xiB-64

- fastest camera interface @ 64 Gbit/s
- frame rates up to 3500+
- image transfer straight to RAM

Ximea

PCIe Gen3 x8 camera series

xiB-64
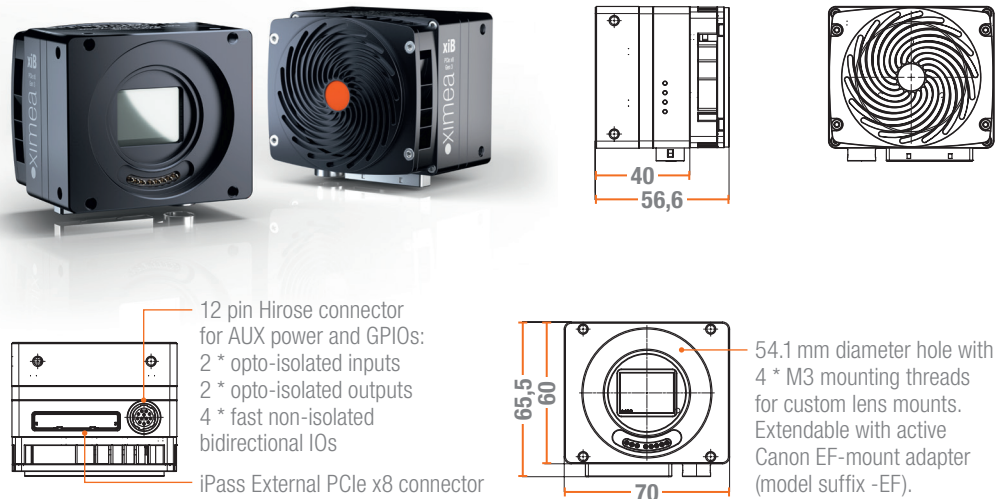
[sci-bi:]
or [ksi-bi:]

The **xiB-64** cameras stream images to the host computer via 8 lanes on a PCI express Gen3 bus, boasting a 64 Gbit/s sustainable transfer rate. Due to this technology there is no latency and hardly any CPU load.

This series does not compromise and is extremely useful where highest data rates are required, either for simultaneous speed, bit depth and resolution or for extremely high frame rates. It is the only camera architecture available that is capable of exploiting the newest high bandwidth CMOS sensors and streaming via DMA to computer memory. An inbuilt 150 MB buffer ensures that no frames are dropped. The cameras can be fully synchronized with their multiple GPIOs and offer an active Canon EF-mount.
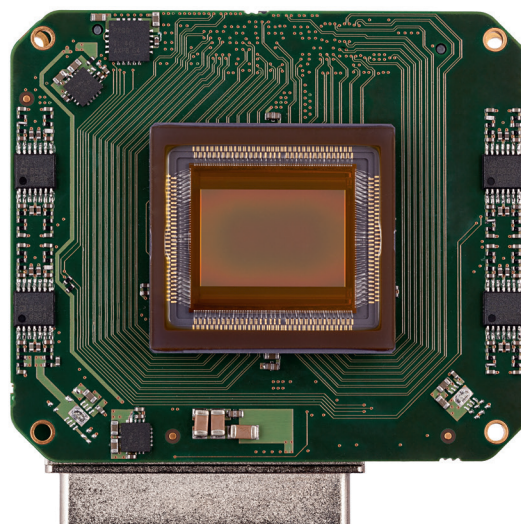
Quick facts

- PCIe Gen3 x8 interface for direct access to the computer memory with up to 64 Gbit/s
- No frame grabber required
- Most recent high speed and high resolution sensors from Luxima and CMOSIS
- Active Canon EF lens mount for control of aperture and focus
- 100+ m cable lengths possible
- Compact housing $60 \times 70 \times 56\,mm^3$
- Direct data transfer to GPU possible on Linux

Housed cameras

40
56,6

12 pin Hirose connector for AUX power and GPIOs:
2 * opto-isolated inputs
2 * opto-isolated outputs
4 * fast non-isolated bidirectional IOs

iPass External PCIe x8 connector

65,5
60
70

54.1 mm diameter hole with 4 * M3 mounting threads for custom lens mounts. Extendable with active Canon EF-mount adapter (model suffix -EF).

Board-level cameras[1]

Option for optimal system integration

Standard iPass (-BRD)

- Board-level version of standard housed camera with iPass (PCIe x8) connector, parallel to board surface
- Modular board stack with remote usable sensor board

Note 1: Board level cameras are OEM items subject to minimum order quantitites

Supported vision libraries

Compatible with more than 30 popular machine vision libraries

HALCON
a product of MVTec

OpenCV

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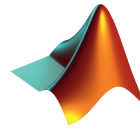
XIMEA strives to create and maintain compatibility and interfaces for the most common and advanced vision image-processing libraries and applications. Major support is available for **MVTec Halcon, National Instruments LabVIEW, MathWorks MATLAB** and **OpenCV.** Please check our XIMEA website for an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

Compatibility

Supported operating systems

Windows   **Linux**   **OS X**

Standards

GEN<i>CAM
TRANSPORT LAYER

PCI EXPRESS®

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.

xiB-64 *Light Speed, Ridiculous Speed, Ludicrous Speed*

Sensors and models

Model		Sensor	Resolution	Pixel size [µm]	ADC [bits]	DR [dB]	FWC	Sensor size/ diagonal [mm]	FPS
CB013MG-LX-X8G3-EF [1]	b/w	Luxima LUX13HS	1280 × 864 1.1 Mpix	13.7	10	60	20000 e-	17.5 × 11.8 21.1	3500+
CB013CG-LX-X8G3-EF [1]	color								
CB019MG-LX-X8G3-EF [1]	b/w	Luxima LUX19HS	1920 × 1080 2 Mpix	10.0	10	60	15000 e-	19.2 × 10.8 22.0	2500+
CB019CG-LX-X8G3-EF [1]	color								
CB120MG-CM-X8G3-EF	b/w	CMOSIS CMV12000	4096 × 3072 4K: 12 Mpix	5.5	8, 10, 12	60	13500 e-	22.5 × 16.9 28.1	330
CB120CG-CM-X8G3-EF	color								
CB120RG-CM-X8G3-EF	b/w NIR								
CB160MG-LX-X8G3-EF [2]	b/w	Luxima LUX160	4704 × 3424 16 Mpix	3.9	10	60	10000 e-	18.3 × 13.3 22.6	300+
CB160CG-LX-X8G3-EF [2]	color								

Note 1: Engineering samples available 07/2017, production series approx. 09/2017.
Please check our website for updates on schedules.
Note 2: Release date not finalized. Please check our website or inquire at sales@ximea.com

Contact

Please visit **www.ximea.com** for complete product information.
Get in touch with our teams at **sales@ximea.com**.
We will be glad to assist and consult you regarding our products.

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