

# xiX

- highest bandwidths
- smallest modular board stack
- perfect for aggregation

ximea



PCIe cameras for integration



[sci-eks]  
or [ksi-eks]

The **xiX** cameras stream images to the host computer via 2 or 4 lanes on a PCI Express Gen2 bus. Together with minimal latencies and CPU load, the cameras are a perfect fit for embedded vision and multi-camera applications. Thanks to flat flex cabling, the board-level and semi-housed variants allow integration in tight spaces and close proximity between cameras.

### Quick facts

- Flat flex cables, with data lines, AUX power and digital IOs
- PCIe Gen2, 2 or 4 lanes
- PCIe interface for direct access to the computer memory
- No frame grabber required
- 2 form factors: smallest C/CS-mount and EF-mount
- Remote usable sensor board

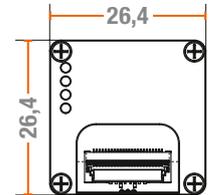
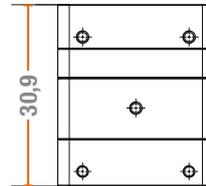
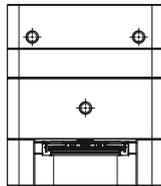
### Semi-housed and board-level cameras

Two form factors, speed and resolution options are available



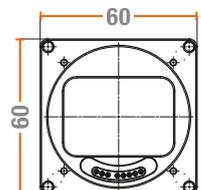
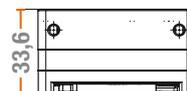
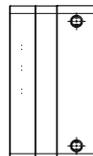
#### PCIe Gen2 x2, C/CS-mount

- Sony Pregius and fast CMOSIS CMV sensors, up to 1.1" optical format
- 2 PCIe lanes for up to 10 Gbit/s bandwidth
- Standard C-mount, convertible to CS-mount
- Board-level version available



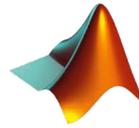
#### PCIe Gen2 x4, Canon EF-mount

- Large format CMOSIS CMV sensors
- 4 PCIe lanes for up to 20 Gbit/s bandwidth
- Integrated active Canon EF lens adapter for dynamic control of aperture and focus
- Board-level version available



## Supported vision libraries

Compatible with more than 30 popular machine vision libraries



XIMEA strives to create and maintain compatibility and interfaces for the most common and advanced vision image-processing libraries and applications. Major support is available for **MVTec Halcon**, **National Instruments LabVIEW**, **MathWorks MATLAB** and **OpenCV**. Please check our XIMEA website for an up-to-date list of other supported libraries and software packages.

## Compatibility

Supported operating systems



Windows



Linux



OS X

## Standards



### About us

**Big**  
about  
**small**

#### Why would we make that claim?

We say that because we just love to make cameras small, and excel at this task. Nobody makes the same thing any smaller. Is that a good thing? We certainly think so, especially when our products exceed customer satisfaction and specification. With small, comes low mass, another massive advantage for all our customers. High density means we have to take extraordinary care regarding power consumption and heat dissipation. But... that does not mean we allow any compromises. Everything we include in our products is of industry standard or better. Thanks to the full metal body, our cameras – literally and figuratively – are extremely cool, and because of our love for speed they are also fast. This design paradigm optimizes for the most ideal specifications for the broadest set of customers.

Our passion about small things also extends to the company itself.

We take conscious action to stay small and agile as a company. Consequentially our people must be extraordinarily talented to ensure efficient processes and cover all bases. We have well defined outsourcing interfaces with close interactions internally and externally with management as a part of the team. Being small keeps everyone focused and aware of what is going on, which quickly translates into customer satisfaction.

Thanks for your time.

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### PCIe Gen2 x2 interface, C/CS-mount - Sensors and models

Model <sup>1)</sup>	Sensor	Resolution	Pixel size [µm]	ADC [bits]	DR [dB]	Optical size	Sensor size/diagonal [mm]	FPS	
MX023MG-SY-X2G2	b/w	Sony IMX174	1936 × 1216 2.3 Mpix	5.86	10, 12	72	1/1.2"	11.3 × 7.1 13.4	166 @ 10 bits
MX023CG-SY-X2G2	color								
MX031MG-SY-X2G2	b/w	Sony IMX252	2064 × 1544 3.1 Mpix	3.45	8, 10, 12	71	1/1.8"	7.1 × 5.3 8.9	218 @ 8 bits
MX031CG-SY-X2G2	color								
MX050MG-SY-X2G2	b/w	Sony IMX250	2464 × 2056 5.0 Mpix	3.45	8, 10, 12	71	2/3"	8.5 × 7.1 11.1	165 @ 8 bits
MX050CG-SY-X2G2	color								
MX089MG-SY-X2G2	b/w	Sony IMX255	4112 × 2176 8.9 Mpix	3.45	8, 10, 12	71	1"	14.2 × 7.5 16.1	95 @ 8 bits
MX089CG-SY-X2G2	color								
MX124MG-SY-X2G2	b/w	Sony IMX253	4112 × 3008 12.4 Mpix	3.45	8, 10, 12	70	1.1"	14.2 × 10.4 17.6	69 @ 8 bits
MX124CG-SY-X2G2	color								
MX022MG-CM-X2G2	b/w	CMOSIS CMV2000	2048 × 1088 2.2 Mpix	5.5	10	60	2/3"	11.3 × 6.0 12.8	340 @ 8 bits
MX022CG-CM-X2G2	color								
MX022RG-CM-X2G2	b/w NIR								
MX042MG-CM-X2G2	b/w	CMOSIS CMV4000	2048 × 2048 4.2 Mpix	5.5	10	60	1"	11.3 × 11.3 15.9	180 @ 8 bits
MX042CG-CM-X2G2	color								
MX042RG-CM-X2G2	b/w NIR								

**Note 1:** Please add "-BRD" in the model name to address the board-level cameras

### PCIe Gen2 x4 interface, EF-mount - Sensors and models

Model <sup>1)</sup>	Sensor	Resolution	Pixel size [µm]	ADC [bits]	DR [dB]	FWC	Sensor size/diagonal [mm]	FPS	
MX120MG-CM-X4G2-EF	b/w	CMOSIS CMV12000	4096 × 3072 4K: 12 Mpix	5.5	8, 10, 12	60	13500 e-	22.5 × 16.9 28.1	133 / 103 / 86 <sup>2)</sup>
MX120CG-CM-X4G2-EF	color								
MX120RG-CM-X4G2-EF	b/w NIR								
MX200MG-CM-X4G2-EF	b/w	CMOSIS CMV20000	5120 × 3840 5K: 20 Mpix	6.4	12	66	15000 e-	32.8 × 24.6 41.0	32 @ 12 bits
MX200CG-CM-X4G2-EF	Color								
MX500MG-CM-X4G2-EF <sup>4)</sup>	b/w	CMOSIS CMV50000	7920 × 6004 8K: 47.6 Mpix	4.6	12, 14	60	16000 e-	36.4 × 27.6 45.6	30 / 22 <sup>3)</sup>
MX500CG-CM-X4G2-EF <sup>4)</sup>	color								

**Note 1:** Please add "-BRD" in the model name to address the board-level cameras

**Note 2:** RAW 8 bits, 10 bits and 12 bits

**Note 3:** RAW 8 bits and RAW 12 bits

**Note 4:** Engineering samples available Q1/2017, production series approx. Q3/2017.

Please check our website for updates on schedules.

## Contact

Please visit **www.ximea.com** for complete product information.

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We will be glad to assist and consult you regarding our products.

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