

CORSIGHT 

# Decentralized image processing.

SMART VISION SYSTEM - EMBEDDED COMPUTER | MATRIX AND LINE SCAN

  
NEW ELECTRONIC TECHNOLOGY

# CORSIGHT – DECENTRALIZED IMAGE PROCESSING

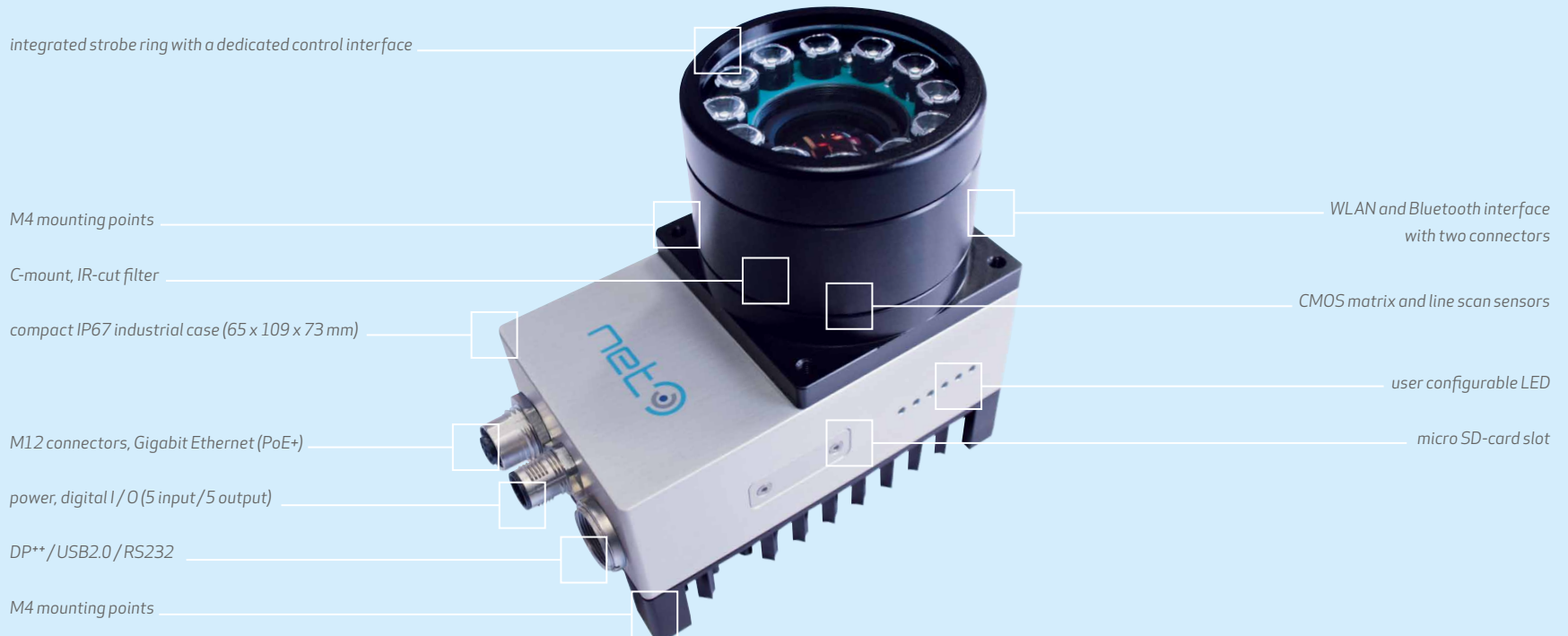
CORSIGHT - Create your vision solution.

## CORSIGHT – INTEGRATED VISION SOLUTION AT A GLANCE

NET's smart vision system, CORSIGHT, is a versatile all-in-one system for decentralized image processing. Customers can choose from a wide configuration range in order to get the image processing solution, which matches best their application demand. The smart vision system comes with all hardware and software in one compact industrial housing to improve the overall performance of industrial applications.

CORSIGHT includes a Intel Quad Core CPU and a FPGA to perform efficiently most challenging applications in real-time. NET offers CORSIGHT with a freely programmable FPGA, so customers can apply their own algorithms as part of their solution. They can choose any image library to run on CORSIGHT: third-party or proprietary. Both Windows™ and Linux as operating system are offered.

CORSIGHT can be equipped with matrix scan or line scan CMOS image sensors. Multiple industrial connectors and interfaces as well as the option of wireless connection facilitate optimal integration into custom systems and reflect its excellent networking capabilities. Matching standard or custom lenses and a software-controlled integrated strobe ring are on CORSIGHT's feature list.



# APPLICATION & SOFTWARE

## APPLICATION OVERVIEW

CORSIGHT's features deliver great benefit to all kind of applications being remote, in rough environments, or resource-intensive in regard of computing power, data transfer or system architecture. Special demand for CORSIGHT occurs amongst others in traffic control, security / surveillance, robotics / automation, and distribution systems.

## SOFTWARE INTEGRATION & 3<sup>RD</sup> PARTY SOFTWARE

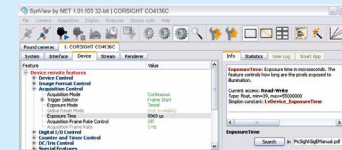
CORSIGHT features full compliancy to GenICam and GenTL standards and is easily accessible by means of 3<sup>rd</sup> party software. Drivers are available for most

common image processing libraries, namely Adaptive Vision Studio, Halcon, Activision-Tools, Common Vision Blox, MATLAB, and OpenCV.

## SYNVIEW: SOFTWARE INTERFACE FOR ALL APPLICATIONS

The included SDK/API, SynView, stands for simple control and easy integration into existing customer systems. It runs under Windows Embedded Standard 7 and Linux. SynView supports the most common programming languages C, C++ and the framework .NET class library. The software covers a wide range

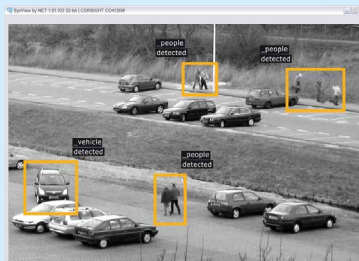
of functionalities for the control of image capture (I/O triggering) and memory management. The viewer facilitates the setting and evaluation of image data via various functionalities. The included quick code generator makes the creation of code examples an easy task, and speeds up the workflow of hands-on users.



SynView: quick image setting and application creation



### COMPACT INDUSTRIAL CASE



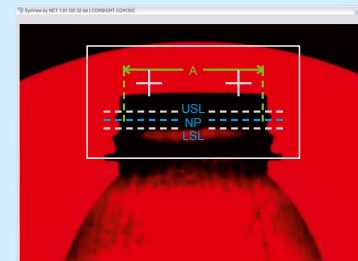
IP67  
M12 CONNECTOR

### INTEGRATION/COMPATIBILITY



WINDOWS EMBEDDED STANDARD 7, LINUX /  
STANDARD IMAGE PROCESSING SOFTWARE  
PACKAGES

### REAL-TIME IMAGE PROCESSING



ONBOARD CUSTOM ALGORITHMS

### WIRELESS/REMOTE NETWORKING



WLAN / BLUETOOTH / GSM  
GIGABIT ETHERNET (POE+)

# CORSIGHT – TECHNICAL DATA

		MATRIX SCAN						LINE SCAN			
		COLOR	CO1041C2		CO4136C2		CO4206C2	CO2239C2	CO1503C2	2K	4K
		MONOCHROME	CO1041M2	CO4136M2	CO4136IR2	CO4206M2	CO2239M2	CO1503M2	COL6270M2	COL6435M2	
CAMERA	Resolution (HxV) [px]		752x 480	1280 x 1024		1600x1200	1920x1200		2592x 1944		
	Sensor		CMOS								
	Image sensor		MT9V034	EV76C560	EV76C661	EV76C570	IMX174LLJ-C	IMX174LQJ-C	MT9P031		
	Sensor size		1/3"	1/1.8"		1/1.8"	1/1.2"		1/2.5"		
	Pixel size [µm]		6.0x6.0	5.3x5.3		4.5x4.5	5.86x5.86		2.2x2.2		
	Frame rate [fps]		62	60		50	60		14		
	Shutter		global	global; rolling; global reset			global		rolling		
	Shutter speed		10 µs – 1 s	16 µs – 1 s		31 µs – 1,030 ms	20 µs – 34 s		39 µs – 55 s		
	Dynamic range [dB]		49	color: 62, mono: 63		62	75.6		70		
	Binning		- / 2/4 x 2/4	2/4/8/16 x 2/4/8/16		2 x 2	-		2/4 x 2/4		
	Aspect ratio		3:2	5:4	4:3		16:10		4:3		
	Scanning system		progressive								
	Lens		C-Mount								
	Strobe ring		integrated strobe ring with a dedicated control interface (optional)								
	Industrial case		IP67								
	Dimension (WxHxD) [mm]		65 x 109 x 73 (without connectors and optics)								
	Weight [g]		516								
	Operating temperature		0 - 50 °C								
	Operating relative humidity [%]		20 - 95, non-condensing								
Power consumption [W]		24 VDC ±10%, 15 W (typical) or PoE+									
Certification		IP67, CE, FCC									
INTERFACES	Networking	Gigabit Ethernet (1x, optional 2x), WiFi, Bluetooth, GSM (optional), USB 2.0									
	Digital input / output	4x optocoupler, 1x TTL									
	Serial	RS232									
	Video	DP**									
	SD-Card	micro SD card slot									
PC TECHNOLOGY	CPU	Intel Atom E3845 1.91 GHz									
	RAM	4 GB DDR3									
	Mass storage	16 GB solid state drive (optional: 32 GB)									
	FPGA	ARTIX 7									
	Supported operating system	Windows Embedded Standard 7, Linux (optional: Windows Embedded Standard 8, CENTOS 7, RTOS)									
Supported image processing libraries system	Adaptive Vision Studio, Halcon, ActivisionTools, Common Vision Blox, MATLAB, OpenCV										

## About NET New Electronic Technology GmbH

NET has more than 20 years of experience in supporting customers' applications with smart camera technology and custom camera solutions. NET adds value to the applications of OEMs, system integrators and machine builders through custom vision solutions and a portfolio of cameras and components with unique features. The company offers both know-how in vision technologies and an extensive portfolio.

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