xiB-64
High-performance cameras with PCIe X8G3 interface
xiB-64 cameras with 64 Gbps PCIe interface
Fastest streaming cameras with lowest latency

Facts
• High-speed interface with a bandwidth of 64 Gbps
• Latest CMOS high-performance sensors AMS CMV12000, Luxima LUX13HS, LUX19HS, LUX160, and Gpixel GMAX0505, GMAX3265
• Resolutions from 1 to 65 Mpix
• Frame rates of 3,600+ fps
• Fast PCIe Generation 3, 8 lane interface
• Over 7 GB/s stream to storage with selected PC & SSD configurations
• Fiber-optic up to 100 m and copper connectivity
• Active EF-mount with support for motorized aperture and focus
• C-mount option for smaller sensors
• Compact housing 60 x 70 x 40 mm

Features
• No frame grabber required, DMA transfer, no CPU load
• Direct GPU transfer with selected NVIDIA boards under Linux
• Data transmissions with near to zero latency
• Ideal for applications that require real-time data transmission
• No constraints on recording time by camera memory
• Flexible GPIO with optoisolated and TTL options
• Versatile cooling options
• Industry standard iPass connector
• Rugged and lightweight, aluminum alloy CNC machined housing
Super-high frame rates
Modern CMOS and sCMOS sensors are getting faster and faster, outstripping the capability of most interfaces to keep up. Enter PCIe: The xiB-64 cameras use PCIe Generation 3 with 8 lanes for a mind-boggling 64 Gbps! Enough to transmit 1 Mpix resolution uncompressed with more than 3,500 fps or equivalent to over 18 USB3 real world data streams.

Next generation of high-speed imaging
xiB-64 cameras do not suffer memory limitations in the same manner as traditional high-speed cameras, whose memory is internal to the camera. The camera is merely an endpoint in the PCIe architecture of the host computer, which has virtually no memory limitations. Data arrival is nearly instantaneous and available to the CPU/GPU for processing or storage with little overhead.

Stretching the distance
The use of optical fiber cables allows distances between cameras and host computers up to 100 m without performance penalty and even 300 m with reductions in frame rate. Put your camera where the action is: monitor and record from a distance.

xff-64 - PCIe X8G3 housing

Supported operating systems
Windows
Linux
macOS

Language support
C
C
C

Standards
GENIICAM
PCI EXPRESS

Supported vision libraries
MATLAB
LabVIEW
HALCON
OpenCV
and many more ...

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## Sensors and models

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**Note**

1. Full resolution, RAW 8 bits
2. Full resolution, RAW 8 bits, 10 bits and 12 bits
3. Full resolution, RAW 10 bits and 12 bits

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**Further information**

Please visit us at [www.ximea.com](http://www.ximea.com) for complete and up-to-date specifications. Get in touch with our teams at sales@ximea.com. We will be glad to assist!