

USB3 Vision camera series



smallest single board design • lowest power consumption • ultra fast




xiQ

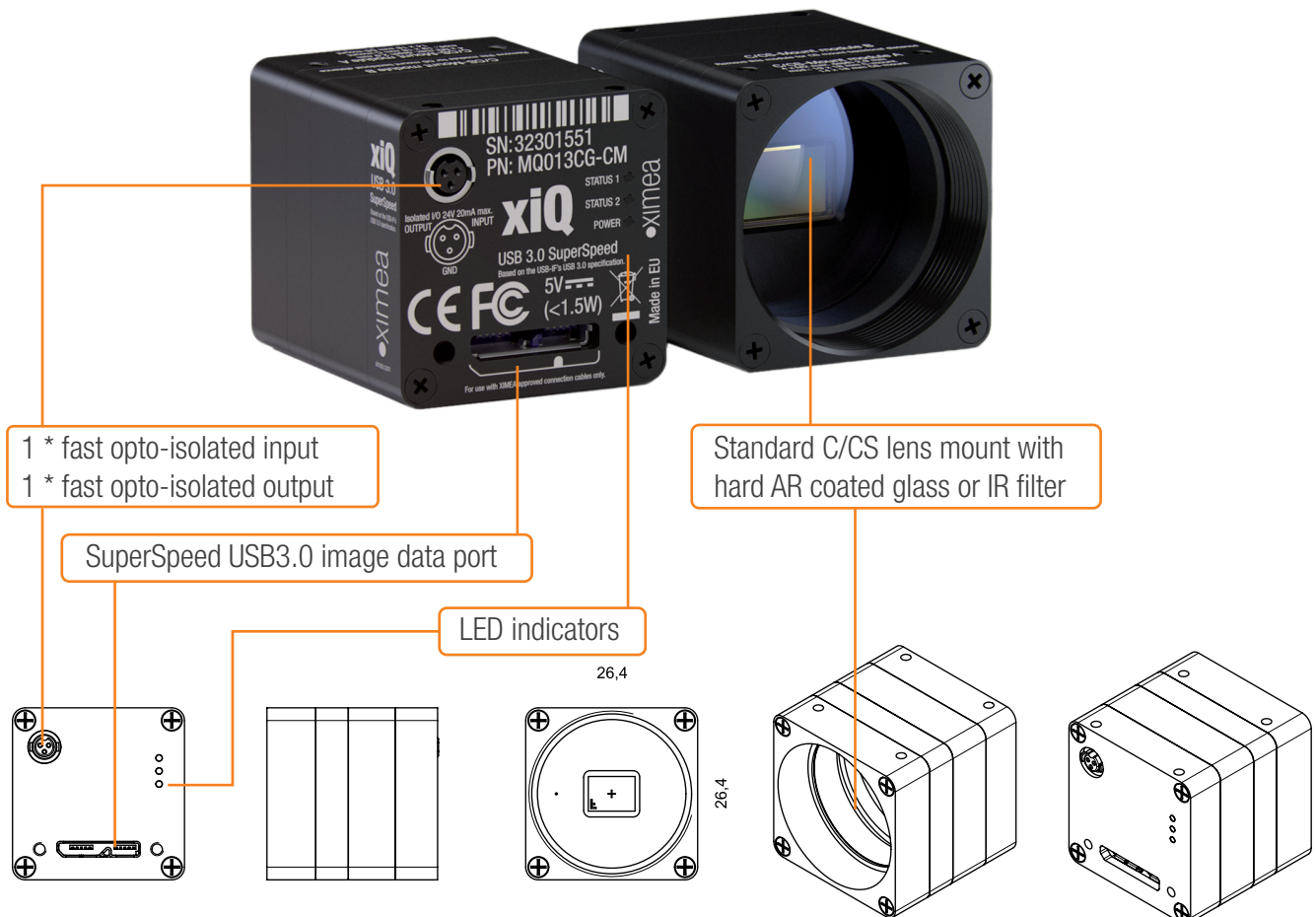
board level and housed cameras

xiQ – quick facts

xiQ [ksi-kju: or sai-kju:] is an ultra-compact USB3 Vision Standard compatible industrial camera family with outstanding features:

- Extremely small footprint
- Low thermal dissipation
- Single board electronics

Industry standard interface	Compliant with USB 3.0 SuperSpeed specification	
AIA standard compatibility	USB3 Vision standard	
Small	Fits into places where no other camera can fit	
Cool	Due to low power consumption, 0.9 to 1.8 W, supplied via USB3.0 interface	
Powerful	5Gb/s interface up to 450Mpix/s data throughput	
Fast	High speed, high frame rate: >500fps at VGA and 90fps at 4Mpix resolutions	
Robust	Full metal housing, no sheet metal covers	
Lightweight	Facilitates increased performance of robotic arms and gimbals	
Lens mount	Standard C-mount, convertible to CS mount, and board level	
Connectivity	Programmable opto-isolated input and output, 3 status LEDs	
Compatibility	Support for Windows, Linux and MacOS, various Image Processing Libraries	
Software interfaces	GenICam / GenTL and highly optimized xiAPI SDK	
Auto adjustments	Auto white balance, auto gain, auto exposure	
Sensor Technology	Most recent generation of CMOS sensors with global shutter	
Economical	Excellent value and price, low TCO and fast ROI	
System integration	Single board design, perfect for OEM integration	



xiQ – leading vision libraries supported



- Quick integration with third-party software using our easy-to-learn API/SDK and many examples made for AQSENSE SAL3D, Open CV, Aforge.NET, etc.
- All XIMEA cameras are plug-and-play compatible with most of the major image processing libraries on the market, including **MVTec HALCON**, **National Instruments LabVIEW**, **MathWorks MATLAB**, **STEMMER IMAGING Common Vision Blox**, **Open CV** and many others.
- Support for GenICam/GenTL ensures forward compatibility with emerging image processing libraries, frameworks and packages.
- Just one-stop support of the camera and vision libraries integration.
- Open online community: Share experience, exchange knowledge and solutions at www.ximea.com/community.

Compatible with more than 30 popular machine vision libraries:
Please check website for up-to-date list!



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GEN<i>CAM
TRANSPORT LAYER

xiQ – series cameras specifications

Sensors and models:

Model		Sensor	Resolution	Pixel size	ADC	DR	optical size	Active area	FPS ¹⁾	max. power consumption
MQ003MG-CM	b/w	CMOSIS CMV300	648 x 488 VGA	7.4 µm	10,12 bits	60 dB	1/3"	4.8 x 3.6 mm	>500	1.3 W
MQ003CG-CM	color									
MQ013MG-E2	b/w	E2V EV76C560	1280 x 1024 1.3 MP	5.3 µm	10 bits	>60 dB	1/1.8"	6.9 x 5.5 mm	60	0.9 W
MQ013CG-E2	color									
MQ013RG-E2	b/w NIR	E2V EV76C661								
MQ013MG-ON	b/w	Onsemi VITA1300	1280 x 1024 1.3 MP	4.8 µm	10 bits	53 dB	1/2"	6.2 x 5.0 mm	150	1.4 W
MQ013CG-ON	color									
MQ020MG-E2	b/w	E2V EV76C570	1600 x 1200 2 MP	4.5 µm	10 bits	>60 dB	1/1.8"	7.2 x 5.4 mm	60	0.9 W
MQ020CG-E2	color									
MQ022MG-CM	b/w	CMOSIS CMV2000	2048 x 1088 2.2 MP	5.5 µm	10,12 bits	60 dB	2/3"	11.3 x 6.0 mm	170	1.8 W
MQ022CG-CM	color									
MQ022RG-CM	b/w NIR									
MQ042MG-CM	b/w	CMOSIS CMV4000	2048 x 2048 4.2 MP	5.5 µm	10,12 bits	60 dB	1"	11.3 x 11.3 mm	90	1.8 W
MQ042CG-CM	color									
MQ042RG-CM	b/w NIR									

Note 1: RAW, 8 bit

Interfaces, connectors, environmental:

Description	Value
Optimal ambient temperature operation	+10 to +25 °C
Ambient temperature operation	-10 to +55 °C (non condensing humidity)
Environment	Ingress Protection IP40
USB3.0 connectors	Standard USB3.0 Micro-B connector with thumbscrews
I/O & sync connector	Hirose SR38-4R-3S(71) with optional locking nut

Compatibility:

Standard **Windows, Linux & MacOS** operation systems • GenICam / GenTL • Single SDK/API for all XIMEA camera models

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