Atom-Based PC Camera.

Starter kit includes pre-installed & configured Windows and vision libraries demos.
Get your high-performance vision application running within minutes.

1:1 scale

R

currera

The complete vision system.

Runs Windows or Linux

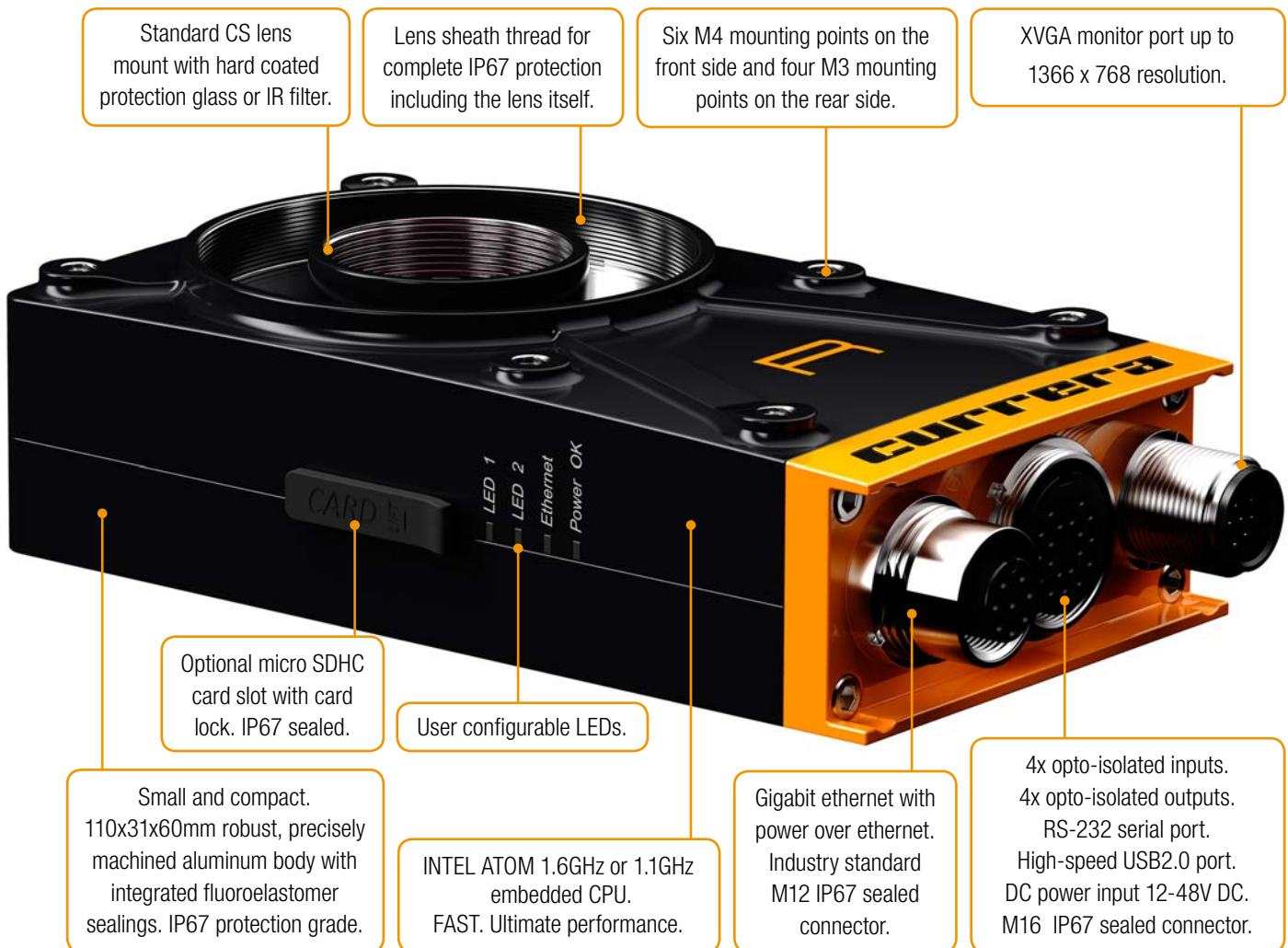## & leading vision libraries.

Ultimate performance.

Price. Performance. Compatibility. Support.

XIMEA

CURRERA R-series quick facts

- Perfectly matched and tuned image-acquisition datapath at 2.5Gbit/s. Up to 200fps, 1600fps at 1280 x 32.
- Processor power remains always 100% free and available for vision application. Excellent performance.
- Starter kit comes with pre-installed, configured and ready-to-run Windows XP Embedded and demo applications for leading vision libraries: MVTec HALCON, National Instruments LabVIEW, STEMMER IMAGING Common Vision Blox, MathWorks MATLAB, Open CV and many others.

Standard CS lens mount with hard coated protection glass or IR filter.

Lens sheath thread for complete IP67 protection including the lens itself.

Six M4 mounting points on the front side and four M3 mounting points on the rear side.

XVGA monitor port up to 1366 x 768 resolution.

Optional micro SDHC card slot with card lock. IP67 sealed.

User configurable LEDs.

Small and compact. 110x31x60mm robust, precisely machined aluminum body with integrated fluoroelastomer sealings. IP67 protection grade.

INTEL ATOM 1.6GHz or 1.1GHz embedded CPU. FAST. Ultimate performance.

Gigabit ethernet with power over ethernet. Industry standard M12 IP67 sealed connector.

4x opto-isolated inputs. 4x opto-isolated outputs. RS-232 serial port. High-speed USB2.0 port. DC power input 12-48V DC. M16 IP67 sealed connector.

- Up to 1GB DDR2 and 4GB onboard solid state disk drive. Storage expandable by micro SDHC Card.
- INTEL 1.6GHz or 1.1GHz embedded processors. Faster than you would expect.
- Windows XP, Windows Embedded Standard 7, WES 2009 or Linux with drivers and ready-to-run system images.
- Choice of high-sensitivity sensors from WVGA to 5 Mpix.
- GenICam and GenTL compatible.
- Exceptional performance of Windows Embedded 7 TCP/IP stack.
- Power supply over PoE or external 12V-48V DC.
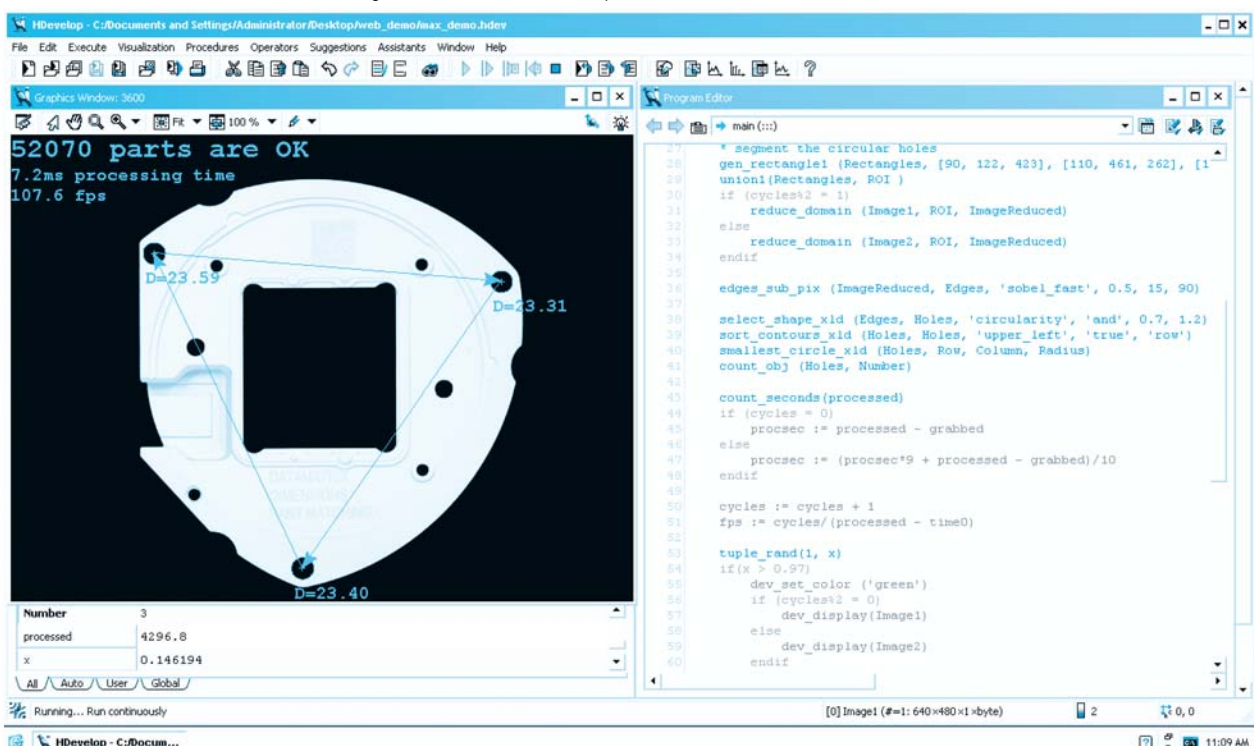
GEN<i>CAM

GEN<i>CAM
TRANSPORT LAYER

Leading vision libraries integrated

- Hassle free. Finally once and forever forget about all hardware-software compatibility issues, protocols and overheads.
- Drivers and demo applications for leading vision libraries included:

  MVTec HALCON, National Instruments LabVIEW, MathWorks MATLAB,

  STEMMER IMAGING Common Vision Blox, Open CV and many others.
- Combinations of OS and vision libraries supplied as pre-configured and fully tested disk image deployable within minutes.
- Just one stop support of the camera, PC and vision libraries integration.
- Open online community: Share experience, exchange knowledge and solutions at www.ximea.com/community

MVTec Software GmbH — **HALCON**

COMMON VISION BLOX

POWERED BY — **NATIONAL INSTRUMENTS LabVIEW**™

COGNEX VISIONPRO

MathWorks™ **MATLAB**®

NEURO CHECK — Industrial Vision Systems

OpenCV

Roborealm™ vision for machines

NEUROtechnology — Biometric and Artificial Intelligence Technologies

SCORPION VISION SOFTWARE®

libdmtx — Open Source Data Matrix Software

sanxo

INTOPII

PINTA

IVT

leckyintegration

voyant VISION

AQsense enhancing 3D

SAL3D Shape Analysis Library

digitaloptics Precision Digital Imaging

AForge.NET FRAMEWORK

keyetech

Adaptive Vision

Screenshot of CURRERA-R model RL13 running MVTec's HALCON 10 development environment:

CURRERA-R specifications

Electrical, mechanical and environmental:

Power requirements	Power over ethernet IEEE802.3af: typ. 7W max. 12W	Power via DC power port: 12-48V DC typ. 7W, max. 12W
Housing dimensions without heatsink	WxHxD 59.2 x 109.8 x 31 mm	Optional lens sheath: height 60 mm, internal diameter 50mm
Housing dimensions with heatsink attached	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	1000BASE-T IEEE802.3af ethernet with PoE	M12 M 8pins, Binder, P/N: 09-3482-275-08
Monitor	XVGA max 1366 x 768 pixels resolution	M12 F 12pins, Binder, P/N: 99-1492-822-12
Multi I/O connector	4x opto-isolated inputs, 5-24V 20mA max input current, 100nS trigger delay, user configurable	M16 M 19pins, Binder, P/N: 99-5461-00-19
	4x opto-isolated inputs, 5-24V 100mA max sink current, 100nS output delay, user configurable	
	RS232 Serial port, non isolated, up to 1Mb/s	
	High-speed USB2.0, non isolated, 5V, max 500mA device power supply capable	
	DC power supply 12-48V DC typ. 7W, max. 12W	

Processor, memory and video options:

Processor and chipset	DDR2 RAM	SSD	Internal micro SDHC card	External micro SDHC card slot	Analog video output
Intel Atom Z530 1.6GHz US15W	1GB 533MHz	4GB	optional	optional	XVGA max 1366 x 768
Intel Atom Z510 1.1GHz US15W	512MB 400MHz	1GB	optional	optional	XVGA max 1366 x 768

Sensors:

B/W Sensor	WVGA Aptina MT9V034C12STM		1.3MP e2v EV76C560ABT		5MP Aptina MT9P031I12STM	
Color Sensor	WVGA Aptina MT9V034C12STC		1.3MP e2v EV76C560ACT		5MP Aptina MT9P031I12STC	
Resolution	752 x 480 pixels		1280 x 1024 pixels		2592 x 1944 pixels	
Type	CMOS global shutter		CMOS global shutter		CMOS rolling shutter	
Active area size	1/3" 4.51 x 2.88 mm		1/1.8" 6.9 x 5.5 mm		1/2.5" 5.7 x 4.28 mm	
Bit depth	8,10,(12) bits		8,10 bits		8,10,12 bits	
Basic readout modes	Resolution:	fps:	Resolution:	fps:	Resolution:	fps:
Full resolution	752 x 480	60	1280 x 1024	60	2592 x 1944	15
Half resolution	376 x 240	200	640 x 512	100	1296 x 972	45
Quarter resolution	-	-	320x240	200	648 x 486	80

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XIMEA strives to deliver extremely compact cameras and imaging systems with the highest levels of processing power, maximum compatibility and extraordinary support at competitive prices. The scope covers industrial cameras for motion control, assembly, robotics, and industrial inspection and process control, as well as scientific cameras for life and material sciences, security, law enforcement and defense applications.

XIMEA GmbH
Hafenplatz 4
48155 Münster
Germany
info@ximea.com
Tel: +49 (251) 590 686 0
Fax: +49 (251) 590 686 99

XIMEA s.r.o.
Lesna 52
900 33 Marianka
Slovakia
info@ximea.sk
Tel: +421 (2) 205 104 26
Fax: +421 (2) 205 104 27

XIMEA Corp.
2102 Beech Court
Golden, CO 80401
USA
info@ximea.com
Tel: +1 (303) 748-4346
Fax: +1 (303) 202-6350