Baumer
Passion for Sensors

Industrial cameras / LX series

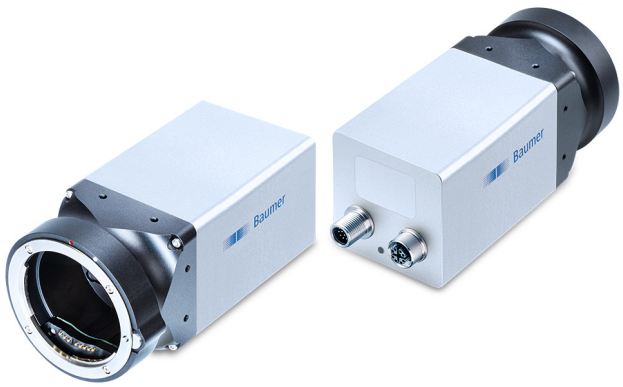
VLXT-490C.I.EF

Gigabit Ethernet, 49 Megapixel, Color

Article number: 11705805

Overview

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



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 e-
Saturation capacity	10000 e-
Dynamic range	66 dB
Signal-to-noise ratio	40 dB
Quantum efficiency	47 % @ 465 nm 54 % @ 535 nm 38 % @ 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, aquisition 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
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	Gain Auto Exposure Auto Color Transformation Auto White Balance Auto

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Camera features	
Image Pre-processing	Image Flipping (X/Y) Color Processing (RGB, BGR, Mono) Color Enhancement (with optimized ColorTransformationMatrix) LUT / Gamma Edge Sharpening Noise Reduction - Advanced 5x5 Color Processing (RGB, BGR, Mono) Shading Correction
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) RS232
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	Canon EF
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	Canon EF-mount
Width	60 mm
Height	60 mm
Depth	136.1 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. 14,3 W @ 24 VDC and 23 fps
Non-volatile memory	
Flash memory size	128 kB
Environmental conditions	
Operating temperature	-30 … +70 °C @ T = measurement point
Humidity	10 … 90 % (non-condensing)
Protection class	IP 40 (with mounted lens 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
Conformity	
Conformity	CE RoHS

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Dimension drawing