

VLXT-55C.I

Gigabit Ethernet, 5,0 Megapixel, Color

Article number: 11702302

Overview

- 2464 × 2048 px
- Sony IMX537
- 1/1.8" CMOS
- 243 fps
- 10 GigE



GEN*i*CAM



Technical data

Sensor information

Sensor	Sony IMX537 Gen4
Mono/Color	Color
Sensor type	1/1.8" CMOS
Shutter type	Global shutter
Resolution	2464 × 2048 px
Pixel size	2.74 × 2.74 µm
Exposure time	0.001 ... 60000 ms

Data quality (EMVA 1288 typical)

Dark noise	2.52 e-
Saturation capacity	9441 e-
Dynamic range	69.5 dB
Signal-to-noise ratio	39.8 dB
Quantum efficiency	44.3 % @ 465 nm 51.3 % @ 535 nm 39.7 % @ 630 nm 44.8 % @ 467 nm 52 % @ 533 nm

Acquisition formats

Image formats, interface frame rate max.	Full Frame, 2464 × 2048 px, max. 243 fps Binning 2×2, 1232 × 1024 px, max. 259 fps Binning 2×1, 1232 × 2048 px, max. 259 fps Binning 1×2, 2464 × 1024 px, max. 259 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 2464 × 2048 px, max. 259 fps

Acquisition formats

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

Analog controls	Gain (0 ... 48 dB) Offset (0 ... 255 LSB 12 Bit)
Color models	Mono Raw Bayer RGB BGR

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 White Balance Auto Color Transformation Auto

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Camera features

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 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 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
Sequencer	Automated control for series of images using different sets of parameters

Camera features

Sequencer parameter	Exposure time gain factor Output ROI Offset x ROI Offset y
Internal image buffer	1024 MB 206 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, 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	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

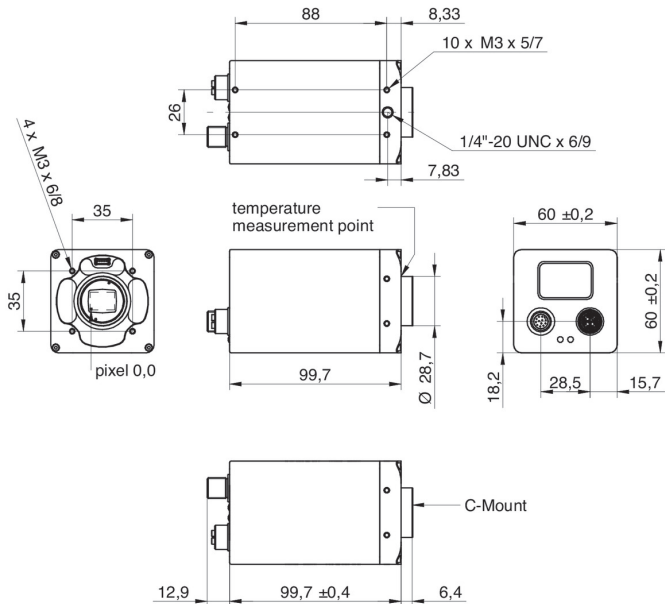
Conformity	CE RoHS UL recognized
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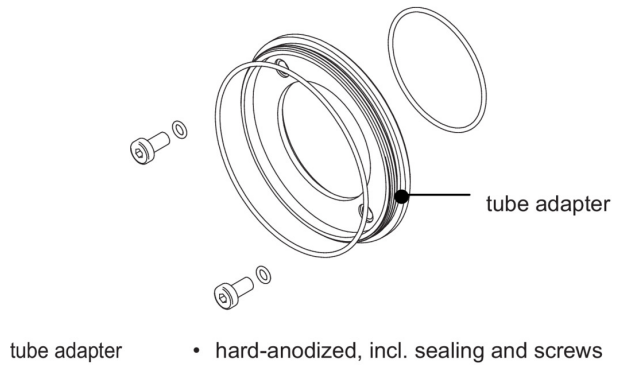
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Dimension drawing



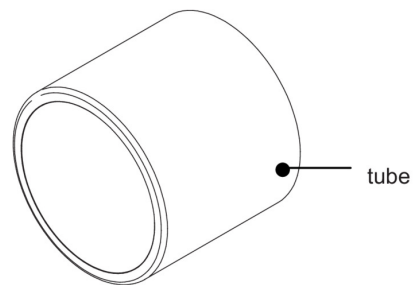
Principle

Optional accessories for protection class IP 65/67:



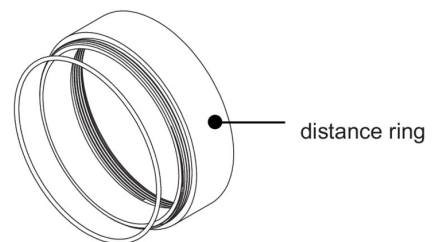
- hard-anodized, incl. sealing and screws
Ø 49.5 mm (VCXG.I 11185373)
Ø 65 mm (VCXG.I 11185377)
Ø 65 mm (VLXT 11193125)

tube adapter



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)