

VLXT-490C.I

Gigabit Ethernet, 49 Megapixel, Color

Article number: 11705803

Overview

- 7008 × 7000 px
- Gpixel GMAX3249
- 2.3" CMOS
- 23 fps
- 10 GigE



GEN*i*CAM



Technical data

Sensor information

Sensor	Gpixel GMAX3249
Mono/Color	Color
Sensor type	2.3" CMOS
Shutter type	Global shutter
Resolution	7008 × 7000 px
Pixel size	3.2 × 3.2 µm
Exposure time	0.02 ... 60000 ms

Data quality (EMVA 1288 typical)

Dark noise	5.4 e-
Saturation capacity	10453 e-
Dynamic range	64.9 dB
Signal-to-noise ratio	40.2 dB
Quantum efficiency	47 % @ 465 nm 54 % @ 536 nm 38 % @ 631 nm 47.1 % @ 467 nm 55 % @ 533 nm 36.2 % @ 630 nm

Acquisition formats

Image formats, interface frame rate max.	Full Frame, 7008 × 7000 px, max. 23 fps Binning 2×2, 3504 × 3500 px, max. 23 fps Binning 2×1, 3504 × 7000 px, max. 23 fps Binning 1×2, 7008 × 3500 px, max. 23 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 7008 × 7000 px, max. 23 fps

Acquisition formats

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

Analog controls	Gain (0 ... 44 dB) Offset (-256 ... 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

Camera features

Lens control	Corning liquid lens
Internal image buffer	1024 MB 21 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	M58-mount (F-mount, M42, C-mount via adapter)
Width	60 mm
Height	60 mm
Depth	103.8 mm
Weight	≤ 485 g
Material	aluminum

Electrical data

Voltage supply range +Vs	19.2 ... 28.8 V DC (external power supply)
Power consumption	approx. 14,2 W @ 24 VDC and 23 fps

Non-volatile memory

Flash memory size	128 kB
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Environmental conditions

Operating temperature	-30 ... +70 °C @ T = measurement point
Humidity	10 ... 90 % (non-condensing)
Protection class	IP 40

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
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Dimension drawing

