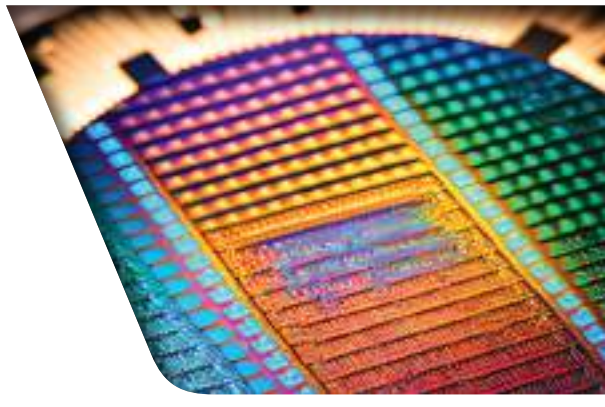
Allied Vision

Precision. Delivered.



// ALLIED VISION PORTFOLIO

Area Scan Vision Solutions

// MORE THAN JUST CAMERAS

All You Need for Vision – From One Source

Camera + frame grabber set

Frame grabbers are specialized hardware devices designed to capture images from high-performance cameras and efficiently transfer them to a computer for processing. They are essential components in inspection systems, ensuring precise control and synchronization of image acquisition for both line-scan and area-scan applications while providing reliable image transfer with minimal latency and reduced host CPU load.

Key features and benefits:

Performance Optimization: Frame grabbers deliver high-speed, synchronized image acquisition with reliable data transfer, making them indispensable in demanding machine vision applications.

Digital I/O Integration: Onboard digital inputs/outputs enable seamless interfacing with other inspection system components, including quadrature encoders, object detectors, and light strobes.

Real-time Image Processing: The dedicated hardware can process acquired images directly within the data stream, maintaining low system latency while significantly reducing the host CPU workload for inspection applications.

Accessories

Allied Vision provides a carefully curated selection of machine vision accessories designed to deliver the highest precision and long-term reliability in industrial imaging. From robust cables and high-accuracy mounts to reliable trigger solutions, optical filters and I/O components, every accessory is selected, verified and recommended by our experts to ensure optimal performance in combination with our cameras.

Our engineers conduct extensive tests to evaluate image quality, electrical and mechanical compatibility, heat resistance, latency stability and long-term durability under demanding conditions. Based on these results, we recommend accessories that guarantee optimal image quality, streamline integration and reduce engineering effort, while ensuring dependable operation throughout the entire lifecycle of your system. This enables the development of robust and precise vision solutions — built with components you can trust.

Lenses

A machine vision system depends on the right optics. That's why Allied Vision provides a selection of approved lenses designed to ensure the best possible performance of our cameras. Our portfolio includes compact S-mount lenses for space-saving applications and high-precision C-mount lenses optimized for small pixel sizes and demanding imaging tasks. In addition, we offer selected lenses from qualified manufacturers to provide the ideal match for a wide range of sensor formats and use cases.

Every recommended lens undergoes extensive testing by our engineers to verify optical quality, matching resolution, distortion behavior, transmission, mechanical stability and reliable operation under industrial conditions. This allows us to approve only lenses that deliver sharp, consistent and repeatable results — ensuring predictable image quality from development to long-term use in your application.

By combining Allied Vision cameras with approved lenses, you can reduce integration effort, gain consistent imaging results and build reliable systems with confidence — engineered to earn your trust.

Linescan- and POL-, UV-, SWIR- Cameras

Industrial applications often require more than standard vision. Whether it is measuring fast-moving materials, analyzing invisible wavelengths or detecting properties beyond color information, Allied Vision provides dedicated imaging solutions engineered for precision and reliability in demanding environments.

Our portfolio includes high-performance linescan cameras for continuous inspection of moving goods, as well as spectral and polarization-based technologies such as UV, SWIR and Polarized imaging. These specialized cameras enable insight that goes beyond the visible spectrum — capturing surface defects, material characteristics, contamination, structural stress, moisture levels or chemical variations that conventional imaging cannot detect.

Every solution is developed with a strong focus on industrial robustness, image quality and compatibility with machine vision ecosystems. Combined with approved accessories and optimized optics, Allied Vision empowers system integrators and manufacturers to build reliable inspection systems that reveal critical information — precisely where it matters.

// SELECTED CAMERA PORTFOLIO AT A GLANCE

Features comparison

Visit our website at **www.alliedvision.com** and compare the cameras of your choice!

	Alvium				Goldeye			Alecs	EXO			FXO				HR			SHR		EoSens
Image optimization features	C/FP3/ GM2/CSI-2	U	G1	G5	G1/G5	CL	Pro G5	GigE	GigE	USB	CL	10GigE	25GigE	100GigE	CXP	10GigE	CXP	CL	10GigE	CXP	CXP
Defect pixel correction	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓(1)
Fixed Pattern, Noise Correction (FPNC) / NUC	✓	✓(1)	✓(1)	✓(1)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Region of interest (ROI)	✓	✓(2)	✓(2)	✓(2)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Binning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓(1)
Auto gain	✓	✓	✓	✓	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓(1)
Auto exposure	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓(1)
Auto white balance	✓	✓	✓	✓	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lens shading correction	✓	✓	✓	✓	–	–	–	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓(1)
Look-up tables (LUT)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓(1)
Gamma correction	✓	✓	✓	✓	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hue, saturation, color correction	✓	✓	✓	✓	–	–	–	✓	–	–	–	✓	–	–	✓(1)	–	–	–	–	–	–
Reverse X/Y	✓	✓	✓	✓	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
Multi RoI	–	✓(1)	✓(1)	✓(1)	✓	✓	✓	–	–	–	–	–	–	–	–	–	–	–	–	✓(1)	✓(1)
Camera control features																					
Bandwidth control	–	✓	✓	✓	✓	–	✓	–	✓	–	–	✓	✓	✓	–	✓	–	–	✓	–	–
Flow Control	–	–	✓	✓	–	–	✓	–	✓	–	–	✓	✓	✓	–	✓	–	–	✓	–	–
Chunk data	–	✓	✓	✓	✓	–	✓	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Sync out modes	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Trigger modes: single	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Trigger modes: bulk	–	–	–	–	✓	✓	✓	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Trigger modes: level	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Trigger Counters:	✓	✓	✓	✓	–	–	✓	✓	–	–	–	–	–	–	–	–	–	–	–	–	✓
Trigger Timers:	✓	✓	✓	✓	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Serial Communication	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓(1)
Event channel	–	✓	✓	✓	✓	✓	✓	–	✓	–	–	✓	✓	✓	–	✓	–	–	✓	–	–
IEEE 1588 Precision Time Protocol (PTP)	–	–	✓	✓	–	–	–	–	✓	–	–	✓	✓	✓	–	✓	–	–	✓	–	–
Action commands	–	–	✓	✓	–	–	–	–	✓	–	–	✓	✓	✓	–	✓	–	–	✓	–	–
Sequencer (1)	–	✓	✓	✓	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓(1)
Storable user sets	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature monitoring	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Strobe Control	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓(1)
File Access Control	✓	✓	✓	✓	✓	✓	✓	✓	✓	–	–	✓	✓	✓	–	✓	–	–	✓	–	✓(1)
Lens Control	–	✓	✓	✓	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓(1)
Customer ID	–	–	–	–	–	–	–	–	✓	✓	–	✓	✓	✓	✓	✓	✓	–	✓	✓	–
Readout Control	✓	✓	✓	✓	✓	–	✓	✓	✓	–	–	✓	✓	✓	–	✓	–	–	✓	–	–

(1) Selected models only, please contact our sales team for details (2) multiple RoI (up to 4) selected models only

// SOFTWARE PORTFOLIO

Discover our software

Vimba X

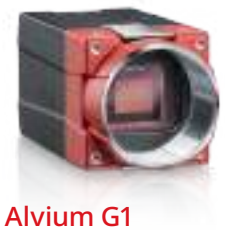
Vimba X stands for a new generation SDK. Fully GenICam compliant, it has been especially designed for best compatibility with the Alvium camera series and supports the latest Alvium feature set. It runs on Windows 10 and 11, Linux, and Linux ARM (all 64-bit). Vimba X contains APIs for Python, .NET, C++, and C. You can port your source code from Windows to Linux or cross-compile from a Linux PC to an embedded system. Vimba X supports all SVS-Vistek GigE and 10GigE cameras as well as the CXP-12 cameras. It also provides easy connectivity to Euresys Open eVision image processing libraries through a dedicated Vimba X software bridge, best compatibility with the Allied Vision portfolio. It runs on Windows 10 and Windows 11, Linux, and Linux ARM (all-64-bit), and MacOS (Apple Silicon).
Vimba X provides lean yet high-performance APIs optimized for USB, GigE, Coaxpress, and CSI-2 cameras. It provides easy connectivity to Euresys Open eVision image processing libraries through a dedicated Vimba X software bridge.
Vimba X includes dedicated tools for defect pixel management, camera calibration, bandwidth management, and a camera simulator.

You can download Vimba and Vimba X for free from our website:
www.alliedvision.com/en/products/software/

Software and drivers for embedded vision, open source projects

Visit www.github.com/alliedvision to discover our software, examples, and drivers for embedded vision and our open source projects:

// Alvium CSI-2 camera driver for NVIDIA Jetson, Raspberry Pi 5, NXP i.MX 8M Plus, AMD Xilinx ZYNQ
// V4L2 Viewer
// Examples for Alvium CSI-2 cameras (V4L2)
// gst-vimbasrc and gst-vmbsrc, plugins to access Vimba and Vimba X from GStreamer pipelines
// Broad support for the Yocto project with various meta layers.



Alvium Series

// Alvium G1

The Alvium camera platform is the broadest machine vision camera platform on the market, spanning more than 30 image sensors ranging from the UV, visible, NIR, to SWIR spectrum with 6 interface options to choose from. Additonally, it offers a comprehensive feature set across all interfaces enabling easy switching from GigE to USB3 to CSI-2. It offers endless customization possibilities via its modular concept with board level versions, various connector and filter options, and further OEM personalization options.

// Alvium G5

Alvium G5 offers an easy upgrade path for current vision systems with 1GigE. With its sugar cube form factor and support for Power over Ethernet (PoE), it can be a true drop-in replacement offering higher bandwidth with the convenient and comprehensive GigE Vision feature set including PTP and Action Commands.

// Alvium U

The versatile Alvium U cameras of the 1800 U series offer highest bandwidths of up to 450MB/s in an unmatched form factor of 26x26mm in the Boardlevel version; perfect for deep system integration and OEM developments. With various connector options or a flex version with just a board to board connector or a high precision frame for highest optical accuracy, they provide maximum freedom of integration. All of this with the most comprehensive Sony sensor offering in the industry.

// Alvium C

The MIPI CSI-2 Alvium camera gives embedded system developers access to Sony's high-performance image sensors. Alvium C combines a compact sugar cube format with large high-resolution sensors. It offers the highest possible resolution within such a small housing (bare board, open housing). With various control options it allows for access via V4L2, direct registers, or Genicam4CSI-2 to ensure compatibility with standard machine vision SDKs and software.

// Alvium FPD-Link III and GMSL2

Alvium FP3 / GMSL2 cameras have been designed to overcome the limitations of standard CSI- 2 cameras. With a large choice of high-quality CMOS global and rolling shutter sensors Allied Vision is offering the broadest variety of FPD-Link III cameras in the market. The CSI-2 based closed housing cameras come with an integrated serializer and two rugged interface connectors to choose from.

Key facts

// Long-term availability
// Easy migration between different Alvium series
// Fast prototype development and time-to-market
// Easy system integration
// Same form factor (H x W 0 29 mm x 29 mm) for all Alvium series
// Industrial-grade hardware with screw locks
// Small size, low weight, low power consumption

[MP]	Sensor	Resolution [Pixel]	Format	Shutter	Mono / color / mono NIR / color NIR	Pixel Size [µm]	Camera model G1-	fps	Camera model G5-	fps	Camera model 1800 U	fps	Camera model 1800 C	fps	Camera model FP3/GM2-	fps
0.4	Sony IMX287 CMOS	728 × 544	1/2.9	GS	• / • / - / -	6.9 × 6.9	040	276	–	–	040	495	040	302	040	*
0.5	ON Semi PYTHON 480 CMOS	808 × 608	1/3.6	GS	• / • / - / -	4.8 × 4.8	–	–	–	–	050	117	050	117	050	*
0.5	Sony IMX426 CMOS	816 x 624	1/1.7	GS	• / • / - / -	9 x 9	–	–	052	464	050	691	052	499	052	*
1.2	ON Semi AR0135CS CMOS	1280 × 960	1/3	GS	• / • / - / -	3.75 × 3.75	–	–	–	–	120	52	120	52	120	*
1.3	E2V EV76C560 CMOS	1280 × 1024	1/1.8	GS	• / • / - / -	5.3 x 5.3	131	59	–	–	131	59	–	–	–	–
1.6	Sony IMX273 CMOS	1456 × 1088	1/2.9	GS	• / • / - / -	3.45 × 3.45	158	72	–	–	158	258	158	157	158	*
1.9	E2V EV76C570 CMOS	1600 × 1200	1/1.8	GS	• / • / - / -	4.5 × 4.5	192	59	–	–	192	59	–	–	–	–
2.0	Sony IMX422 CMOS	1632 × 1248	1/1.7	GS	• / • / - / -	4.5 x 4.5	–	–	203	225	203	200	203	156	–	–
2.1	ON Semi AR0521SRHD CMOS	1928 × 1088	1/3.6	GS	• / • / - / -	2.2 × 2.2	–	–	–	–	–	–	–	–	210	*
2.4	Sony IMX249 CMOS	1936 x 1216	1/1.2	GS	• / • / - / -	5.86 × 5.86	234	40	–	–	234	40	234	31	234	*
	Sony IMX174 CMOS	1936 × 1216	1/1.2	GS	• / • / - / -	5.86 x 5.86	–	–	–	–	235	90	235	155	235	*
2.4	Sony IMX392 CMOS	1936 × 1216	1/2.3	GS	• / • / - / -	3.45 × 3.45	240	49	240	192	240	178	240	128	240	*
2.8	Sony IMX421 CMOS	1944 x 1472	2/3	GS	• / • / - / -	4.5 x 4.5	–	–	291	166	291	144	291	116	291	*
3.2	Sony IMX265 CMOS	2064 × 1544	1/1.8	GS	• / • / - / -	3.45 × 3.45	319	36	–	–	319	54	319	54	319	*
5.0	ON Semi AR0521SR CMOS	2592 × 1944	1/2.5	RS	• / • / - / -	2.2 × 2.2	500	23	500	68	500	68	500	68	500	*
5.0	ON Semi AR0522 CMOS	2592 × 1944	1/2.5	RS	• / • / - / -	2.2 × 2.2	–	–	–	–	501	68			501	*
5.1	Sony IMX264 CMOS	2464 × 2056	2/3	GS	• / • / - / -	3.45 × 3.45	507	23	–	–	507	34	507	34	507	*
5.1	Sony IMX250 CMOS	2464 × 2056	2/3	GS	• / • / - / -	3.45 x 3.45	–	–	508	95	508	85	508	66	508	*
5.1	Sony IMX548 CMOS	2464 × 2064	1/1.8	GS	• / • / - / -	2.74 x 2.74	510	23	510	79	510	79	510	81	510	*
5.1	Sony IMX547 CMOS	2464 × 2064	1/1.8	GS	• / • / - / -	2.74 x 2.74	–	–	511	79	511	79	511	79	511	*
8.1	Sony IMX546 CMOS	2848 × 2848	2/3	GS	• / • / - / -	2.74 × 2.74	811	14	811	58	811	51	811	59	811	*
8.9	Sony IMX267 CMOS	4112 x 2176	1	GS	• / • / - / -	3.45 x 3.45	895	13	–	–	895	31	895	31	895	*
12.4	Sony IMX304 CMOS	4112 × 3008	1.1	GS	• / • / - / -	3.45 × 3.45	1236	9	–	–	1236	23	1236	23	1236	*
12.2	Sony IMX226 CMOS	4024 x 3036	1/1.7	RS, GS-Reset	• / • / - / -	1.85 × 1.85	1240	9	1240	35	1240	35	1240	41	1240	*
12.4	Sony IMX545 CMOS	4128 × 3008	1/1.1	GS	• / • / - / -	2.74 x 2.74	1242	9	1242	39	1242	34	1242	39	1242	*
16.2	Sony IMX542 CMOS	5328 × 3040	1.1	GS	• / • / - / -	2.74 × 2.74	1620	7	1620	30	1620	26	1620	30	1620	*
20.4	Sony IMX541 CMOS	4512 × 4512	1.1	GS	• / • / - / -	2.74 x 2.74	2040	5	2040	24	2040	21	2040	24	2040	*
20.2	Sony IMX183 CMOS	5496 × 3672	1	RS	• / • / - / -	2.4 × 2.4	2050	5	2050	21	2050	21	2050	25	2050	*
24.6	Sony IMX540 CMOS	5328 × 4608	1.2	Global	• / • / - / -	2.74 x 2.74	2460	4	2060	20	2060	17	2060	20	2060	*

*** fps depends on hardware and register settings**

Series / Interface	Hardware options	Mounts	Dimensions L × W × H in mm
Alvium G1	Closed Housing, Board Level	C / CS / S	41 × 29 × 29 (Closed Housing)
Alvium G5	Closed Housing	C / CS / S	60 × 29 × 29 (Closed Housing)
Alvium U	Bareboard, open Housing, Flex, Frame	C / CS / S	38 × 29 × 29 (Closed Housing)
Alvium C	Bareboard, open Housing, Flex, Frame	C / CS / S	26 × 29 × 29 (Closed Housing)
Alvium FP3 / GMSL2	Closed Housing	C / CS / S	41 × 29 × 29 (Closed Housing)

Alecs Series
Open Smart Camera

// Alecs

Alecs combines the feature-rich Alvium camera platform with the powerful NVIDIA® Jetson Orin™ NX 16GB System on Module (SoM) in a robust IP67 housing. With Alvium camera at its core, Alecs offers a wide range of integrated sensors and a comprehensive feature set for image processing. Compatible with the Open eVision Image analysis libraries from Euresys it has everything to process your image data on Alecs directly. The system is designed to provide enough computational power to develop and deploy sophisticated software and AI algorithms with ease.

Key facts

// High-resolution (5 and 12 MP) mono and color imaging
// NVIDIA Jetson Orin processor
// Feature-rich Alvium camera platform
// Indicator lights on left and right side (multi color)
// 2 Opto-In, 2 Opto-Out, 1 Strobe-Out, RS485-Out
// IP67 ingress protection
// M12 connectors for Ethernet and Power/IO
// Separate M12 lighting connector to run external lights

[MP]	Sensor	Model	Resolution [Pixel]	Format	Shutter	Pixel Size [µm]	Mono / color / mono NIR / color NIR	fps
5	Sony IMX548 CMOS	Alecs LXB-G1-510m/c	2,464 × 2,064	Type 1/1.8	GS	2.74 × 2.74	• / • / - / -	81 NEW
12	Sony IMX545 CMOS	Alecs LXB-G1-1242m/c	4,128 × 3,008	Type 1/1.8	GS	2.74 × 2.74	• / • / - / -	40 NEW

EXO Series

// EXO Camera Link

The EXO Camera Link impresses with its high bandwidths and broad acceptance. For the first time, the EXO also includes features such as 4IO Strobe Control and LUT in a Camera Link model.

// EXO GigE

The EXO GigE impresses with stable transmission even under high network loads and a generously dimensioned burst mode image memory, with which speeds of over 300% of the normal frame rate can be achieved.

An excellent, low-noise image with high dynamics is complemented by a comprehensive range of functions. Signal voltages, temperature resistance, I/O control, integrated strobe controller and firmware features are geared towards industrial automation applications.

// EXO USB

The EXO with USB3.1 is a compact GenICam 3.0 camera for the industrial sector, with a wide range of sensors on the market. With a real data rate of up to 360 MB/s net, it is very well suited for the most common resolutions and frame rates.

Key facts

// Various trigger and exposure modes
// Logic trigger functions (PLC)
// Adjustable gain, auto gain and auto- exposure
// Binning mode, Area of interest (AOI / ROI)
// White balance for color versions
// 4 × Power Output (4-channel strobe controller)
// Programmable sequencer für shutter and LED lights
// SDK for Windows, Linux and macOS available

			GigE	CL	USB3
[MP]	Sensor	Camera Model	Resolution [Pixel]	Format	Pixel Size [µm]	Shutter	Mount	max. Frame Rate [fps]		
1.6	Sony IMX273	exo273	1,440 × 1,080	1/2.9"	3.45	GS	C	79	–	–
2.3	Sony IMX174	exo174	1,920 × 1,200	1/1.2"	5.86	GS	C	53.6	105	160
2.3	Sony IMX249	exo249	1,920 × 1,200	1/1.2"	5.86	GS	C	41	–	41
3.1	Sony IMX252	exo252	2,048 × 1,536	1/1.8"	3.45	GS	C	–	78	115
3.1	Sony IMX265	exo265	2,048 × 1,536	1/1.8"	3.45	GS	C	39	–	55
4	CMOSIS CMV4000	exo4000	2,048 × 2,048	1"	5.5	GS	C	29.5	–	74
5	Sony IMX250	exo250	2,448 × 2,048	2/3"	3.45	GS	C	24.5	49	75
5	Sony IMX264	exo264	2,448 × 2,048	2/3"	3.45	GS	C	24.5	–	35
5	Sony IMX547	exo547	2,448 × 2,048	2/3"	2.74	GS	C	24.5	–	–
7.1	Sony IMX428	exo428	3,208 × 2,200	1.1"	4.54	GS	C	17.4	–	51.4
8.1	Sony IMX546	exo546	2,840 × 2,840	2/3"	2.74	GS	C	15	–	–
8.8	Sony IMX255	exo255	4,096 × 2,160	1"	3.45	GS	C	–	–	42
12.3	Sony IMX253	exo253	4,096 × 3,000	1.1"	3.45	GS	C	–	–	30
12.3	Sony IMX304	exo304	4,096 × 3,000	1.1"	3.45	GS	C	10	20	23
12.3	Sony IMX545	exo545	4,096 × 3,000	1/1.1"	2.74	GS	C	10	–	–
12.4	Sony IMX902	exo902	6,048 × 2,048	17.5 mm	2.74	GS	C	9	–	20 PREL
16.1	Sony IMX542	exo542	5,320 × 3,032	16.8 mm	2.74	GS	C	7	–	23
16.4	Sony IMX901	exo901	8,016 × 2,048	22.7mm	2.74	GS	C	7.5	–	15 NEW
20.2	Sony IMX183	exo183	5,496 × 3,672	1"	2.4	RS	C	6	12	17
20.3	Sony IMX541	exo541	4,504 × 4,504	17.45 mm	2.74	GS	C	6	–	18.4
24.5	Sony IMX540	exo540	5,320 × 4,600	19.27 mm	2.74	GS	C	5	–	15

// EXO M42 Mount

These EXO models have fast GigE Vision or USB3 interfaces and provide image resolutions of up to 31.4 megapixels. The sensors have large 3.45 µm pixels, delivering an excellent dynamic range up to 72 dB and high light sensitivity. Due to the sensor size, the cameras come with a M42 mount.

								GigE	USB3
[MP]	Sensor	Camera Model	Resolution [Pixel]	Format	Pixel Size [µm]	Shutter	Mount	max. Frame Rate [fps]	
19.6	Sony IMX367	exo367	4,416 × 4,428	4/3	3.45	GS	M42	6.2	19
31.4	Sony IMX342	exo342	6,464 × 4,852	APS-C	3.45	GS	M42	3.8	12

EXO Tracer Series

// EXO Tracer

The Tracer's lens mount is a Micro Four Thirds (MFT) mount, covering all electric connections for lightning fast control of the lens zoom, focus and aperture. The optical lens specification of MFT allows for the best optical results. The MFT mount opens up a wide range of high-quality lenses for the Tracer. Control options for exposure time, focus, zoom, aperture and strobe lighting through a single GenICam interface. Combining this lens control with high performance sensors up to 20 MP of resolution and 72dB dynamic range, the Tracer can deliver cutting edge imaging technology.

Key facts

// Micro-Four-Thirds bayonet mount
// Fast user control of zoom, aperture and focus
// Lens settings controlled by GigE Vision interface, USB3 Vision and also GenICam
// Selectable AOI (Area Of Interest)
// SDK for Windows (32/64bit), Linux and macOS
// Frame buffer: 256 MB

								USB3	GigE
[MP]	Sensor	Model	Resolution [Pixel]	Format	Pixel Size [µm]	Shutter	Mount	max. Frame Rate [fps]	
12.3	Sony IMX 304	exo304 TR	4,096 × 3,000	1.1"	3.45 × 3.45	GS	MFT	–	10
16.8	Sony IMX 387	exo387 TR	5,456 × 3,076	4/3"	3.45 × 3.45	GS	MFT	22	7.4
19.6	Sony IMX 367	exo367 TR	4,416 × 4,428	4/3"	3.45 × 3.45	GS	MFT	19	6.2
20.2	Sony IMX 183	exo183 TR	5,496 × 3,672	1"	2.4 × 2.4	RS	MFT	–	6

FXO Series

An excellent, low-noise image with high dynamic range is complemented by a comprehensive feature set. The Sony Pregius S sensors used are characterized by high light sensitivity and excellent homogeneity. Signal voltages, temperature resistance, I/O control, integrated strobe controller and firmware features are designed for applications in demanding industrial automation.

// FXO CXP-12

The FXO CXP-12 stands for outstanding image quality. The fast CoaXPress-12 interface gives the camera outstanding properties in terms of trigger latency and constant data rate.

// FXO 10GiGE

The fast 10GigE interface is an extremely economical interface and at the same time offers excellent conditions for use in larger networks. The large frame buffer and excellent packet resend ensure stable top transmission rates. Up to 100 m cable length is supported by the FXO's modern network technology.

// FXO 25GigE / 100GigE

With the 25GigE and 100GigE version of the successful FXO series, SVS-Vistek now offers a powerful tool in this sector. By using SFP28 / QSFP28 optical transceivers, data transmissions over distances of up to 10,000 meters are possible, making it particularly suitable for extensive industrial sites. It integrates seamlessly into existing network structures, enabling companies to adapt the technology without massive hardware overhauls, resulting in cost efficiency. The FXO 25GigE / 100GigE also impresses with reliability and a robust, thermally highly optimized milled housing, which is essential for an uninterrupted and stable data flow.

Key facts

// State-of-the-art interfaces 10GigE, 25GigE, 100GigE and CoaXPress-12 with PoE or PoCXP
// Various binning modes with performance boost
// Area of Interest (AOI/ROI)
// Logical trigger functions (PLC)
// Power output (4-channel strobe controller) with 3A max
// Electric and optical inputs TTL-24V Programmable timers and sequencers with logic modules
// SDK for Windows (32/64bit), Linux and macOS

								CXP-12	10GigE	25GigE / 100 GigE*
[MP]	Sensor	Camera Model	Resolution [Pixel]	Format	Pixel Size [µm]	Shutter	Mount	max. Frame Rate [fps]		
1.8	Sony IMX425	fxo425	1,600 × 1,104	17.6 mm	9 × 9	GS	C	662*	–	671
2.8	Sony IMX421	fxo421	1,936 × 1,472	11 mm	4.5 × 4.5	GS	C	413.5*	–	–
5	Sony IMX537	fxo537	2,448 × 2,048	8.8	2.74 × 2.74	GS	C	262*	–	262
5	Sony IMX547	fxo547	2,448 × 2,048	1/1.8	2.74 × 2.74	GS	C	124.3	124	–
7.1	Sony IMX420	fxo420	3,216 × 2,208	17.6 mm	4.5 × 4.5	GS	C	207*	–	–
8	Sony IMX546	fxo546	2,840 × 2,840	11.1 mm	2.74 × 2.74	GS	C	88	88	–
8.1	Sony IMX536	fxo536	2,848 × 2,848	11.1	2.74 × 2.74	GS	C	195*	–	195
12.3	Sony IMX535	fxo535	4,096 × 3,008	14	2.74 × 2.74	GS	C	182.5*	–	182.5
12.3	Sony IMX545	fxo545	4,096 × 3,000	1/1.1	2.74 × 2.74	GS	C	61	61	–
12.3	SonyIMX926	fxo926	4,096 × 3,000	1/1.1	2.74 × 2.74	GS	C	-	-	661* PREL
12.4	Sony IMX902	fxo902	6,048 × 2,048	17.5 mm	2.74 × 2.74	GS	C	135.4*	98.1	–
16.1	Sony IMX542	fxo542	5,320 × 3,032	16.8 mm	2.74 × 2.74	GS	C	45.6	45.6	–
16.2	Sony IMX532	fxo532	5,328 × 3,040	16.8 mm	2.74 × 2.74	GS	C	144*	–	144
16.4	Sony IMX901	fxo901	8,016 × 2,048	22.7mm	2.74 × 2.74	GS	C	135.4*	73.6	– NEW
20.2	Sony IMX541	fxo541	4,480 × 4,504	17.5 mm	2.74 × 2.74	GS	C	33.1	35.7	–
20.4	Sony IMX531	fxo531	4,512 × 4,512	17.5 mm	2.74 × 2.74	GS	C	109.5*	–	109.5
24.4	Sony IMX540	fxo540	5,312 × 4,600	19.3 mm	2.74 × 2.74	GS	C	30.4	30.4	–
24.5	Sony IMX925	fxo925	53,12 x 4,608 px	19.27 mm	2.74 × 2.74	GS	C	-	-	442* PREL
24.6	Sony IMX530	fxo530	5,328 × 4,608	19.3 mm	2.74 × 2.74	GS	C	97.6*	–	97.6

* CoaXPress12 with 2 connections Camera available in Camera + Grabber Bundle

HR Series

Highest resolutions at high frame rates for industrial cameras is the core area of the HR series. The HR series impresses with a wide range of features:

// HR CXP-12

This Camera was developed to cope with the increasing bandwidths of new sensor generations. Up to 6.25 GBit/s or 12.5 GBit/s can be transmitted per line. It supplies CXP cameras with up to CXP-6 or CXP-12 lines and thus provides a data bandwidth of 25 GBit/s or 50 GBit/s. It is equipped with modern and high-resolution CMOS sensors.

// HR 10GiGE

The 10GigE interface is the easiest way to transmit uncompressed data at higher speeds than standard GigE on a reliable and flexible infrastructure. The HR with 10GigE utilizes the maximum interface bandwidth with its high-resolution CMOS sensors.

// HR TEC

Now also available as a "-T" option: The combination of thermoelectric cooling (TEC) and heating with advanced, dust-proof ventilation ensures a stable sensor temperature and therefore greater reliability and consistent image quality.

// HR Camera Link

Camera Link offers high data rates, deterministic time response and very direct access to the image sensor. This enables settings and operating modes that are not available with other interfaces, even for industrial cameras with the highest resolutions.

Key facts

// Burst Mode (GigE/10GigE)
// 14-bit AD converter with 8 or 12-bit transmission
// Shading correction, defect pixel correction
// ROI, LUT, Binning, Gamma, Offset
// Integrated multi-channel LED strobe controller
// Industrial TTL-24V I/O Interface with SafeTrigger, programmable logic functions, sequencers, and timers, RS232
// SDK for Windows (32/64bit), Linux and macOS
// -T versions only: particularly stable image quality thanks to TEC

								10GigE	CL	XP-6	CXP-12
[MP]	Sensor	Model	Resolution [pixel]	Format	Pixel Size [µm]	Shutter	Mount	max. Frame Rate [fps]			
16.7	Sony IMX387	hr387	5,456 × 3,076	21.7 mm	3.45	GS	M58/F	56.4	–	–	–
25	ON Semi Python25K	hr25	5,120 × 5,120	32.5 mm	4.5	GS	M58/F	–	31.8	81	–
31.4	Sony IMX342	hr342	6,464 × 4,852	27.9 mm	3.45	GS	M58/F	35.4	–		–
49	GMAX3265-49	hr49	7,008 × 7,000	37.4 mm	3.2	GS	M58/F	–	17	30	71
51	GMAX4651	hr51	8,424 × 6,032	35 mm	4.6	GS	M58/F	23.7	–		–
61	Sony IMX455	hr455	9,568 × 6,380	43.24 mm	3.76	RS	M58/F	18	–	18	–
61	Sony IMX455	hr455-T	9,568 × 6,380	43.24 mm	3.76	RS	M58/F	18	–	–	–
65	GMAX3265	hr65	9,344 × 7,000	37.4 mm	3.2	GS	M58/F	17.4	13	35.5	71

PoE+ versions on request; all 10GigE cameras with PTP mode, -T: with built-in thermoelectric cooler (TEC) Camera available in Camera+Grabber Bundle

SHR Series

Highest resolution with large pixels and large sensor format: The SHR shines with up to 245 MP resolution when the task at hand requires uncompromising image quality.

// SHR CXP-12

The SHR offers low-noise CMOS sensors with the highest resolution and large pixels in medium format. The high-quality harmonization of the pixels guarantees an impeccable image. Highest structural precision in sensor adjustment in a solid, thermally highly optimized housing make the SHR with its lens shading correction the ideal partner for the most demanding optical tasks. The industrial I/O interface facilitates integration.

// SHR 10GigE

The SHR series offers image quality at the highest level with the highest resolutions. This is made possible by the special physical features offered by large pixels in large-format sensors. Added to this is the highest structural precision in sensor adjustment in a solid, thermally highly optimized housing. The large M72 lens mount with a flange distance of 19.55 mm can be adapted to any lens. The economical and high-performance 10GigE interface offers up to 1.25 GB/s data transfer for these large images. A special frame grabber is not required.

// SHR 10GigE TEC

Now also available as a "-T" option: The combination of thermoelectric cooling (TEC) and heating with advanced, dust-proof ventilation ensures a stable sensor temperature and therefore greater reliability and consistent image quality.

Key facts

// High resolution with large pixels up to 245 megapixels and an optimized image rate
// Rolling or Global shutter CMOS sensors from Sony
// 512 MB internal image memory
// Custom defect pixel correction
// User definable lens shading correction
// Comprehensive feature set including sequencer and multi-ROI
// Integrated multi channel LED strobe controller
// Industrial TTL-24V I/O interface with SafeTrigger, programmable logic functions, sequencers and timers, RS232
// Numerous M72 lens adaptors for virtually any industrial lens
// SDK for Windows (32/64bit), Linux and macOS

								10GigE	CXP-6	CXP-12
[MP]	Sensor	Camera Model	Resolution [Pixel]	Format	Pixel Size [µm]	Shutter	Mount	max. Frame Rate [fps]		
101.8	Sony IMX461	shr461	11,648 × 8,742	55 mm	3.76 × 3.76	RS	M72	8.7	8.7	–
127.6	Sony IMX661	shr661	13,392 × 9,528	56.73 mm	3.45 × 3.45	GS	M72	8.2	–	20.3
151	Sony IMX411	shr411	14,192 × 10,640	66.7 mm	3.76 × 3.76	RS	M72	6.1	6.1	–
151	Sony IMX411	shr411-T	14,192 × 10,640	66.7 mm	3.76 × 3.76	RS	M72	6.1	–	– NEW
245	Sony IMX811	shr811	19,200 × 12,800	64.84 mm	2.81 × 2.81	GS	M72	–	–	12.4 NEW

all 10GigE cameras with PTP mode; PoE versions on request, -T: with built-in thermoelectric cooler (TEC) Camera available in Camera + Grabber Bundle

EoSens Series

// EoSens

EoSens High-Speed cameras are used in industrial image processing wherever processes need to be examined within a few milliseconds. With frame rates of up to 225.000 fps, the most precise analyses of processes and objects are possible. If the focus is on high resolutions, recording speeds of several 100 frames per second are still possible.

// EoSens Creation

This is a user-programmable high-speed camera with an open platform concept. It enables user to process image data in real time at up to 40 Gbps directly in the camera.

[MP]	Model	Resolution [Pixel]	Format	Sensor	Pixel Size [µm]	Shutter	Mount	max. Frame Rate [fps]		
1.1	EoSens 1.1*	1,280 × 864	4/3"	Lux13HS	13.7 × 13.7	GS	C / F	–	–	3,674
2	EoSens 2.0*	1,920 × 1,080	4/3"	Lux19HS	10 × 10	GS	C / F	–	–	2,247
4	EoSens 4.0	2,336 × 1,728	4/3"	AM41	7 × 7	GS	C / F	–	563	–
9.5	EoSens 9.5	4,096 × 2,304	2"	LUX9512	6.5 × 6.5	GS	M58 / Flat Front	–	–	503 NEW
10	EoSens 10	4,608 × 2,176	4/3"	Gsprint4510	4.5 × 4.5	GS	M42 / F	–	–	463 NEW
21	EoSens 21	5,120 × 4,096	29.5mm	Gsprint4521	4.5 × 4.5	GS	F / Flat Front	–	–	230 NEW

*available as „Creation": programmable camera

High Speed Recording

// SMR, Quad, Mini, Cube

The monitoring and examination of industrial processes with High-Speed cameras is an important tool for the efficient analysis of faulty production steps. MotionBLITZ® Recording Cameras store the image data directly in the camera without a host PC. This allows High-Speed recordings without complicated test setup.

The extremely compact High-Speed cameras reliably deliver meaningful images even under difficult lighting conditions, varying temperatures, vibrations and strong shocks.

								2 GB	4 GB	8 GB	16 GB	64 GB
[MP]	Model	Resolution [Pixel]	Format	Sensor	Pixel Size [µm]	Shutter	Mount	max. Recording Time [s]				
1.1	Quad 1.1	1,280 × 864	4/3"	Lux13HS	13.7 × 13.7	GS	C / FG	–	–	2.48	4.96	–
1.3	Cube 2	1,280 × 1,024	1"	MV-13	12 × 12	GS	C	–	6.53	–	–	–
1.3	Cube 4	1,280 × 1,024	1"	MV-13HS	12 × 12	GS	C / FG	–	3.24	6.48	–	–
1.3	Cube6	1,280 × 1,024	4/3"	LUPA1300-2	14 × 14	GS	C / FG	–	–	12.95	–	–
1.3	Mini 1	1,280 × 1,024	4/3"	LUPA1300-2	14 × 14	GS	C / FG	3.24	6.48	–	–	–
2	SMR2.0	1,920 × 1,080	4/3"	Lux19HS	10 × 10	GS	C / FG	–	–	–	–	8.7 NEW
3	Mini 2	1,696 × 1,710	4/3"	LUPA3000	8 × 8	GS	C / FG	1.41	2.82	–	–	–

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