

## VLXT-31C.I.JP

Gigabit Ethernet, 3,1 Megapixel, Color

Article number: 11701723

### Overview

- 2048 × 1536 px
- Sony IMX252
- 1/1.8" CMOS
- 216 fps
- 10 GigE
- JPEG



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	2.11 e-
Saturation capacity	9329 e-
Dynamic range	70.5 dB
Signal-to-noise ratio	39.7 dB
Quantum efficiency	46.1 % @ 465 nm 58 % @ 536 nm 54 % @ 631 nm 45.3 % @ 467 nm 57.9 % @ 533 nm 53.4 % @ 630 nm

#### Acquisition formats

Image formats, interface frame rate max.	Full Frame, 2048 × 1536 px, max. 216 fps Binning 2×2, 1024 × 768 px, max. 216 fps Binning 2×1, 1024 × 1536 px, max. 216 fps Binning 1×2, 2048 × 768 px, max. 216 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 2048 × 1536 px, max. 216 fps

#### Acquisition formats

Pixel formats	BayerRG8 BayerRG10 BayerRG12 BayerRG12 Packed Mono8 Mono10 Mono12 Mono12 Packed RGB8 BGR8 YCbCr422
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#### Image preprocessing

Analog controls	Gain (0 ... 48 dB) Offset (0 ... 255 LSB 12 Bit)
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Color models	Mono Raw Bayer RGB BGR
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Image processing	JPEG
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#### Camera features

Basic Functions	Exposure Gain / Color Gain Trigger / Exposure Active (Flash) Binning 2x2 Partial Scan Offset Free Running Mode (Live Image) Multi ROI
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### Camera features

Auto Functions	Exposure Auto Gain Auto White Balance Auto Color Transformation Auto
Image Pre-processing	Image Flipping (X/Y) Color Processing (RGB, BGR, Mono) Advanced 5x5 Color Processing (RGB, BGR, Mono) Color Enhancement (with optimized ColorTransformationMatrix) LUT / Gamma JPEG Image Compression Edge Sharpening Noise Reduction
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 sec, tracking and buffering of up to 256 trigger signals
Process Synchronization	Events Timer Trigger Delay Debouncer Counter Sequencer Trigger via Action CMD (GigE) Action CMD Request ID Trigger ID inside Chunk Additional Output Modes (e.g. Trigger Ready) PWM (PWM Duration / PWM Duty Cycle) Selectable Output format (e.g. Tri State, Push Pull) Chunk data inside transferred image Encoder support via Counter End trigger source 4 power outputs with up to 120 W (max. 48 V / 2.5 A)
Time synchronization IEEE 1588	IEEE 1588 / Master and Slave function IEEE 1588 / Scheduled Action CMD IEEE 1588 / Synchronized Acquisition Framerate
Additional Functions	User Set Integrated temperature sensor Readable additional information (e.g. sensor information) Save Custom Data
Lens control	Corning liquid lens

### Camera features

Sequencer	Automated control for series of images using different sets of parameters
Sequencer parameter	Exposure time gain factor output line ROI Offset x ROI Offset y
Internal image buffer	1024 MB 330 images (Trigger Mode) 1 image (Free Running Mode)

### Interfaces and connectors

Data interface	10 Gigabit Ethernet, Transfer rate 10000 Mbits/sec, Gigabit Ethernet, Transfer rate 1000 Mbits/sec, Fast Ethernet, Transfer rate 100 Mbits/sec, Connector: M12 / 8-pol x-coded (SACC-CI-M12FS-8CON-L180-10G)
Process interface	M12 / 12 pins a-coded (SACC-CI-M12MS-12CON-L180)
Power supply	via M12/12 pins a-coded

### Mechanical data

Lens mount	C-mount
Width	60 mm
Height	60 mm
Depth	99.7 mm
Weight	≤ 485 g
Material	aluminum

### Electrical data

Voltage supply range +Vs	19.2 ... 28.8 V DC (external power supply)
Power consumption	approx. 10.0 W @ 24 VDC and 216 fps

### Non-volatile memory

Flash memory size	128 kB
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### Environmental conditions

Operating temperature	0 ... +60 ° @ T = measurement point
Humidity	10 ... 90 % (non-condensing)
Protection class	IP 40 IP 54 (with mounted tube and cable) IP 65 (with mounted tube and cable) IP 67 (with mounted tube and cable)

### Digital I/Os

Lines	2 input lines 4 power output lines with pulse width modulation (PWM) (max. 48 V / max. 2.5 A) RS232
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### Conformity

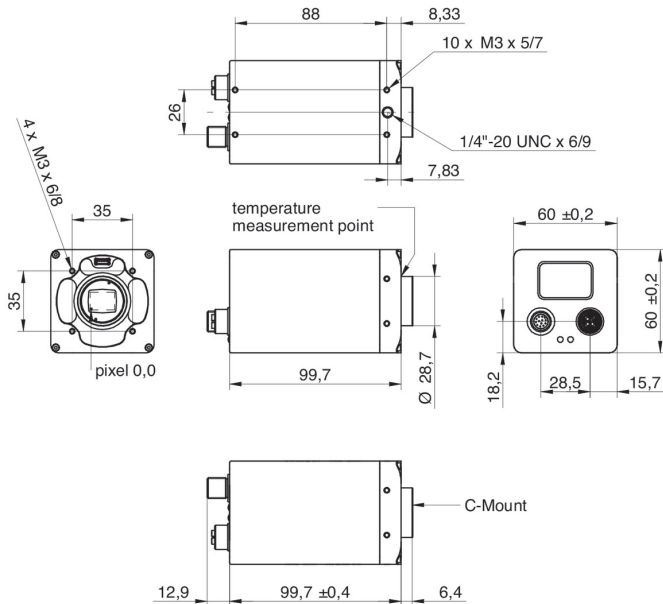
Conformity	CE RoHS EAC UL recognized
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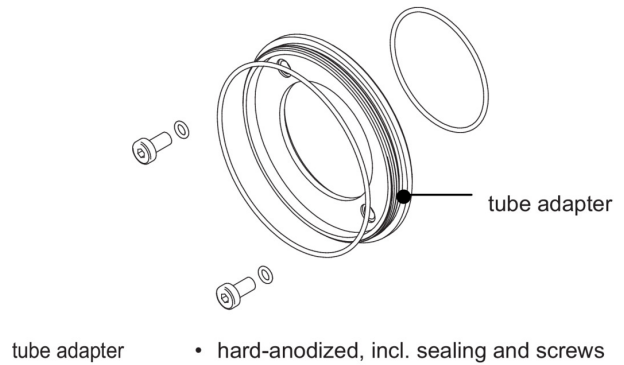
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### Dimension drawing



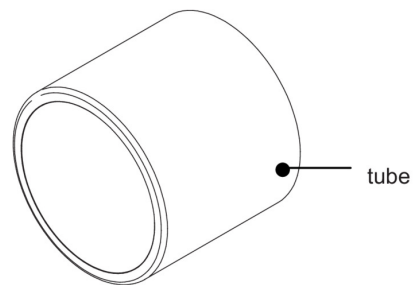
### Principle

Optional accessories for protection class IP 65/67:



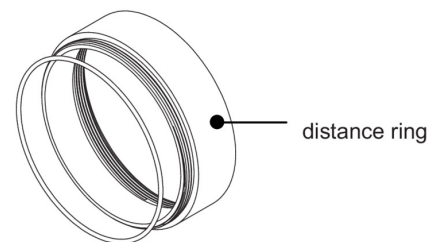
- hard-anodized, incl. sealing and screws  
Ø 49.5 mm (VCXG.I 11185373)  
Ø 65 mm (VCXG.I 11185377)  
Ø 65 mm (VLXT 11193125)

tube



- hard-anodized, cover glass PMMA  
Ø 49.5 mm, length 44 mm (11185370)  
Ø 65 mm, length 58 mm (11185374)
- hard-anodized, tempered laminated safety glass  
Ø 49.5 mm, length 44 mm (11701124)  
Ø 65 mm, length 58 mm (11701125)

distance ring



- hard-anodized, incl. sealing  
Ø 49.5 mm, length 6 mm (11185372)  
Ø 49.5 mm, length 12 mm (11185371)  
Ø 49.5 mm, length 36 mm (11211571)
- hard-anodized, incl. sealing  
Ø 65 mm, length 6 mm (11185376)  
Ø 65 mm, length 12 mm (11185375)  
Ø 65 mm, length 36 mm (111988906)