

Intelligent PC-camera

ximea

highly compatible • performant standard PC integrated • IP67



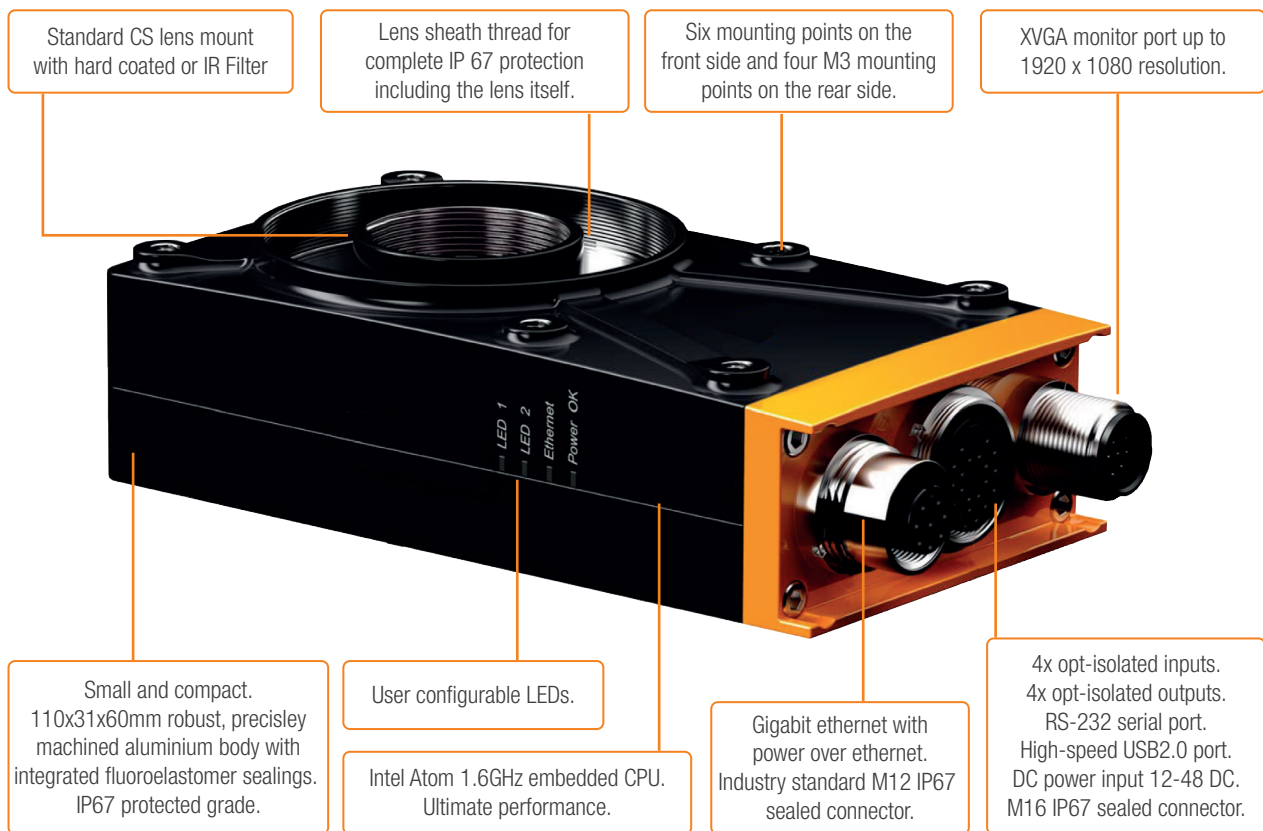
carrera R the complete vision system

currena R – quick facts

CURRENA-R is an ultra compact, PC based Vision System with an integrated, Atom based Personal Computer and a machine vision camera in an IP67 class housing and the option to connect all standard PC peripherals.

The PC-camera supports Windows Embedded Standard 2009, WES7 and Linux and a wide range of standard vision libraries.

Industry standard	Intel x86 PC inside supported by major operating systems
Compact	IP67 industrial smart camera
Compatibility	Runs Windows and Linux, multiple Image Processing Libraries
Economical	Excellent value and price, low TCO and fast ROI
Energy saving	Low power consumption, supplied via PoE or external supply
Powerful	All CPU power remains free for Image Processing tasks, no image acquisition overhead
Fast	Perfectly matched and tuned Image Acquisition data path running at 2.5Gbits internal PCIe bus with transparent DMA transfer
Connectivity	Extensive range of interfaces: Gigabit Ethernet, USB, VGA, RS232, fast and isolated Digital Inputs and Outputs
Software interface	GenICam / GenTL and highly optimized xiAPI SDK
Simple deployment	All functionality of complete Vision System delivered in single OS image file deployable within minutes



Processor / CPU	INTEL Atom x86 Z530 1.6GHz
System memory	533MHz DDR2 1GB
Storage	SSD Solid State Disk 3.6GB, internal Micro SDHC
Image Sensors	From WVGA to 5Mpix, Global Shutter (GS) and Global Reset Release (GRR)
Cables	Ready for use in several lengths: VGA, Gigabit Ethernet, System
Breakout board	Providing expansion and convenient connectivity for USB, RS232, Digital Isolated Inputs and Outputs
starter kit	Ready-to-run with lense, tripod, cables, breakout board and pre-installed and configured Windows or Linux

currena R – 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!



All trademarks are the property of their respective holders, used with permission. All other rights reserved.

GEN<i>i>CAM
TRANSPORT LAYER

currena R – series cameras specifications

Sensors and models:

Model	Sensor	shutter	Resolution	Pixel size	ADC	DR	optical size	Active area	FPS ²⁾
RL04-xx ¹⁾	b/w	Aptina MT9V034	752 x 480 WVGA	6.0 µm	8,10,(12) bits	55 dB	1/3"	4.5 x 2.9 mm	60
RL04C-xx ¹⁾	color								
RL13-xx ¹⁾	b/w	E2V EV76C560	1280 x 1024 1.3 MP	5.3 µm	8,10 bits	62 dB	1/1.8"	6.9 x 5.5 mm	60
RL13C-xx ¹⁾	color								
RL50-xx ¹⁾	b/w	Aptina MT9P031	2592 x 1944 5 MP	2.2 µm	8,10,12 bits	70 dB	1/2.5"	5.7 x 4.3 mm	15
RL50C-xx ¹⁾	color								

Note 1: GPIO-logic: xx=OC for Open Collector, xx=24 for 24V logic (according to the IEC 61131-2) **Note 2:** RAW, 8 bit

Processor, Memory and video:

Processor and chipset	DDR2 RAM	SSD	Internal Micro SDHC Card	Analog Video output
Intel Atom Z530 1.6 GHz, US15W	1GB, 533 MHz	3.6 GB	32 GB	max. 1920 x 1080

Electrical, mechanical and environmental:

Power Requirements	Power over Ethernet IEEE802.3af, Class 0: typ. 7W max. 12W	Power via System Port: 12-48V DC typ. 7W, max. 13.5W
Housing Dimensions without heatsink	WxHxD 59.2 x 109.8 x 31 mm	Optional Lens Sheaths: H 63/50mm, internal diameter 50mm
Housing Dimensions with heatsink	WxHxD 59.2 x 109.8 x 48 mm	Weight: 262g
Environmental	Ingress Protection: IP67 with lens sheath tube attached	Operating temperature with heatsink -10°C to +65°C
		Operating temperature without heatsink -10°C to +40°C

Interfaces and connectors:

Connector	Signals	Mating connectors
Ethernet	100BASE-T IEEE802.3af Ethernet with PoE	M12 M 8pins, Binder, P/N: 09-3482-275-08
Monitor	XVGA max 1920 x 1080 pixels resolution	M12 F 12pins, Binder, P/N: 99-1492-822-12
Multi I/O Connector	4x isolated inputs, 5-24V 12mA max input current, 100ns trigger delay, user configurable	M16 M 19pins, Binder, P/N: 99-5461-00-19
OC I/O option	4x isolated outputs, 5-24V 100mA max sink current, 100ns output delay, user configurable	
24 I/O option	4x isolated outputs, 5-48V 1A max high side switch, 20µs - 100µs output delay, user configurable	
	RS232 Serial Port, non isolated, up to 1Mb/s	
	High Speed USB, non isolated, 5V, max 100mA device power supply capable	
	Auxiliary Power Supply 12-48V DC typ. 7W, max. 12W	

Compatibility:

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

Products, brands and service names mentioned herein are the trademarks of their respective owners.

Contact:

Please visit ximea.com for complete product information. Email our sales team sales@ximea.com for your price and advanced information.



XIMEA GmbH, Germany

Hansestraße 81
48165 Münster
Germany
info@ximea.com
Tel: +49 2501 964 555-0
Fax: +49 2501 964 555-99

XIMEA s.r.o., Slovakia

Lesna 52
900 33 Marianka
Slovakia
info@ximea.com
Tel: +421 (2) 205 104 26
Fax: +421 (2) 205 104 27

XIMEA Corp., USA

2102 Beech Court
Golden, CO 80401
USA
info@ximea.com
Tel: +1 (303) 389-9838
Fax: +1 (303) 202-6350