mvBlueCOUGAR-X

Next generation GigE cameras

www.matrix-vision.de

Mini size maX performance

■ **compact industrial camera series with Gigabit Ethernet**

■ **quality CCD & CMOS sensors from VGA up to 5 megapixels**

■ **hardware preprocessing on board (FPGA)**

■ **highest resolution ADC**

■ **image memory 64 MB**

■ **micro-PLC for real-time sequencing (HRTC)**

mvBlueCOUGAR-X

more and up-to-date infos see ▼

GEN<i>CAM

GiGE® VISION

www.matrix-vision.com/mvBlueCOUGAR

MATRIX VISION presents its all new mvBlueCOUGAR-X.

The next generation GigE cameras combine the features X-tra small, low power, high performance, unique and economical with a superior image quality, suited for almost every applications. Due to its tiny size, an easy integration is possible in every environment.
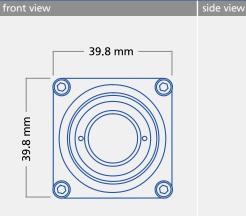
Hardware	
◗ Gigabit Ethernet interface (1000 Mbit/s with 100 Mbit/s compatibility)	◗ ADC resolution: CCD: 14 bits (14/12/8 bit transfer) CMOS: ADC on chip
◗ distances up to 100 meters without switch	◗ freely editable LUT
◗ 64 MB image memory	◗ color correction matrix
◗ smart I/O:	◗ real-time flat field correction
2 inputs (opto-isolated with current limiters) 5..24 V ± 1 V	◗ adjustable acquisition modes (frame rate vs. image quality)
4 outputs (high-side)	◗ timestamp for camera synchronization
up to 30 V and 700 mA (1.5 A total) direct drive output for high power flash or relays or actuators	◗ storable user parameters
◗ support for motorized lenses	◗ electronic mirror functionality:
◗ connectors:	CCD: horizontal CMOS: hor./vert.
RJ-45 Gigabit Ethernet with screw-locking	◗ weight without lens:
industry standard Hirose type 12-pin locking connector	approx. 110 g
◗ industrial power supply range 12..24 VDC	◗ perm. ambient temp.
◗ micro-PLC sequencer (HRTC) for time critical I/O and acquisition	operation: 0 to 45 °C / 30 to 80 % RH
control by defining a sequence of operating steps	storage: -20 to 60 °C / 20 to 90 % RH
◗ adjustable C-mount, CS-mount, S-mount (optional)	◗ size without lens (w x h x l) 39.8 x 39.8 x 35 mm

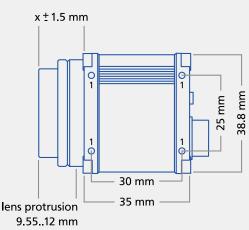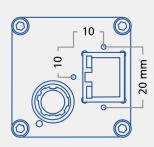| Software	
◗ Windows® and Linux® drivers (mvIMPACT Acquire)	◗ compatible with certified third-party GigE Vision® and GenICam™ applications
◗ comes with free mvIMPACT Base library	
◗ DirectShow® and Video for Linux driver	
◗ wide range of third-party software support see website http://www.matrix-vision.com/products/software.php	

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Available sensors

Model name	-120a	-120b	-122	-124	-125	-100w
Model variant	G/C*	G/C*	G/C*	G/C*	G/C*	G/C*
◗ resolution of active area	640 x 480	640 x 480	1280 x 964	1600 x 1200	2448 x 2050	752 x 480
◗ maximum frame rate	100 Hz	90 Hz	25 Hz	16 Hz	16 Hz	60 Hz
◗ sensor type	CCD	CCD	CCD	CCD	CCD	CMOS
◗ transfer type (CCD only)	full frame interline transfer	full frame interline transfer	full frame interline transfer	full frame interline transfer	full frame interline transfer	–
◗ shutter type (CMOS only)	–	–	–	–	–	full frame
◗ sensor category	1/3 "	1/2 "	1/3 "	1/1.8 "	2/3 "	1/3 "
◗ pixel size (width x height in [μm])	7.4 x 7.4	9.9 x 9.9	3.75 x 3.75	4.4 x 4.4	3.45 x 3.45	6 x 6
◗ readout type (CCD only)	progressive	progressive	progressive	progressive	progressive	–
◗ integration time	20 μs - 128 s	20 μs - 128 s	20 μs - 128 s	20 μs - 128 s	20 μs - 128 s	10 μs - 1 s
◗ overlap capabilities	yes	yes	yes	yes	yes	yes
◗ sensor supplier	Sony	Sony	Sony	Sony	Sony	Aptina
◗ sensor name	ICX414AL/AQ	ICX424AL/AQ	ICX445ALA/AQA	ICX274AL/AQ	ICX625AL/AQ	MT9V034
			* G = Gray C = Color			

Dimensional drawing

front view	side view	back view

39.8 mm
39.8 mm
diameter: 1: M2.5 x 4 mm

x ± 1.5 mm
25 mm
38.8 mm
30 mm
35 mm
lens protrusion 9.55..12 mm

10
10
20 mm

Image formats

◗ gray scale sensors   Mono8, Mono16 (LSB aligned), Mono12_Packed

◗ color sensors   RGB8_Packed (interpolation in camera), RGBA8_Packed, BayerGR8 (RAW; non-interpolated as well as RG, GB, BG), BayerGR16 (LSB aligned; non-interpolated as well as RG, GB, BG), YUV422_Packed (interpolation in camera), YUV444_Packed (interpolation in camera)

Accessories

◗ tripod adapter
◗ 12 V power supply with 12-pin connector optional: industrial power supply (24 V)
◗ I/O cabling, length up to 10 m
◗ angled I/O connector
◗ RJ45 with screw locking, length up to 100 m on request: screw locking cables with additional dust protection
◗ RJ45 angled screw locking connectors for space limited applications
◗ PCI Express® cards with (single or quad) Intel pro chip set supporting jumbo packets and interrupt moderation
◗ card with jumbo packet support

Application areas

◗ machine vision
◗ surveillance
◗ life science
◗ medical application
◗ microscopy

mvIMPACT Base package

◗ more than 120 image processing functions
◗ display graphics overlay
◗ image data handling
◗ file operations

FOR FREE!

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