

## VLXT-83UV.I

10 Gigabit Ethernet, 8.0 Megapixel, Ultraviolet

Article number: 11725745

### Overview

- 2848 × 2832 px
- Sony IMX487
- 2/3" CMOS
- 150 fps
- 10 GigE



GEN<i>i>CAM



### Technical data

#### Sensor information

|               |                    |
|---------------|--------------------|
| Sensor        | Sony IMX487        |
| Mono/Color    | UV                 |
| 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            | 2.5 e-        |
| Saturation capacity   | 9000 e-       |
| Dynamic range         | 70 dB         |
| Signal-to-noise ratio | 40 dB         |
| Quantum efficiency    | 53 % @ 536 nm |

#### Acquisition formats

|   |   |
|---|---|
| Image formats, interface frame rate max.                | Full Frame, 2848 × 2832 px, max. 150 fps<br>Binning 2×2, 1424 × 1416 px, max. 172 fps<br>Binning 2×1, 1424 × 2832 px, max. 172 fps<br>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<br>Mono10<br>Mono12<br>Mono12 Packed  |

#### Image preprocessing

|                 |   |
|-----------------|---|
| Analog controls | Gain (0 ... 48 dB)<br>Offset (0 ... 255 LSB 12 Bit) |
|-----------------|---|

#### Image preprocessing

|              |                                 |
|--------------|---------------------------------|
| Color models | Mono<br>Raw Bayer<br>RGB<br>BGR |
|--------------|---------------------------------|

#### Camera features

|                         |  |
|-------------------------|--|
| Basic Functions         | Exposure<br>Gain / Color Gain<br>Trigger / Exposure Active (Flash)<br>Binning 2x2<br>Partial Scan<br>Offset<br>Free Running Mode (Live Image)<br>Multi ROI |
| Auto Functions          | Exposure Auto<br>Gain Auto   |
| Image Pre-processing    | Image Flipping (X/Y)<br>LUT / Gamma<br>Shading Correction<br>Edge Sharpening<br>Noise Reduction  |
| Acquisition / Interface | Burst Mode<br>Adjustable Framerate<br>Short Exposure Time Enable<br>Device Link Throughput Limit<br>Internal Image Buffer                                  |
| Synchronization         | free running<br>trigger  |
| Trigger sources         | Hardware<br>Software<br>ActionCommand  |
| Trigger delay           | 0 ... 2 sec, tracking and buffering of up to 256 trigger signals   |

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## Technical data

### 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</li> <li>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>127 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/s, Gigabit Ethernet, Transfer rate 1000 Mb/s, Fast Ethernet, Transfer rate 100 Mb/s, 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. 12.7 W @ 24 VDC and 150 fps        |

### Non-volatile memory

|                   |        |
|-------------------|--------|
| Flash memory size | 128 kB |
|-------------------|--------|

### Environmental conditions

|                       |  |
|-----------------------|--|
| Operating temperature | 0 ... +60 ° @ T = measurement point  |
| Humidity              | 0 ... 90 % (non-condensing)  |
| Protection class      | <ul style="list-style-type: none"> <li>IP 40</li> <li>IP 54 (with mounted lens 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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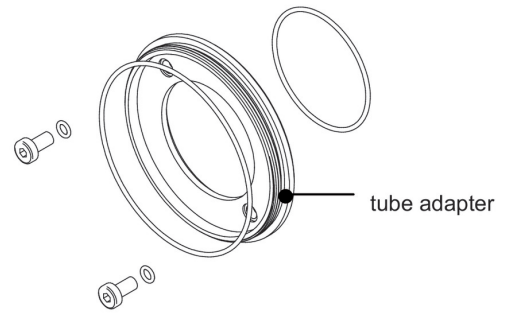
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### Dimension drawing



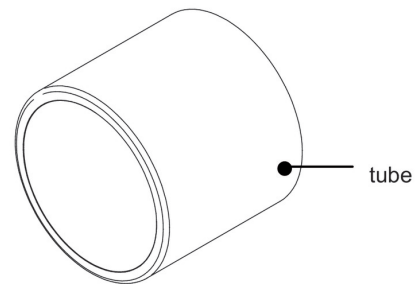
### Principle

Optional accessories for protection class IP 65/67:



tube adapter

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



tube

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