xiJ USB 3.1 Gen1 cooled scientific cameras

Strong performance in scientific and low-light applications.

Facts

- Resolutions from 4.2 to 15 Mpix
- Fast USB 3.1 Gen1 interface
- Up to 16 bits per pixel by combining low and high gain readout for sCMOS
- All sensors are active Peltier TEC cooled
- Sensor cooling down to -10°C depending on model

Features

- Low noise & high dynamic range
- Compact housings with C-mount, M42-mount and custom M58 thread
- Available also Backside illuminated sensor versions with >90% quantum efficiency
- Long life, sealed sensor chamber
- Ultra-precision, aluminum alloy, CNC machined, rugged housing
- Built with the latest sCMOS sensors from Gpixel

Designed for scientific and low-light applications

Made for results, the xiJ camera line provides super sensitive, linear and accurate data for your precise measurements. The sCMOS sensors from Gpixel provide CCD image quality and performance with CMOS speed. 4.2 to 15 Mpix Scientific CMOS options provide the quality you expect, combining high resolution and sensitivity.
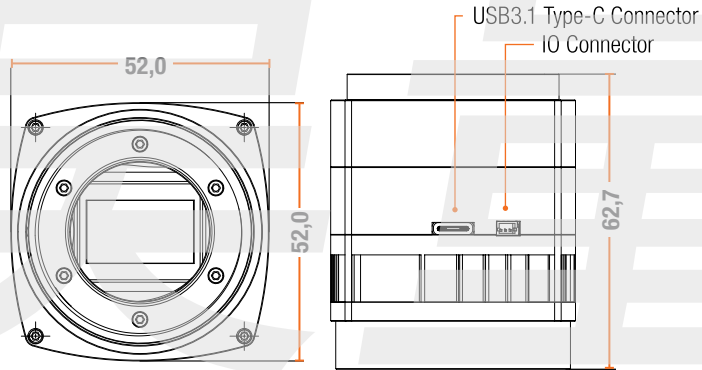
Cool

Photon starved applications will love the simplicity of getting a cooled camera up and running with little fuss. Imaging the very large (astronomy) to the very small (microscopy), the xiJ camera line has you covered.
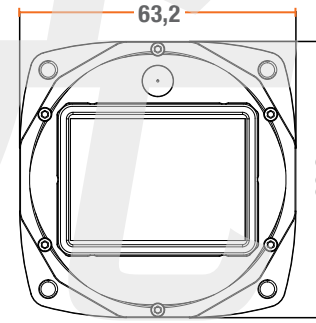
Versatile

The sensors in the xiJ camera line aren't just for scientific imaging. If sharp, high dynamic range images from a low light situation are needed, these cameras fit the bill.
Our acclaimed API and available tools will get you up and running in no time.

Cooled USB3.1 Gen1 cameras

USB3.1 Type-C Connector
IO Connector

52,0
52,0
62,7

MJ042 (sCMOS) & MJ150

63,2
63,2

USB3.1 Micro-B Connector
IO Connector
61,4

MJ160 & MJ290

Supported operating systems

Windows   Linux
macOS

Language support

C   C++   C#
python™

Standards

GEN<i>CAM
TRANSPORT LAYER

Supported vision libraries

MATLAB
POWERED BY NATIONAL INSTRUMENTS LabVIEW
HALCON a product of MVTec
OpenCV

and many more …

Sensors and models

Model		Sensor	Resolution	Pix. size [μm]	ADC [bits]	DR [dB]	FWC [ke-]	QE [%]	Sensor size / diagonal [mm]	Optical size	Fps	Min sensor temp °C[1]
MJ042MR-GP-P6-BSI	b/w	GPixel GSENSE2020BSI	2048 x 2048 4.1 Mpix	6.5	2 x 12	90	54	TBD 91	13.3 x 13.3 18.8	1.2"	40	-10
MJ042MR-GP-P11	b/w	GPixel GSENSE400	2048 x 2048 4.1 Mpix	11	2 x 12	96	90	58	22.5 x 22.5 31.8	2.0"	48 STD / 24 HDR	-10
MJ042MR-GP-P11-BSI	b/w	GPixel GSENSE400BSI-TVISB	2048 x 2048 4.1 Mpix	11	2 x 12	93	90	95	22.5 x 22.5 31.8	2.0"	48 STD / 24 HDR	-10
MJ150MR-GP	b/w	GPixel GSENSE5130	5120 x 2968 15.1 Mpix	4.25	2 x 12	77	16.5	72	21.8 x 12.6 25.1	APS-C	17	-10

Note

[1] Measurements are valid if additional components are used, such as a power injector. For lower cooling temperatures please inquire with our sales teams. 10° C is achievable with standard configuration.