

Article number: 11706164

Overview

- 1296 x 1032 px
- Sony IMX990
- 1/2" CMOS
- 92 fps
- Gigabit Ethernet
- Spectrum: Visible + SWIR (400–1700 nm)

ATTENTION: This product is subject to statutory export control regulations and may require written information on intended end use and final destination! Dual Use Classification ECCN/AL: 6A003B



Picture similar



GEN<i>i>CAM



Technical data

Sensor information

| | |
|---------------|--------------------|
| Sensor | Sony IMX990 |
| Mono/Color | SWIR |
| Sensor type | 1/2" CMOS |
| Shutter type | Global shutter |
| Resolution | 1296 × 1032 px |
| Pixel size | 5 × 5 μm |
| Exposure time | 0.001 ... 60000 ms |

Data quality (EMVA 1288 typical)

| | |
|-----------------------|---------------|
| Dark noise | 300 e- |
| Saturation capacity | 140000 e- |
| Dynamic range | 57 dB |
| Signal-to-noise ratio | 51 dB |
| Quantum efficiency | 70 % @ 536 nm |

Acquisition formats

| | |
|---|---|
| Image formats, interface frame rate max. | Full Frame, 1296 × 1032 px, max. 92 fps Binning 2×2, 648 × 516 px, max. 97 fps Binning 2×1, 648 × 1032 px, max. 97 fps Binning 1×2, 1296 × 516 px, max. 97 fps |
| Image formats, acquisition frame rate max. (Burst Mode) | Full Frame, 1296 × 1032 px, max. 97 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 Defect Pixel Correction (static/list, dynamic/threshold) |
| 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 ActionCommand |
| Trigger delay | 0 ... 2 s, tracking and buffering of up to 256 trigger signals |

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Camera features

| | |
|-------------------------|---|
| Process Synchronization | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> User Set Integrated temperature sensor (InHouse and Sensor) Readable additional information (e.g. sensor information) |
| Calibration data | <ul style="list-style-type: none"> Camera calibration data (user defined storage for intrinsic / extrinsic camera parameters, and geometry distortion values) Customer data storage (128 bytes user defined) |
| Internal image buffer | <ul style="list-style-type: none"> 115 MB 8 images (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 |

Mechanical data

| | |
|------------|-------------------------|
| Lens mount | C-mount |
| Width | 36 mm |
| Height | 36 mm |
| Depth | 46.1 mm |
| Weight | ≤ 110 g |
| Material | aluminum, baked varnish |

Electrical data

| | |
|--------------------------|--|
| Voltage supply range +Vs | 12 ... 24 V DC (external power supply) |
| Power consumption | Approx. 2.1 W @ 12 VDC and 71 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 | <ul style="list-style-type: none"> 1 input line 1 output line 2 general purpose lines |
| Output line sources | <ul style="list-style-type: none"> Off Exposure Active Timer1 Readout Active UserOutput 1-3 TriggerReady |

Conformity

| | |
|------------|---|
| Conformity | <ul style="list-style-type: none"> CE UL recognized RoHS |
|------------|---|

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Dimension drawing

