

High-end cameras

ximea

outstanding performance for scientific purposes • minimal size



xiCe|xiRAY

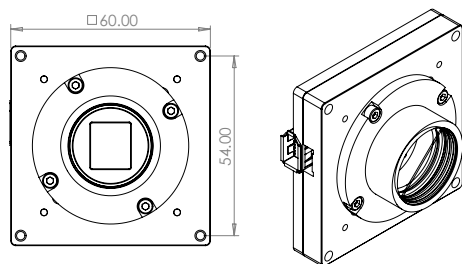
cooled and uncooled cameras

xiCe, xiRAY - quick facts

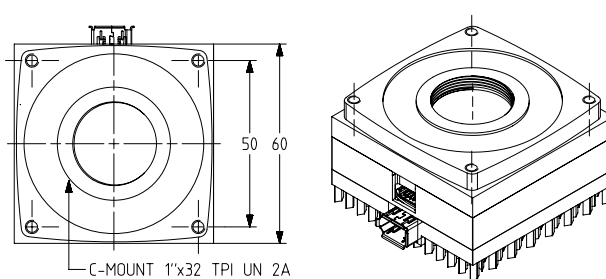
xiCe and xiRAY are ultra-compact camera families for scientific and special industrial purposes with outstanding specifications and extra features:

- ultra-low read-out noise, clear 14 bits/pixel images in all modes
- partial readout and several binning modes with enhanced sensitivity and higher frame rates
- TEC Peltier cooled versions and board level versions of cameras are available

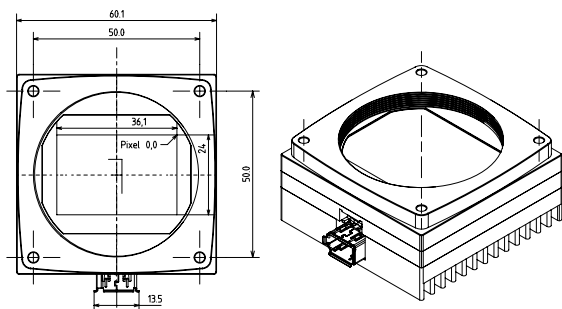
Sensor technology	CCD
Small	Fits into places where no other similar grade of camera can fit
Robust	Full metal housing, no sheet metal covers
Connectivity	Programmable input and output
Compatibility	Support for Windows and Linux, various Image Processing Libraries
Software interfaces	GenICam / GenTL and highly optimized xiAPI SDK
Economical	Excellent value and price, low TCO and fast ROI
Auto adjustments	Auto white balance, auto gain, auto exposure
System integration	Single board design, perfect for OEM integration



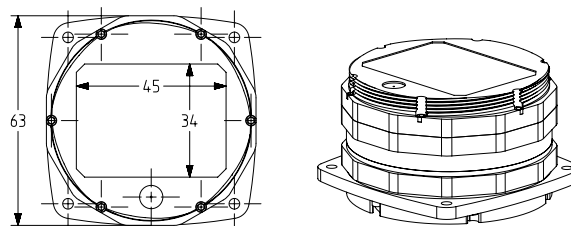
MR285 uncooled - standard housing



MR4021/MR4022 uncooled - standard housing



MR11002/MR16000 uncooled - standard housing

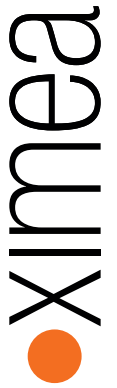


xiCOOL, xiRAY - standard cooled housing

Details X-ray cameras, xiRAY models:

Fiber optics	Magnification	1:1	Fiber center to center distance	6 μm
	Field of view	36 x 24 mm	FO plate thickness	5 mm
	Radiation hardened	yes	Extra-Mural Absorption	Enhanced Statistical
Scintillator	Phosphor composition	P43, Gd2O2S:Tb	Thickness	~22 μm
	Energy range	Min: 5 KeV, Max 100 KeV		
Cooling system	Type	TEC Peltier cooler	Dissipation	Heatsink, optional fan
	Temperature	+12°C	Power supply / Control	Internal
Physical	Dimensions	63 x 63 x 63mm	Operating Temperature	-5..+50°C
	Power consumption	6W max		

xiCe, xiRAY - 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**, **OpenCV** and many others.
- Support for GenICam/GenTL ensures forward compatibility with emerging image processing libraries, frameworks and packages.
- 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 checke webstie for up-to-date list:



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xiCe, xiRAY - series camera specifications

MR, Sensors and models, optional Peltier cooled:

Model ¹⁾	Cooled		Sensor	Resolution	Pixel size [µm]	ADC [bits]	DR [dB]	Sensor size	FPS ²⁾
MR285MU-BH	MR285MC-BH	b/w	SONY ICX285	1376 x 1032 1.4 MP	6.45	8,10,12,14	70	10.2 x 8.3 mm 2/3"	15
MR285CU-BH	MR285CC-BH	color							
MR4021MU-BH	MR4021MC-BH	b/w	Truesense KAI-4021	2048 x 2048 4.2 MP	7.4	8,10,12,14	70	15.2 x 15.2 mm 1"	5.5
MR4021CU-BH	MR4021CC-BH	color							
MR4022MU-BH	MR4022MC-BH	b/w	Truesense KAI-04022	2048 x 2048 4.2 MP	7.4	8,10,12,14	75	15.2 x 15.2 mm 1"	5.5
MR4022CU-BH	MR4022CC-BH	color							
MR11002MU-BH	-	b/w	Truesense KAI-11002	4008 x 2672 11 MP	9.0	8,10,12,14	70	36.1 x 24.0 mm	2.1
MR11002CU-BH	-	color							
MR16000MU-BH	-	b/w	Truesense KAI-16000	4872 x 3248 16 MP	7.4	8,10,12,14	70	36.1 x 24.0 mm	1.4
MR16000CU-BH	-	color							

Note 1: Please replace „-BH“ with „-BRD“ for board level cameras; not applicable for cooled models and MR402x

Note 2: RAW, 14 bit, full resolution

xiCOOL, Sensors and models, Peltier cooled:

Model	Sensor	Resolution	Pixel size [µm]	ADC [bits]	DR [dB]	Sensor size	FPS ¹⁾
MH110MC-KK	b/w	Truesense KAI-11002	4008 x 2672, 11 MP	8,10,12,14	70	36.1 x 24.0 mm	2.1
MH110CC-KK	color						
MH160MC-KK	b/w	Truesense KAI-16000	4872 x 3248 16 MP	8,10,12,14	70	36.1 x 24.0 mm	1.4
MH160CC-KK	color						

Note 1: RAW, 14 bit, full resolution

xiRAY, Sensors and models, fiber optics coupled, Peltier cooled:

Model	Sensor	Resolution	Pixel size [µm]	ADC [bits]	DR [dB]	Sensor size	FPS ¹⁾
MH110XC-KK	b/w	Truesense KAI-11002	9.0 µm	8,10,12,14	70	37,2 x 25.7 mm	2.1
MH160XC-KK	b/w	Truesense KAI-16000	7.4 µm	8,10,12,14	70	36.1 x 24.0 mm	1.4

Note 1: RAW, 14 bit, full resolution

Interfaces, connectors:

Value	Description
Firewire connector	IEEE 1394A
I/O & sync connector	Hirose SR38-4R-3S(71) (MH models only)

Compatibility:

Standard **Windows and Linux** operation systems • GenICam / GenTL • Single SDK/API for all XIMEA camera models.

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