Baumer
Passion for Sensors

Industrial cameras / CX series

VCXU-50C

USB 3.0, 5 Megapixel, Color

Article number: 11151566

Overview

- 2448 x 2048 px
- Sony IMX250
- 2/3" CMOS
- 73 fps
- USB 3.0

Technical data

Sensor information	
Sensor	Sony IMX250 Gen2
Mono/Color	Color
Sensor type	2/3″ CMOS
Shutter type	Global shutter
Resolution	2448 × 2048 px
Pixel size	3.45 × 3.45 µm
Exposure time	0.001 … 60000 ms
Data quality (EMVA 1288 typical)	
Dark noise	2.14 e-
Saturation capacity	9510 e-
Dynamic range	70.6 dB
Signal-to-noise ratio	39.8 dB
Quantum efficiency	47.3 % @ 465 nm 57.9 % @ 536 nm 53.1 % @ 631 nm 45.9 % @ 467 nm 58.1 % @ 533 nm 53.1 % @ 630 nm
Acquisition formats	
Image formats, interface frame rate max.	Full Frame, 2448 × 2048 px, max. 73 fps Binning 2×2, 1224 × 1024 px, max. 76 fps Binning 2×1, 1224 × 2048 px, max. 76 fps Binning 1×2, 2448 × 1024 px, max. 76 fps
Image formats, aquisition frame rate max. (Burst Mode)	Full Frame, 2448 × 2048 px, max. 77 fps

Acquisition formats	
Pixel formats	BayerRG8 BayerRG10 BayerRG12 BayerRG12 Packed Mono8 Mono10 Mono12 Mono12 Packed RGB8 BGR8
Image preprocessing	
Analog controls	Gain (0 … 48 dB) Offset (0 … 255 LSB 12 Bit)
Color models	Mono Raw Bayer RGB
Camera features	
Basic Functions	Exposure Gain / Color Gain Trigger / Exposure Active (Flash) Binning 2x2 Partial Scan Offset Free Running Mode (Live Image)
Auto Functions	Exposure Auto Gain Auto White Balance Auto Color Transformation Auto

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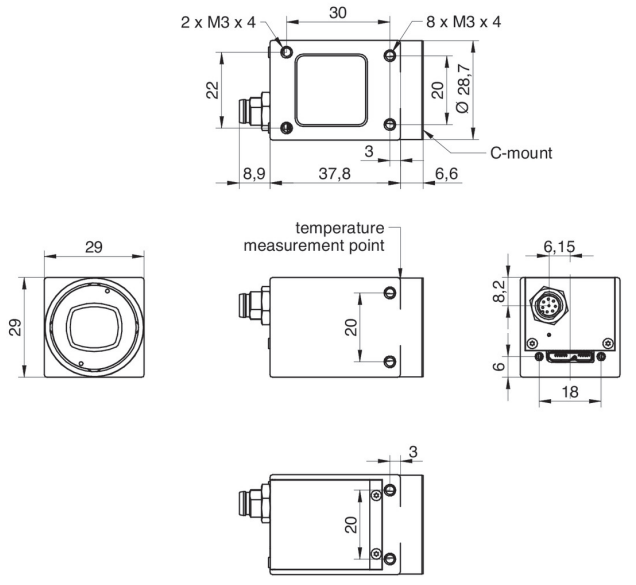
Camera features	
Image Pre-processing	Image Flipping (X/Y) Color Processing (RGB, BGR, Mono) Color Enhancement (with optimized ColorTransformationMatrix) LUT / Gamma
Acquisition / Interface	Burst Mode Adjustable Framerate Short Exposure Time Enable Device Link Throughput Limit Internal Image Buffer
Synchronization	free running trigger
Trigger sources	Hardware Software
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) Additional Output Modes (e.g. Trigger Ready) Chunk data inside transferred image Encoder support via Counter End trigger source
Additional Functions	User Set Integrated temperature sensor Readable additional information (e.g. sensor information) Save Custom Data
Internal image buffer	445 MB 31 images (Trigger Mode) 1 image (Free Running Mode)

Interfaces and connectors	
Data interface	USB 3.0, Transfer Rate 5000 Mbits/sec, Connector: USB 3.0 Micro B
Process interface	M8 / 8 pins (SACC-DSI-M8MS-8CON-M8-L180)
Power supply	via USB 3.0 interface
Mechanical data	
Lens mount	C-mount
Width	29 mm
Height	29 mm
Depth	38 mm
Weight	≤ 90 g
Material	zinc die casting, baked varnish (until 02-2020 nickel-chrome-plated), IP 40
Electrical data	
Power consumption	approx. 3,4 W @ 73 fps
Operating voltage	5 VDC (via USB3.0 interface)
Non-volatile memory	
Flash memory size	128 kB
Environmental conditions	
Operating temperature	0 … +65 ° @ T = measurement point
Humidity	10 … 90 % (non-condensing)
Protection class	IP 40
Digital I/Os	
Lines	1 input line 1 output line 2 general purpose lines
Conformity	
Conformity	CE RoHS KC (MISP-REI-BkR-VCXU-50M) EAC BIS-CRS (R-41207004)

Dimension drawing



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