

# VLXT-81M.I

Gigabit Ethernet, 8,0 Megapixel, Monochrome

Article number: 11704864

## Overview

- 2848 × 2832 px
- Sony IMX536
- 2/3" CMOS
- 150 fps
- 10 GigE
- Firmware update required to use RDMA



Picture similar



GEN*i*CAM



## Technical data

### Sensor information

Sensor	Sony IMX536 Gen4
Mono/Color	Mono
Sensor type	2/3" CMOS
Shutter type	Global shutter
Resolution	2848 × 2832 px
Pixel size	2.74 × 2.74 μm
Exposure time	0.001 ... 60000 ms

### Data quality (EMVA 1288 typical)

Dark noise	2.11 e-
Saturation capacity	9486 e-
Dynamic range	70.7 dB
Signal-to-noise ratio	39.8 dB
Quantum efficiency	67.6 % @ 535 nm 67.8 % @ 533 nm

### Acquisition formats

Image formats, interface frame rate max.	Full Frame, 2848 × 2832 px, max. 150 fps Binning 2×2, 1424 × 1416 px, max. 172 fps Binning 2×1, 1424 × 2832 px, max. 172 fps Binning 1×2, 2848 × 1416 px, max. 172 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 2848 × 2832 px, max. 172 fps
Pixel formats	Mono8 Mono10 Mono12 Mono12 Packed

### Image preprocessing

Analog controls	Gain (0 ... 48 dB) Offset (0 ... 255 LSB 12 Bit)
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### Image preprocessing

Color models	Mono
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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
Auto Functions	Exposure Auto Gain Auto
Image Pre-processing	Image Flipping (X/Y) LUT / Gamma Shading Correction 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 s, tracking and buffering of up to 256 trigger signals

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### Camera features

Process Synchronization	<ul style="list-style-type: none"> <li>Events</li> <li>Timer</li> <li>Trigger Delay</li> <li>Debouncer</li> <li>Counter</li> <li>Sequencer</li> <li>Trigger via Action CMD (GigE)</li> <li>Action CMD Request ID</li> <li>Trigger ID inside Chunk</li> <li>Additional Output Modes (e.g. Trigger Ready)</li> <li>PWM (PWM Duration / PWM Duty Cycle)</li> <li>Selectable Output format (e.g. Tri State, Push Pull)</li> <li>Chunk data inside transferred image</li> <li>Encoder support via Counter End trigger source</li> <li>4 power outputs with up to 120 W (max. 48 V / 2.5 A)</li> </ul>
Time synchronization IEEE 1588	<ul style="list-style-type: none"> <li>IEEE 1588 / Master and Slave function</li> <li>IEEE 1588 / Scheduled Action CMD</li> <li>IEEE 1588 / Synchronized Acquisition Framerate</li> </ul>
Additional Functions	<ul style="list-style-type: none"> <li>User Set</li> <li>Integrated temperature sensor</li> <li>Readable additional information (e.g. sensor information)</li> <li>Save Custom Data</li> </ul>
Lens control	<ul style="list-style-type: none"> <li>Corning liquid lens</li> </ul>
Internal image buffer	<ul style="list-style-type: none"> <li>1024 MB</li> <li>206 images (Trigger Mode)</li> <li>1 image (Free Running Mode)</li> </ul>

### Interfaces and connectors

Data interface	<ul style="list-style-type: none"> <li>10 Gigabit Ethernet, Transfer rate 10000 Mb/secs, Gigabit Ethernet, Transfer rate 1000 Mb/secs, Fast Ethernet, Transfer rate 100 Mb/secs, Connector: M12 / 8-pol x-coded (SACC-CI-M12FS-8CON-L180-10G)</li> </ul>
Process interface	<ul style="list-style-type: none"> <li>M12 / 12 pins a-coded (SACC-CI-M12MS-12CON-L180)</li> </ul>

### Interfaces and connectors

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, hard-anodized

### Electrical data

Voltage supply range +Vs	19.2 ... 28.8 V DC (external power supply)
Power consumption	Approx. 12.1 W @ 24 VDC and 243 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	<ul style="list-style-type: none"> <li>IP 40</li> <li>IP 54 (with mounted tube and cable)</li> <li>IP 65 (with mounted tube and cable)</li> <li>IP 67 (with mounted tube and cable)</li> </ul>

### Digital I/Os

Lines	<ul style="list-style-type: none"> <li>2 input lines</li> <li>4 power output lines with pulse width modulation (PWM) (max. 48 V / max. 2,5 A)</li> <li>RS232</li> </ul>
Output line sources	<ul style="list-style-type: none"> <li>Off</li> <li>Exposure Active</li> <li>Timer1</li> <li>Readout Active</li> <li>User0</li> <li>User1</li> <li>User2</li> <li>TriggerReady</li> </ul>

### Conformity

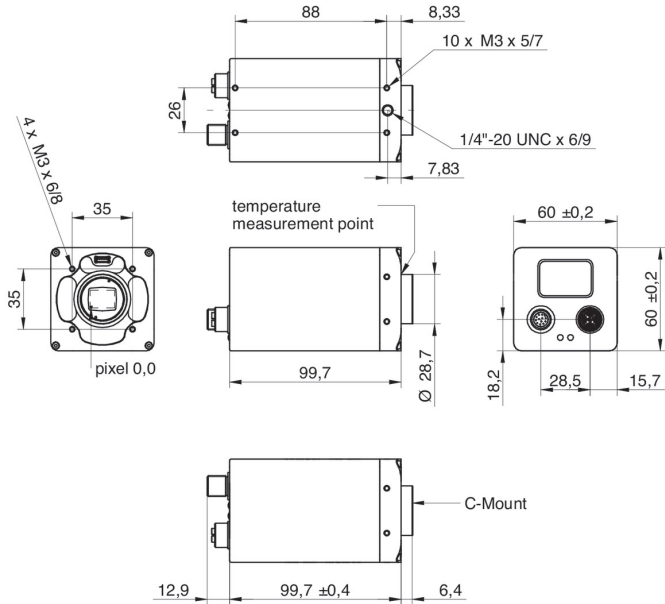
Conformity	<ul style="list-style-type: none"> <li>CE</li> <li>RoHS</li> </ul>
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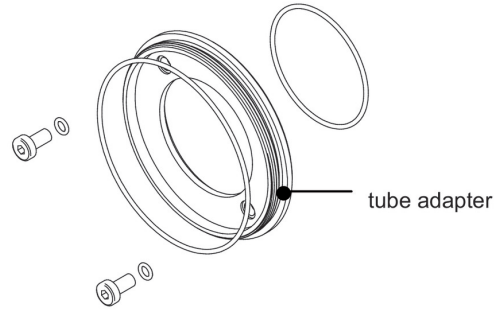
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## Dimension drawing



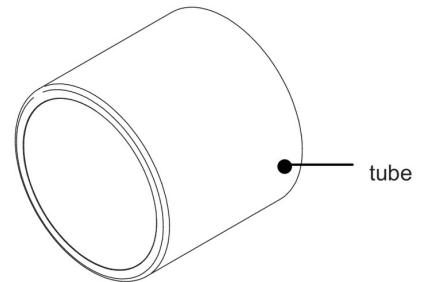
## Principle

Optional accessories for protection class IP 65/67:



tube adapter

- hard-anodized, incl. sealing and screws  
 Ø 49,5 mm (VCXG.I 11185373)  
 Ø 65 mm (VCXG.I 11185377)  
 Ø 95 mm (VCXG.I 11704311)  
 Ø 65 mm (VLXT 11193125)  
 Ø 95 mm (VLXT.EF 11704315)



tube

- hard-anodized, cover glass PMMA  
 Ø 49,5 mm, Length 44 mm (11185370)  
 Ø 65 mm, Length 58 mm (11185374)  
 Ø 95 mm, length 70 mm (11704312)
- hard-anodized, tempered laminated safety glass  
 Ø 49,5 mm, Length 44 mm (11701124)  
 Ø 65 mm, Length 58 mm (11701125)