

mvBlueLYNX-X

Compact intelligent camera series

An expert eye for your world



www.matrix-vision.de



- neXt generation versatile intelligent camera
- modular image sensor interface
- dual core: Cortex-A8 ARM CPU up to 1 GHz plus separate real-time DSP with video acceleration
- 256 RAM + Dual microSD card memory interface
- wide range of interfaces
- .NET compliant Mono software interface
- green automation: high-performance with low power consumption

mvBlueLYNX-X

more and up-to-date infos see ▼

www.matrix-vision.com/mvBlueLYNX-X

The mvBlueLYNX-X is the next generation of the successful MATRIX VISION intelligent camera product line.

The CPU core is based on the state-of-the-art

ARM technology with up to 1 GHz target clock and image processing acceleration by DSP coprocessor for parallel handling of multiple pixel and float data. The system is ideally suited

for the classical areas of machine vision, the large processing power and high-end display and graphics capability make it perfect for many other application areas.

Hardware

<ul style="list-style-type: none"> ▶ ARM Cortex-A8, up to 1 GHz (OMAP™ 37 series) ▶ DSP up to 620 MHz C64x L1: 32 KB D + 32 KB I L2: 256 KB ▶ SIMD NEON, 8 x 8 bit, VFPv3 ▶ memory: DDR RAM 256 MB FLASH internal microSD, externally accessible microSD ▶ S-mount, optional: C(S)-mount, I2C support for wet lens, support for motorized zoom lens (option) ▶ optional flashing LED ring light in different colors ▶ digital I/O: 2/4 opto-isolated ▶ IP65 as an option 	<ul style="list-style-type: none"> ▶ connectors: 100 Mbit Ethernet LAN 2x Hirose 12-pin #1 (male): RS-232, power supply, digital I/O #2 (female): VGA display (analog, resolution up to XGA), USB 2.0 host microSD card USB 2.0 on-the-go ▶ ADC resolution: 10 bits ▶ automatic gain control (AGC) ▶ automatic exposure control (AEC) ▶ industrial power supply range 12..24 VDC ▶ power consumption < 5 W ▶ size without lens (w x h x l): 85 x 55 x 35 mm ▶ permissible ambient temperature 0..50 °C
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Software

- ▶ operating system: Linux®
- ▶ interfaces: Mono for .NET applications, web server for remote control and MMI
- ▶ applications: OCR, Barcode, DataMatrix, etc.
- ▶ SDK for own algorithms and applications on request
- ▶ TI library for DSP preprocessing available

Application areas

- ▶ machine vision
- ▶ surveillance
- ▶ security
- ▶ life science
- ▶ medical application

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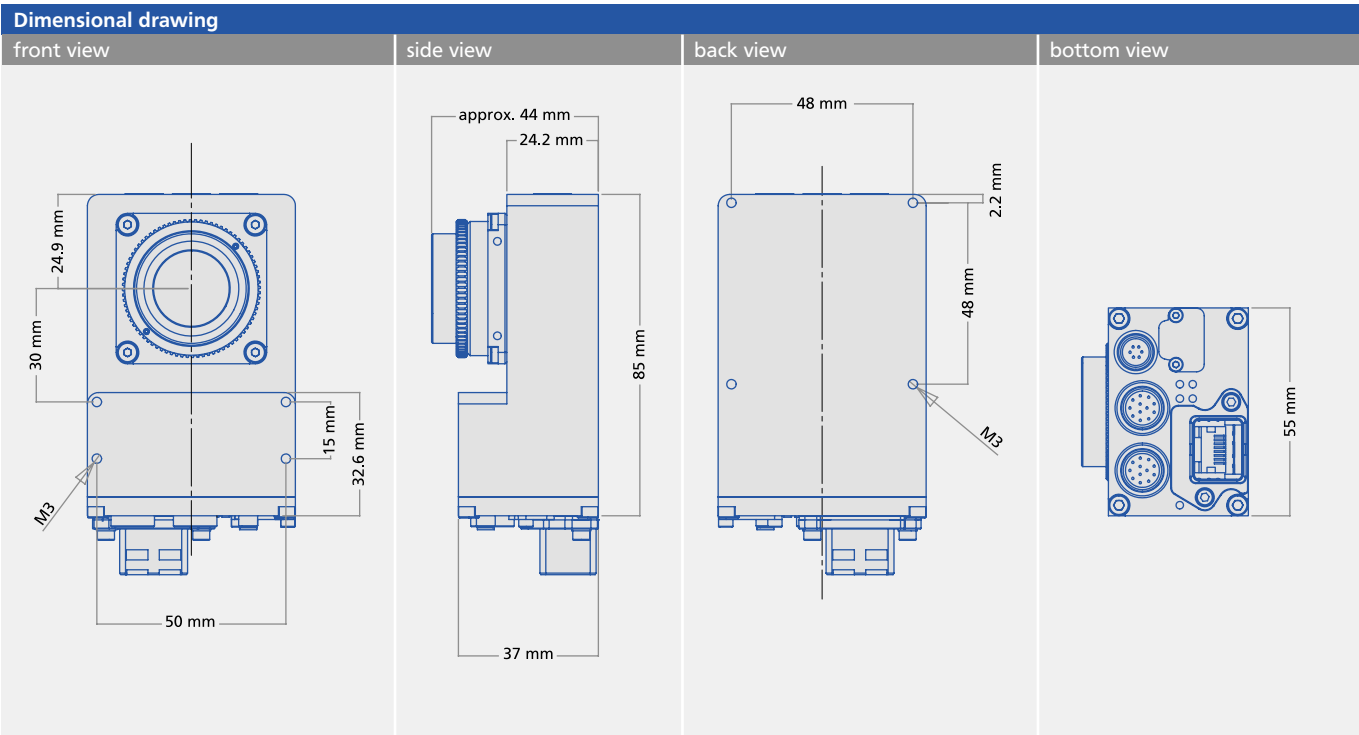
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VISION

Available sensors						
Model name (CCD)	-X120a	-X120b	-X122	-X123	-X124	-X125a
Model variant	G/C	G/C	G/C	G/C	G/C	G/C
	Gray/Color	Gray/Color	Gray/Color	Gray/Color	Gray/Color	Gray/Color
▶ resolution of sensor's active area	640 x 480	640 x 480	1280 x 964	1360 x 1024	1600 x 1200	2448 x 2050
▶ maximum frame rate [Hz]	104	104	31	30	28	10
▶ transfer type	full frame interline transfer	full frame interline transfer	full frame interline transfer	full frame interline transfer	full frame interline transfer	full frame interline transfer
▶ sensor size	1/3 "	1/2 "	1/3 "	1/2 "	1/1.8 "	2/3 "
▶ pixel size (width x height in [μm])	7.4 x 7.4	9.9 x 9.9	3.75 x 3.75	4.65 x 4.65	4.4 x 4.4	3.45 x 3.45
▶ readout type	progressive	progressive	progressive	progressive	progressive	progressive
▶ integration time	10 μs - 10 s	10 μs - 10 s	10 μs - 10 s	10 μs - 10 s	10 μs - 10 s	10 μs - 10 s
▶ overlap capabilities	yes	yes	yes	yes	yes	yes
▶ sensor manufacturer	Sony	Sony	Sony	Sony	Sony	Sony
▶ sensor name	ICX424AL/AQ	ICX414AL/AQ	ICX445ALA/AQA	ICX267AL/AK	ICX274AL/AQ	ICX655AL/AQ

Spectral characteristics of sensors see website.

Available sensors		
Model name (CMOS)	-X100w	-X102
Model variant	G/C	G/C
	Gray/Color	Gray/Color
▶ resolution of sensor's active area	752 x 480	1280 x 960
▶ maximum frame rate [Hz]	90	45
▶ transfer type	full frame rolling	full frame rolling
▶ sensor size	1/3 "	1/3 "
▶ pixel size (width x height in [μm])	6 x 6	3.75 x 3.75
▶ integration time	10 μs - ≤ 4 s	tbd
▶ overlap capabilities	only using internal trigger (sequentially using ext. trigger)	
▶ sensor manufacturer	Aptina	Aptina
▶ sensor name	MT9V034	MT9M021/31

Spectral characteristics of sensors see website.



Accessories
▶ diverse illuminations
▶ cabling
▶ power supply

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