# Subminiature USB2 cameras

smallest industrial grade camera • lowest power consumption • 5 Mpix

MU9PC
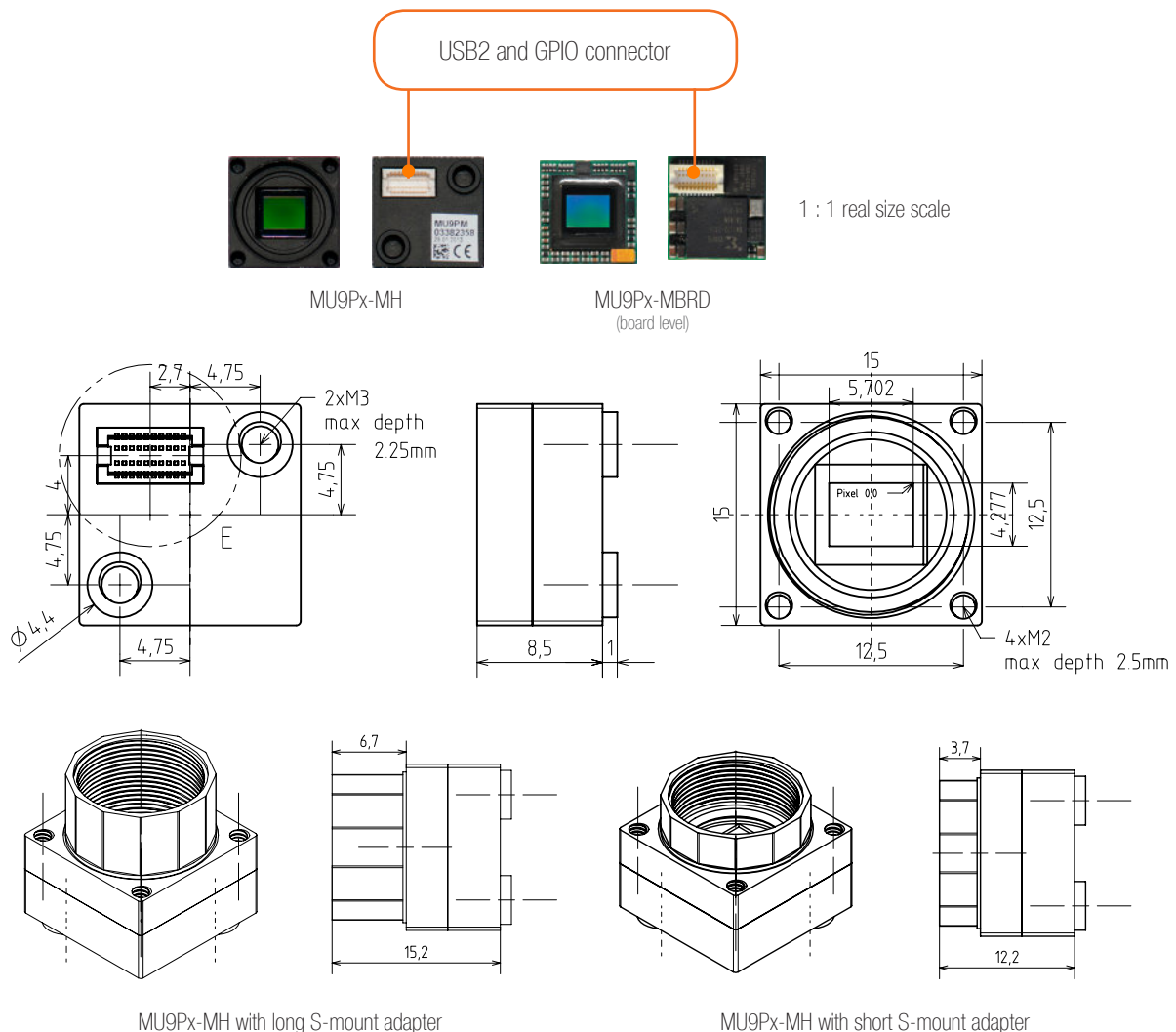54301159

## xiMU

board level and housed cameras
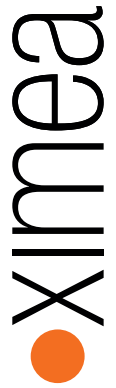
# xiMU - quick facts

**xiMU** [ksi-mju: or sai-mju:] is a subminiature USB 2.0, triggerable, fully industrial grade camera family with outstanding features:

- Incredibly small: World smallest USB camera with GenICam/GenTL support.
- Low thermal dissipation
- Single PCB, board level version available

| | |
|---|---|
| Sensor Technology | CMOS, rolling shutter with Global Reset Release |
| Acquisition Modes | Continuous, software trigger, hardware trigger |
| Partial Image Readout | ROI, Skipping and Binning modes supported |
| Image data formats | 8, 10 or 12 bit RAW pixel data |
| Color image processing | Host based de-Bayering, sharpening, Gamma, color matrix |
| Hot/blemish pixels correction | On camera storage of pixel coordinates, host assisted correction |
| Auto adjustments | Auto white balance, auto gain, auto exposure |
| Flat field corrections | Host assisted pixel level shading |
| General Purpose I/O | 4x I/O lines (bidirectional) |
| Synchronization | Hardware trigger input, software trigger, exposure strobe output, busy output |
| Housing and lens mount | Standard S-mount (M12). Two lens mount adapters available |
| Power requirements | Typ. 0.6 W, supplied via USB 2.0 interface |
| Operating systems | Windows, Linux Ubuntu, MacOS (>10.8) |
| Software support | xiAPI SDK, adapters and drivers for various image processing packages |
| USB standard compatible | USB 2.0, Universal Serial Bus Specification |

USB2 and GPIO connector

MU9Px-MH

MU9Px-MBRD
(board level)

1 : 1 real size scale

MU9Px-MH with long S-mount adapter

MU9Px-MH with short S-mount adapter

# xiMU - leading vision libraries supported

- Quick integration with third-party software using our easy-to-learn API/SDK and many examples made for AQSENSE SAL3D, Open CV, Aforge.NET, etc.

- All XIMEA cameras are plug-and-play compatible with most of the major image processing libraries on the market, including **MVTec HALCON, National Instruments LabVIEW, MathWorks MATLAB, STEMMER IMAGING Common Vision Blox, OpenCV and many others**.

- Support for GenICam/GenTL ensures forward compatibility with emerging image processing libraries, frameworks and packages.

- One-stop support of the camera and vision libraries integration.

- Open online community: Share experience, exchange knowledge and solutions at www.ximea.com/community.

## Compatible with more than 30 popular machine vision libraries:

Please checke webstie for up-to-date list:



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# xiMU - series camera specifications

## Sensors and models:

| Model | | Sensor | Resolution | Pixel size [µm] | ADC [bits] | DR [dB] | optical size | Sensor size/ diagonal [mm] | max. power consumption |
|---|---|---|---|---|---|---|---|---|---|
| MU9PM-MH [1] | b/w | Aptina MT9P031 | 2592 x 1944 5 MP | 2.2 | 8,10,12 | 70 | 1/2.5" | 5.7 x 4.3 7.1 | 0.7 W |
| MU9PC-MH [1] | color | | | | | | | | |

**Note 1:** Please replace „-MH" with „-MBRD" in the model name to address the board level camera
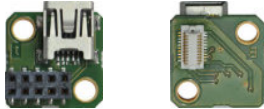
## Read out modes:

| Standard mode | Binning/skipping | Pixels | FPS |
|---|---|---|---|
| 0 | 1x1 | 2592 x 1944 | 5.8 |
| 1 | 2x2 bin | 1296 x 972 | 17 |
| 2 | 4x4 bin | 648 x 486 | 36 |
| 3 | 2x2 skip | 1296 x 972 | 22 |
| 4 | 4x4 skip | 648 x 486 | 83 |
| 5 | 6x6 skip | 430 x 324 | 163 |
| 6 | 7x7 skip | 368 x 376 | 200 |
| 7 | 7x7 skip/clip | 320 x 240 | 232 |

## Interfaces, connectors, environmental:

| Description | Value |
|---|---|
| Optimum ambient temperature | +10 to +25 °C |
| Ambient temperature operation | -10 to +55 °C (non condensing humidity) |
| Environment | Ingress Protection IP40 |
| Size, Weight | MU9Px-MH: Height * width * depth : 15 x 15 x 8.5 mm, 3.4 g |
| | MU9Px-MBRD: Height * width * depth : 14 x 13.2 x 5.5 mm (with connector), 1.2 g |
| Connector mounted on the PCB | HRS DF12E(3.5)-20DP  micro connector with USB 2.0 High-speed and digital I/O |

## Accessories:

| Item-P/N | Description | Illustration |
|---|---|---|
| MU-MINIUSB | Mini-USB Extension Board for MU9Px-MH |  |

## Compatibility:

Standard **Windows, Linux & MacOS** operation systems ● GenICam / GenTL ● Single SDK/API for all XIMEA camera models.

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## Contact:

Please visit **ximea.com** for complete product information.
E-mail our sales team at **sales@ximea.com** for your price and further information.

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