

Helpdesk XIMEA

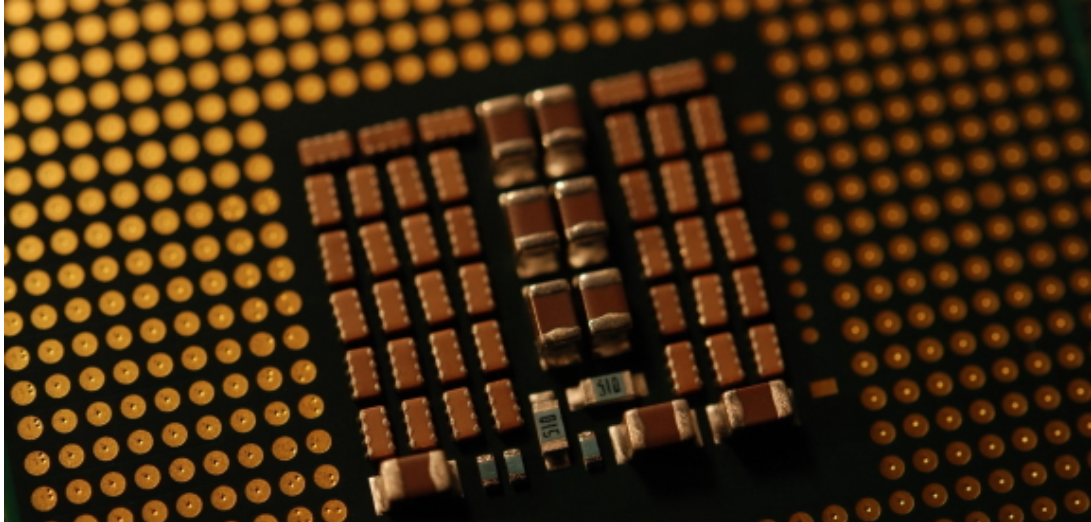
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USB3 Hardware Compatibility

Support SK - 2023-10-19 - in USB cameras

https://www.ximea.com/support/wiki/usb3/compatible_hardware

USB3 Hardware Compatibility¶



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In order to achieve a stable connection of **XIMEA USB3 Vision cameras** like [xiC](#) or [xiQ](#), it is important to use compatible hardware components.

The list below is updated based on current requirements and represents our best knowledge of compatible and incompatible components.

CPU¶

The following table lists the maximum suggested number of color cameras connected to one PC equipped with a selected CPU to get the maximum camera frame-rate.

Note1: To achieve the maximum frame-rate - each camera should be connected to a separate USB3 controller.

Note2: Tested on Windows 7 - x64. Each camera used a dedicated application to receive

images.

CPU [MQ013CG-E2](#)

AMD - A8-3850 2

Intel i5-2500 4

Motherboards[1](#)

Vendor	P/N	Details
Gigabyte	GA-H61N-USB3	Socket 1155, Intel H61, DDR3, Onboard USB3.0, GbEth, Mini-ITX
Gigabyte	GA-X79-UD7	LGA2011, Intel X79, DDR3, Onboard USB3.0, GbEth, XL-ATX
Gigabyte	GA-Z77M-D3H	Socket 1155, Intel Z77, 4xDDR3, Onboard 3xUSB 3.0, GbEth, mATX

PCI Express (PCIe) bus speed requirement[1](#)

USB 3.0 host adapter must be connected to PCI Express which must be at least V2.0.

USB 3.0 host adapters chipsets[1](#)

Below is a list of devices that use chipsets like Intel 7 series (Ivy Bridge), Intel 8 series (Haswell), Intel 9 series (Broadwell), as well as host adapters and other options.

Adapter details	Driver version	W7	Linux	Ctrl MB/s	Data MB/s
Fresco Logic FL1100	3.5.24.0	OK	OK	3.9	395
Renesas D720202	3.0.12.0	OK	OK	0.5	365
Intel QM77	Latest	OK	OK	0.5	450
Intel Z77	Latest	OK	OK	0.5	450
Intel Z87	Latest	OK	-	-	-
Intel Z97	Latest	OK	-	-	-

Incompatible USB3 host controllers:

Adapter details	All operating systems
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ASMedia AS1042	Not Compatible
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Etron EJ168A	Not Compatible
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Via Labs VL800-Q8	Not Compatible
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Legend: OK Test passed, NO Test failed, - Not tested yet, TBD To be defined (=not defined yet)

[USB 3 Host Adapters¶](#)

Note: If you want to check the driver used by xHCI card, you can utilize the XIMEA control panel [xiCOP](#) or simply use Windows Device Manager. Click the Properties option on the adapter and then select the Driver tab, Driver Details.

Tested passive cables¶

Vendor	Part number	Length	Screw locking
XIMEA	CBL-U3-3M0	3m	MicroB only
XIMEA	CBL-U3-5M0	5m	MicroB only

Cables that were tested with USB3 Vision line - xiQ¶

Please refer to the following articles where XIMEA announces interoperability with:

[CEI](#)

[Newnex](#)

[Icron](#)

[How to achieve full frame rate¶](#)

General Rules when using Cables

- Avoid bending cable at a small radius.
 - Minimum bend radius for each cable should be [above 6cm](#)
 - If the cable needs to be bent repetitively - it should be placed into [Cable Carrier](#) and a special type of cable, that allows repetitive bending, should be used.
- Avoid damaging the camera connector by excessive movement of the cable.
 - When the camera is mounted on a moving part (e.g. robotic arm) the cable

connected to the camera should be fixed to the same part that the camera is attached to.

- If the cable is vibrating – it's fixing point should be as close as possible to the spot connecting it to the camera, in order to avoid the transfer of any vibration from cable to connector.