Decentralized Smart Vision Solution

MACHINE VISION

Independent decisions and actions in real-time are the core competencies of CORSIGHT. The integrated smart vision solution comes with matrix and line scan image sensors, including high-speed image sensors for the fastest processes.

Users can freely combine the resources of the Intel Quad Core CPU and the FPGA for hardware acceleration. This means that machines can achieve the fastest cycle times with real-time image processing. Available potential is tapped to its full extent.

CORSIGHT offers the NET Open Camera Concept for the customer-specific configuration of the software solution. The customer's trusted vision expertise in the form of IP cores and image processing software can be easily integrated into CORSIGHT.

Drivers for various license-free, licensable and proprietary libraries are available. The NET library also contains innovative algorithms for image enhancement and optimization.

We also offer a wide range of interface options for integrating the IP67-certified smart vision solution. There are no limits to your creativity when it comes to integrating and controlling CORSIGHT: this can be by remote access via WLAN or Bluetooth, synchronization with other devices (PLC), as the host system of a multi-camera system for GigE vision cameras or, optionally, even as a GigE vision camera. CORSIGHT opens up new possibilities for your application!

Highlights >

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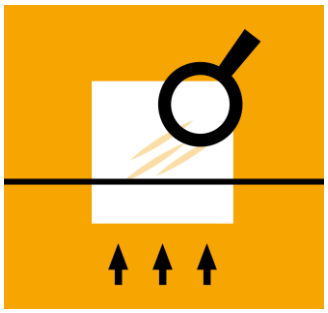
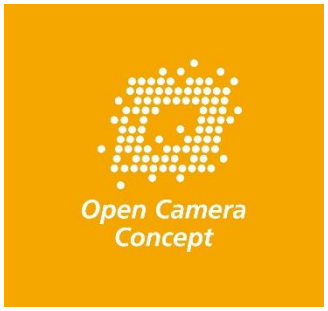
HIGHLIGHTS



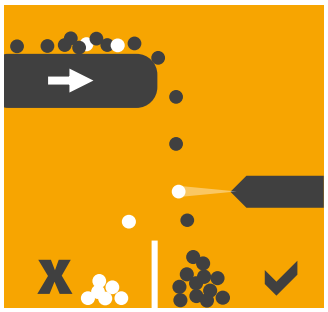
Smart line scan vision solution

CORSIGHT enables users to enjoy the benefits of a line scan camera together with the opportunities offered by a unique smart vision solution. As a decentralized vision solution, CORSIGHT offers a more efficient approach, particularly for line scan applications with endless processes: real-time image processing enables decisions to be made and control circuits to be regulated directly in the camera. There is no need to make any alterations to the previously-used application - the existing vision know-how can, in fact, be integrated into CORSIGHT.



Customizable

With CORSIGHT, users are free to choose which software to use to solve the application decentrally. The user's own vision know-how can be integrated directly into CORSIGHT. The camera becomes a unique vision solution presenting new competitive advantages. As a GenICam-compatible camera, CORSIGHT offers tremendous freedom of choice for configuring the software architecture. The user decides which image processing library or proprietary software should be run under which Windows or Linux operating system.



Powerful and fast

CORSIGHT enables the real-time processing of high-speed images from the most sophisticated applications. New performance leads can be gained thanks to CORSIGHT's computing resources. Users can achieve real-time image processing by combining current multi-core CPU and FPGA technologies. The result is the fast and reliable control of both quality and processes, satisfying the highest demands.

Technical Datasheet

CORSIGHT

Decentralized Smart Vision Solution

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TECHNICAL DATA

Matrix scan models*	Sensor type	Image sensor	Resolution [px]	Format	Frames per second	Pixel size [µm]	Shutter
CO7137M3	monochrome	LUX1310	1280 x 1024	2/3“	1070	6.6	global
CO4136M2	monochrome	EV76C560	1280 x 1024	1/1.8"	60	5.3	global; rolling; global reset
CO4136IR2	monochrome	EV76C661	1280 x 1024	1/1.8"	60	5.3	global; rolling; global reset
CO4136C2	color	EV76C560	1280 x 1024	1/1.8"	60	5.3	global; rolling; global reset
CO4206M2	monochrome	EV76C570	1600 x 1200	1/1.8"	50	4.5	global; rolling; global reset
CO4206C2	color	EV76C570	1600 x 1200	1/1.8"	50	4.5	global; rolling; global reset
CO2239M2	monochrome	IMX174	1920 x 1200	1/1.2"	60	5.86	global
CO2239C2	color	IMX174	1920 x 1200	1/1.2"	60	5.86	global
CO1503M2	monochrome	MT9P031	2592 x 1944	1/2.5"	14	2.2	rolling; global reset
CO1503C2	color	MT9P031	2592 x 1944	1/2.5"	14	2.2	rolling; global reset

Line scan models*	Sensor	Pixel count	Pixel size [µm]	Line scan rate [kHz]	Sensor length [mm]
COL6270M2	monochrome	2048	7.00	66	14.33
COL6435M2	monochrome	4096	3.50	33	14.33

IMAGE PROCESSING

	2nd model series*	3rd model series*
CPU	Intel Atom E3845, Quad Core 1.91 GHz	Intel Atom E3940, Quad Core 1.60 GHz
RAM	4 GB DDR3-1333	8 GB DDR4-2133 Dual Channel
SSD	16 GB	32 GB
FPGA	Artix 7 -75 @150MHz via PCIe 2.0 x1	Artix 7-100 @200MHz via PCIe 2.0 x4 | NET Open Camera Concept
Supported operating systems	Windows 10 IoT	
	CentOS 7, optional: RTOS	
Supported image libraries	Adaptive Vision Studio, HALCON, VisionPro, OpenCV, MATLAB, MIL, Common Vision Blox	

INTERFACES

Networking	Gigabit Ethernet, Wi-Fi, Bluetooth, GSM (optional)
Digital input / output	4x optocoupled (max. 100KHz), 1x TTL (max. 10MHz)
USB	1x USB 2.0
Serial	1x RS232
Display	2. Model series: DisplayPort 1.1 3. Model series: DisplayPort 1.2
SD card	Micro SD HC

* The last digit of the camera name indiciates the model series.

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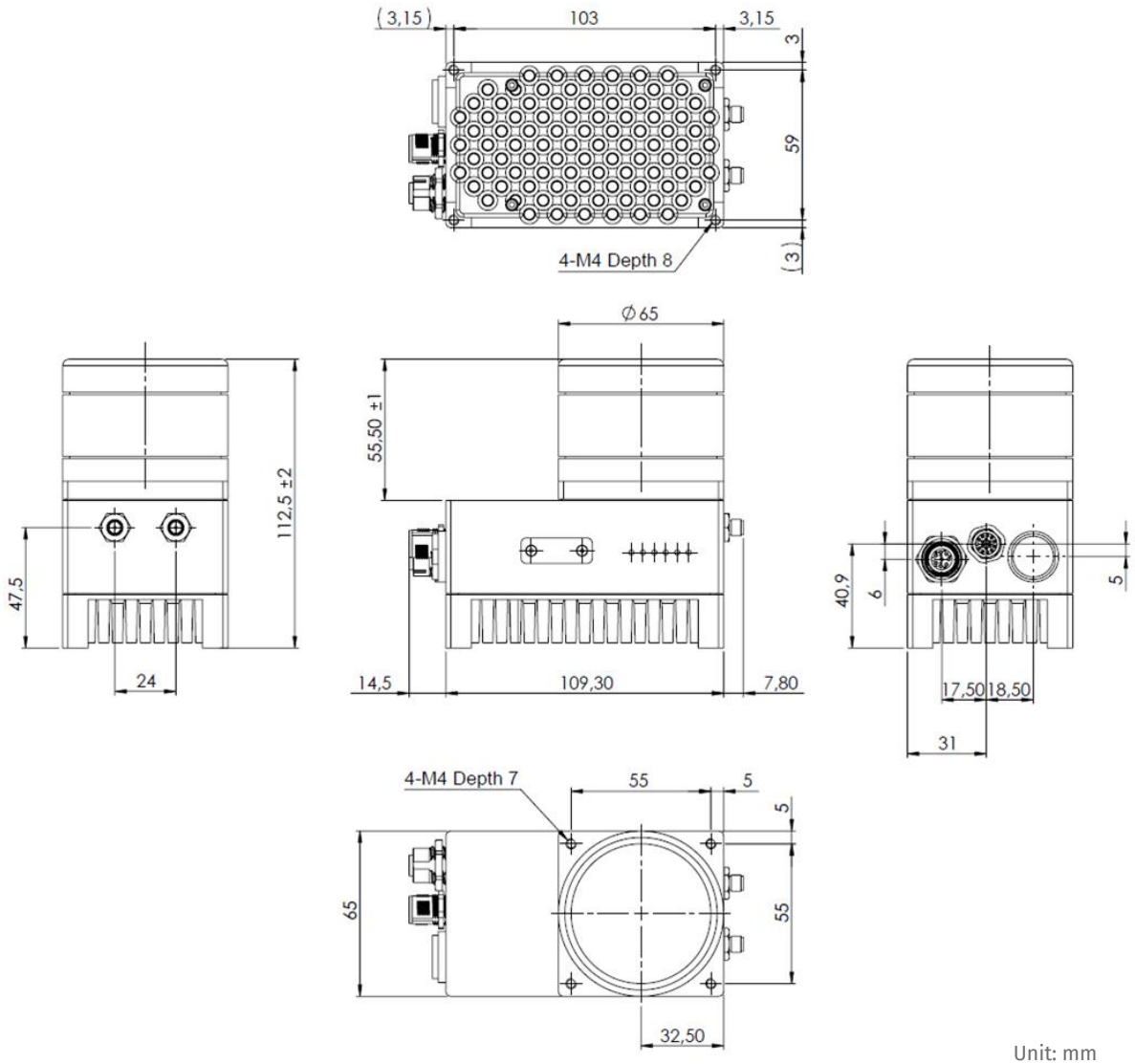
LAYOUT



Unit: mm

Lens mount	C
Strobe Ring	integrated strobe ring with a dedicated control interface (optional)
Dimensions (WxHxD) [mm]	65 x 109 x 73
Housing	IP67

Weight [g]	516
Power consumption [W]	24 VDC +/- 10%, 18W or PoE+
Operating temperature [°C]	0 to +50
Certification	CE, FCC