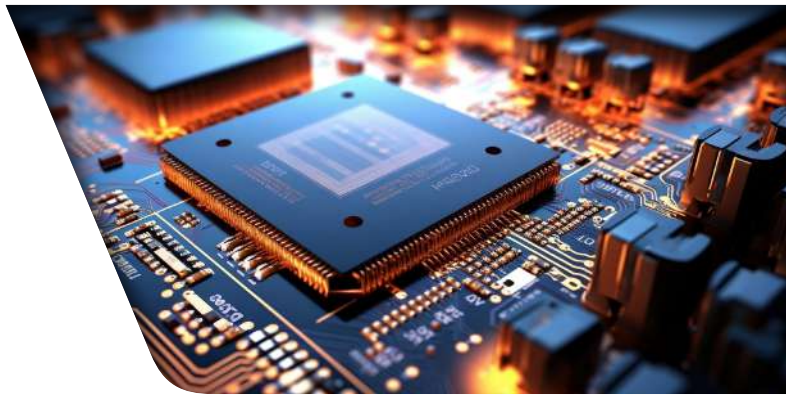
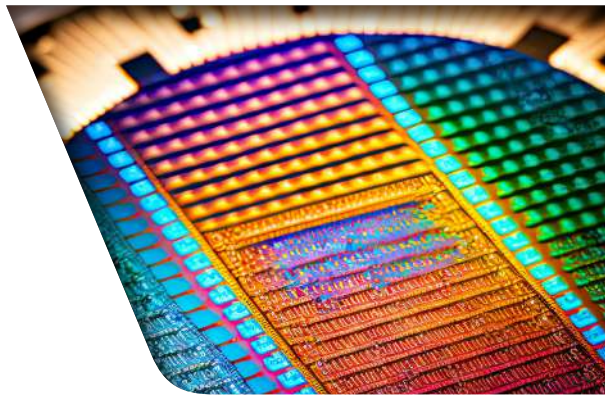
Allied Vision

Precision. Delivered.







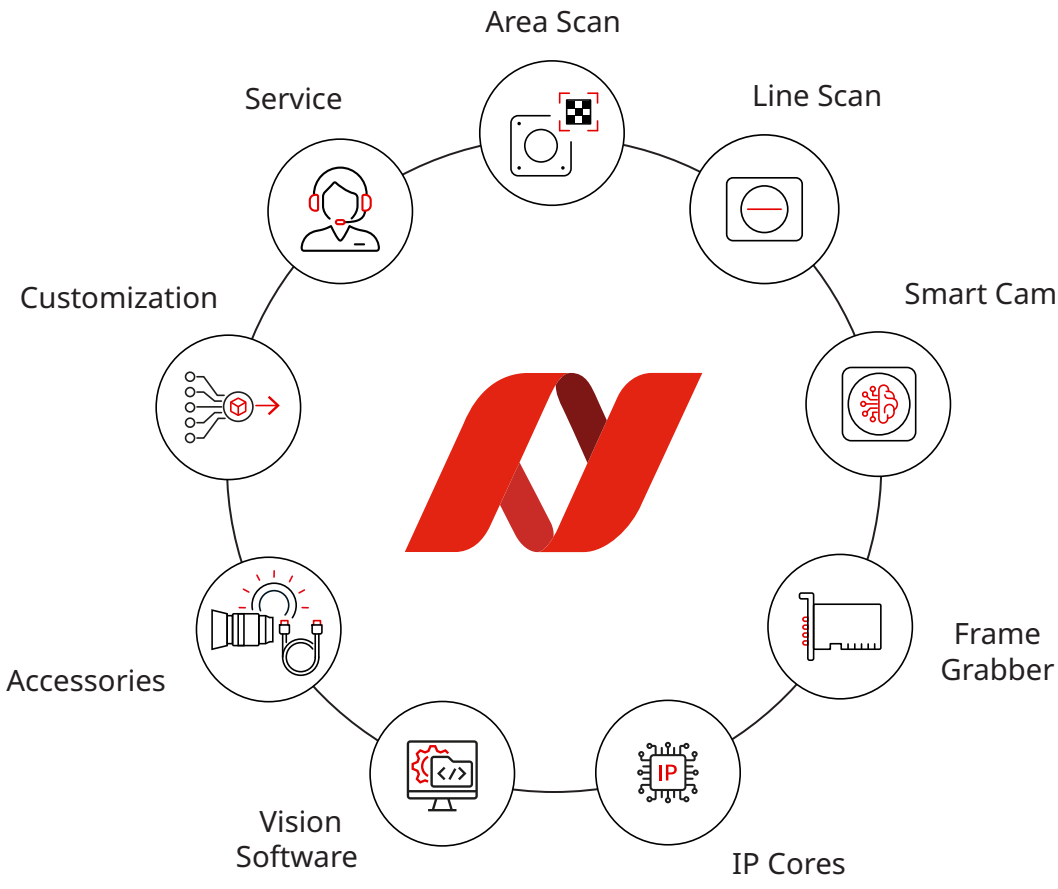


// ALLIED VISION PORTFOLIO

Area Scan Technologies

// MORE THAN JUST CAMERAS

One Partner. One Ecosystem



At Allied Vision, we bring together a broad range of machine vision technologies in one integrated ecosystem – cameras, frame grabbers, IP cores, software, lenses, lighting, accessories, and customization. Our technologies are designed to work together, helping you simplify sourcing, reduce integration effort, and build reliable vision systems faster. With expertise and support across the application, you benefit from compatible technologies and one trusted partner.

With Allied Vision, you get the technologies you need for your machine vision system – from one source and designed to work together.
One Partner. One Ecosystem. Designed to work together.

Bundled for your Application

Combine compatible Allied Vision technologies to meet your application requirements. From cameras and frame grabbers to lenses, lighting, and software – all from one trusted partner.

Our Machine Vision Ecosystem

Area Scan & Line Scan Cameras

Our broad portfolio of area scan and line scan cameras covers a wide range of demanding machine vision applications. From continuous inspection of moving materials to specialized UV, SWIR and polarization imaging, our cameras reveal critical details across and beyond the visible spectrum. Designed for high image quality, industrial reliability and easy integration, they provide the right imaging technology for a wide range of applications.

Smart Cameras

Our open smart cameras combine high-quality image acquisition with powerful onboard processing in one industrial device. Designed for maximum flexibility, they enable you to develop your own algorithms, integrate third-party software, and adapt the system to your application.

IP Cores

Our IP cores help reduce development effort when building your own vision components. Supporting GigE Vision, USB3 Vision and CoaXPress transport layers as well as SubLVDS and MIPI-CSI2 sensor interfaces, our IP cores combine high-performance with a compact design. Designed to reduce development time and increase design quality, they provide proven technology even for complex applications.

Frame Grabbers

Our high-performance CoaXPress and Camera Link frame grabbers enable high-speed image acquisition and reliable data transfer for data-intensive imaging tasks. With CoaXPress-over-Fiber, high-speed data transmission can be extended over fiber-optic cables and longer distances.

Software

Our eVision software provides powerful image processing and analysis capabilities for inspection and identification applications. Our eVision portfolio includes tools for testing, evaluation, prototyping, and development, with functional libraries available individually or in combined bundles. Designed for flexible integration, eVision helps reduce development effort and efficiently turn image data into actionable results.

Lenses, Lighting & Accessories

A carefully selected portfolio of lenses, lighting and accessories complements our cameras and helps ensure reliable imaging performance. Our components are chosen and tested for compatibility, image quality and industrial performance. Designed to work with our camera portfolio, they help simplify integration, ensure consistent imaging results and reduce engineering effort.

Customization

Our customization capabilities help adapt machine vision technology to your specific application and integration requirements. From development and volume production to support, repair and redesign, we support you throughout the entire product lifecycle. Our engineering expertise helps ensure seamless integration into new or existing production systems while reducing development effort and complexity.

// 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	G/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	–	✓(2)	✓(2)	✓(2)	✓	✓	✓	–	–	–	–	–	–	–	–	–	–	–	–	✓(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. 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 GigE, 10GigE as well as USB and CXP cameras. It also provides easy connectivity to 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).

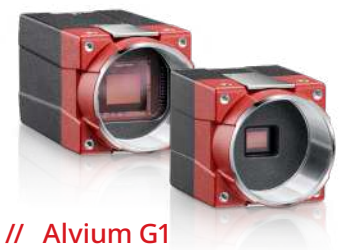
Vimba X provides lean yet high-performance APIs optimized for USB, GigE, CoaXPress, and CSI-2 cameras. Vimba X includes dedicated tools for defect pixel management, camera calibration, bandwidth management, and a camera simulator.

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

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. Additionally, 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 the highest bandwidths of up to 450MB/s in an unmatched form factor of 26 × 26 mm in the Board-level 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 GenICam for CSI-2 to ensure compatibility with standard machine vision SDKs and software.

// Alvium FP3 and GM2

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 and GMSL2™ cameras in the market. The CSI-2 based closed housing cameras come with an integrated serializer and two rugged interface connectors to choose from.

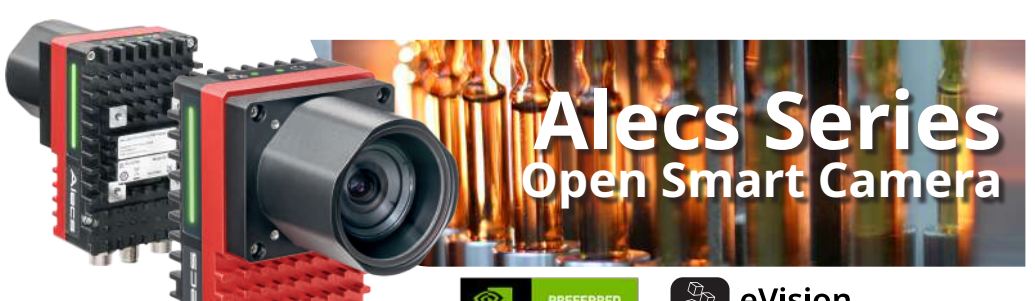
Key facts

// Long-term availability
// Easy migration between different Alvium series
// Fast prototype development and time-to-market
// Easy system integration
// Same form factor (H × W: 29 mm × 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	298	–	–	040	494	040	494	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 × 624	1/1.7	GS	• / • / - / -	9 × 9	–	–	052	688	052	688	052	689	052	*
1.2	ON Semi AR0135CS CMOS	1,280 × 960	1/3	GS	• / • / - / -	3.75 × 3.75	–	–	–	–	120	52	120	52	120	*
1.3	E2V EV76C560 CMOS	1,280 × 1,024	1/1.8	GS	• / • / - / -	5.3 × 5.3	131	60	–	–	131	60	–	–	–	–
1.6	Sony IMX273 CMOS	1,456 × 1,088	1/2.9	GS	• / • / - / -	3.45 × 3.45	158	74	–	–	158	257	158	262	–	*
1.9	E2V EV76C570 CMOS	1,600 × 1,200	1/1.8	GS	• / • / - / -	4.5 × 4.5	192	59	–	–	192	59	–	–	–	–
2.0	Sony IMX422 CMOS	1,632 × 1,248	1/1.7	GS	• / • / - / -	4.5 × 4.5	–	–	203	225	203	200	203	225	–	–
2.1	ON Semi AR0521SRHD CMOS	1,928 × 1,088	1/3.6	RS	• / • / - / -	2.2 × 2.2	–	–	–	–	–	–	210	119	210	*
2.4	Sony IMX249 CMOS	1,936 × 1,216	1/1.2	GS	• / • / - / -	5.86 × 5.86	234	40	–	–	234	40	234	40	234	*
2.4	Sony IMX174 CMOS	1,936 × 1,216	1/1.2	GS	• / • / - / -	5.86 × 5.86	–	–	–	–	235	155	235	155	235	*
2.4	Sony IMX392 CMOS	1,936 × 1,216	1/2.3	GS	• / • / - / -	3.45 × 3.45	240	50	240	191	240	176	240	192	240	*
2.9	Sony IMX421 CMOS	1,944 × 1,472	2/3	GS	• / • / - / -	4.5 × 4.5	–	–	291	166	291	144	291	166	291	*
3.2	Sony IMX265 CMOS	2,064 × 1,544	1/1.8	GS	• / • / - / -	3.45 × 3.45	319	37	–	–	319	54	319	54	319	*
3.2	Sony IMX900 CMOS	2,064 × 1,552	1/3.1	GS	• / • / - / -	2.25 × 2.25	321	33	321	111	321	111	321	111	321	*
5.0	ON Semi AR0521SR CMOS	2,592 × 1,944	1/2.5	RS	• / • / - / -	2.2 × 2.2	500	23	500	68	500	68	500	68	500	*
5.0	ON Semi AR0522 CMOS	2,592 × 1,944	1/2.5	RS	• / • / - / -	2.2 × 2.2	–	–	–	–	501	68	501	68	501	*
5.1	Sony IMX264 CMOS	2,464 × 2,056	2/3	GS	• / • / - / -	3.45 × 3.45	507	23	–	–	507	34	507	34	507	*
5.1	Sony IMX250 CMOS	2,464 × 2,056	2/3	GS	• / • / - / -	3.45 × 3.45	–	–	508	95	508	84	508	95	508	*
5.1	Sony IMX548 CMOS	2,464 × 2,064	1/1.8	GS	• / • / - / -	2.74 × 2.74	510	23	510	81	510	79	510	81	510	*
5.1	Sony IMX547 CMOS	2,464 × 2,064	1/1.8	GS	• / • / - / -	2.74 × 2.74	–	–	511	79	511	79	511	79	511	*
8.1	Sony IMX546 CMOS	2,848 × 2,848	2/3	GS	• / • / - / -	2.74 × 2.74	811	14	811	58	811	51	811	59	811	*
8.9	Sony IMX267 CMOS	4,112 × 2,176	1	GS	• / • / - / -	3.45 × 3.45	895	13	–	–	895	31	895	31	895	*
12.4	Sony IMX304 CMOS	4,112 × 3,008	1.1	GS	• / • / - / -	3.45 × 3.45	1236	9	–	–	1236	23	1236	22	1236	*
12.2	Sony IMX226 CMOS	4,024 × 3,036	1/1.7	RS, GS-Reset	• / • / - / -	1.85 × 1.85	1240	9	1240	42	1240	35	1240	41	1240	*
12.4	Sony IMX545 CMOS	4,128 × 3,008	1/1.1	GS	• / • / - / -	2.74 × 2.74	1242	9	1242	41	1242	33	1242	40	1242	*
16.2	Sony IMX542 CMOS	5,328 × 3,040	1.1	GS	• / • / - / -	2.74 × 2.74	1620	7	1620	32	1620	26	1620	32	1620	*
20.4	Sony IMX541 CMOS	4,512 × 4,512	1.1	GS	• / • / - / -	2.74 × 2.74	2040	5	2040	25	2040	21	2040	25	2040	*
20.2	Sony IMX183 CMOS	5,496 × 3,672	1	RS	• / • / - / -	2.4 × 2.4	2050	5	2050	26	2050	21	2050	26	2050	*
24.6	Sony IMX540 CMOS	5,328 × 4,608	1.2	GS	• / • / - / -	2.74 × 2.74	2460	4	2460	21	2460	17	2460	21	2460	*

*** 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)



NVIDIA® Jetson Orin™ inside

eVision
Image Analysis Software Tools

// Alecs

Alecs combines the feature-rich Alvium camera platform with the powerful NVIDIA® Jetson Orin™ NX 16GB or Nano 8GB 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 eVision Image analysis libraries 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

// Powerful Alvium Camera inside with large feature set and wide choice of sensors
// Power Modes up to 25 W usable due to heat dissipation design
// NVIDIA® Jetson™ Orin NX 16GB/Nano 8GB
// Industrial housing: IP67 ingress protection, vibration and shock robustness (IEC 60068-2)
// Wide operating temperature range: from -20°C to +65°C (housing)

[MP]	Sensor	Model	NVIDIA Jetson SoM	Resolution [Pixel]	Format	Shutter	Pixel Size [µm]	Mono / color / mono NIR / color NIR	fps	
5.1	Sony IMX548 CMOS	Alecs G1-510 NX16	NVIDIA Jetson Orin NX 16GB	2,464 × 2,064	Type 1/1.8	GS	2.74 × 2.74	• / • / - / -	81	NEW
5.1	Sony IMX548 CMOS	Alecs G1-510 NA8	NVIDIA Jetson Orin Nano 8GB	2,464 × 2,064	Type 1/1.8	GS	2.74 × 2.74	• / • / - / -	81	NEW
12.4	Sony IMX545 CMOS	Alecs G1-1242 NX16	NVIDIA Jetson Orin NX 16GB	4,128 × 3,008	Type 1/1.1	GS	2.74 × 2.74	• / • / - / -	40	NEW
12.4	Sony IMX545 CMOS	Alecs G1-1242 NA8	NVIDIA Jetson Orin Nano 8GB	4,128 × 3,008	Type 1/1.1	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 for 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 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	1/1.8"	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	–	–
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	10	–	30 NEW
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

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 72 dB 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 (32/64-bit), 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 IMX304	exo304 TR	4,096 × 3,000	1.1"	3.45 × 3.45	GS	MFT	–	10
16.8	Sony IMX387	exo387 TR	5,456 × 3,076	4/3"	3.45 × 3.45	GS	MFT	22	7.4
19.6	Sony IMX367	exo367 TR	4,416 × 4,428	4/3"	3.45 × 3.45	GS	MFT	19	6.2
20.2	Sony IMX183	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 stability, 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

This enables data transmissions over distances of up to 10,000 meters, 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 cameras also impress 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 (32/64-bit), Linux and macOS



CXP-12 | 10GigE | 25GigE +RDMA | 100GigE +RDMA

								CXP-12	10GigE	25GigE / 100GigE
[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	671*	–	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/RF	262*	242.2***	262 NEW
5	Sony IMX547	fxo547	2,448 × 2,048	1/1.8	2.74 × 2.74	GS	C/RF	124	124	–
7.1	Sony IMX420	fxo420	3,216 × 2,208	17.6 mm	4.5 × 4.5	GS	C	207*	–	–
8.1	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/RF	195*	149.8***	195 NEW
12.3	Sony IMX535	fxo535	4,096 × 3,008	14	2.74 × 2.74	GS	C/RF	182.5*	98.7***	182.5 NEW
12.3	Sony IMX545	fxo545	4,096 × 3,000	1/1.1	2.74 × 2.74	GS	C	61	61	–
12.3	Sony IMX926	fxo926	4,096 × 3,000	1/1.1	2.74 × 2.74	GS	C/RF	–	–	660.8 NEW
12.4	Sony IMX936	fxo936	4,128 × 3,008	14 mm	2.74 × 2.74	GS	C	339.6**	–	– NEW
12.4	Sony IMX902	fxo902	6,048 × 2,048	17.5 mm	2.74 × 2.74	GS	C/M42	135.4*	98.1	– NEW
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/RF	144*	75 ***	144 NEW
16.4	Sony IMX901	fxo901	8,016 × 2,048	22.7mm	2.74 × 2.74	GS	C/M42	135.4*	73.6	– NEW
20.3	Sony IMX541	fxo541	4,480 × 4,504	17.5 mm	2.74 × 2.74	GS	C	35.7	35.7	– NEW
20.4	Sony IMX531	fxo531	4,512 × 4,512	17.5 mm	2.74 × 2.74	GS	C/RF	110*	58.8 ***	110 NEW
24.5	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	5,312 × 4,608	19.27 mm	2.74 × 2.74	GS	C/RF	–	–	442.7 NEW
24.6	Sony IMX530	fxo530	5,328 × 4,608	19.3 mm	2.74 × 2.74	GS	C/RF	97.6*	49.6 ***	96 NEW
24.6	Sony IMX935	fxo935	5,328 × 4,608	19.3 mm	2.74 × 2.74	GS	C	192**	–	– NEW

* CoaXPress12 with 2 connections, ** CoaXPress12 with 4 connections, *** available as +RDMA



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 series 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 four 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, fast and high-resolution CMOS sensors.

// HR 10GigE and 100GigE

The 10- and 100GigE Vision interfaces are the easiest way to transmit uncompressed data at higher speeds than standard GigE on a reliable and flexible infrastructure. The HR with 100GigE utilizes the maximum interface bandwidth with its high-resolution CMOS sensors.

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

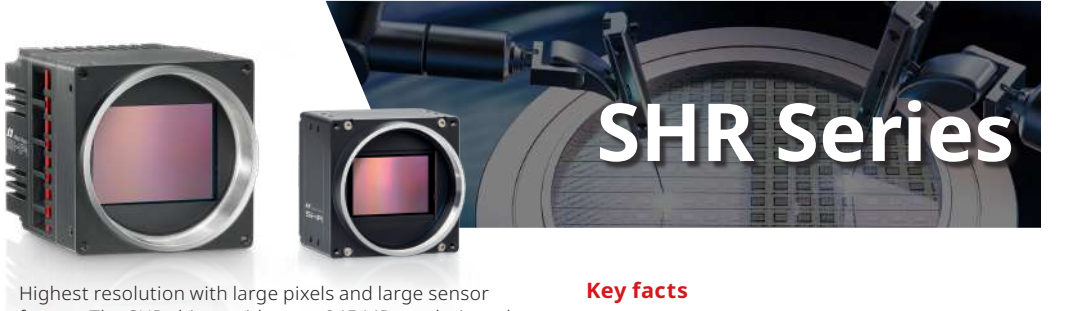
Camera Link offers high data rates, deterministic time response and very direct access to the image sensor. This enables settings and operating modes that are not available with other interfaces, even for industrial cameras with the highest resolutions.

Key facts

// Burst Mode (GigE / 10GigE / 100GigE)
// 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	100GigE	CL	CXP-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 Python 25K	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	–	–	35.7	–
49	GMAX3265-49	hr49	7,008 × 7,000	31.7 mm	3.2	GS	M58/F	–	–	17	–	71
50.4	Sony IMX929	hr929	8,200 × 6,152	28.09 mm	2.74	GS	M58/FF/RF	–	225	–	–	– PREL
51	GMAX4651	hr51	8,424 × 6,032	35 mm	4.6	GS	M58/F	23.7	–	–	30	–
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/RF	17.4	–	13	35.5	71
68.2	Sony IMX928	hr928	8,256 × 8,256	31.99mm	2.74	GS	M58/FF/RF	–	138.0	–	–	– PREL
104.9	Sony IMX927	hr927	10,240 × 10,240	39.68 mm	2.74	GS	M58/FF/RF	–	111.8	–	–	– PREL

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



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 (32/64-bit), 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	6.2	–
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)



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, taking pictures with a speed of several 1000 frames per second are still possible.

CXP-12

[MP]	Sensor	Model	Resolution [Pixel]	Format	Pixel Size [µm]	Shutter	Mount	max. Frame Rate [fps]
1.1	Lux13HS	EoSens 1.1	1,280 × 864	4/3"	13.7 × 13.7	GS	C / F	3,674
2	Lux19HS	EoSens 2.0	1,920 × 1,080	4/3"	10 × 10	GS	C / F	2,247
9.5	LUX9512	EoSens 9.5	4,096 × 2,304	2"	6.5 × 6.5	GS	M58 / Flat Front	503 NEW
10	Gsprint 4510	EoSens 10	4,608 × 2,176	4/3"	4.5 × 4.5	GS	M42 / F	482 NEW
21	Gsprint 4521	EoSens 21	5,120 × 4,096	29.5mm	4.5 × 4.5	GS	F / Flat Front	230 NEW



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	32 GB
[MP]	Sensor	Model	Resolution [Pixel]	Format	Pixel Size [µm]	Shutter	Mount	max. Frame Rate (fps)	max. Recording Time [s]				
1.1	Lux13HS	Quad 1.1	1,280 × 864	4/3"	13.7 × 13.7	GS	C / FG	2,500	–	–	2.48	4.96	–
1.3	MV-13	Cube 2	1,280 × 1,024	1"	12 × 12	GS	C	502	–	6.53	–	–	–
1.3	MV-13HS	Cube 4	1,280 × 1,024	1"	12 × 12	GS	C / FG		–	–	6.48	–	–
1.3	LUPA1300-2	Cube 6	1,280 × 1,024	4/3"	14 × 14	GS	C / FG	506	–	–	12.95	–	–
1.3	LUPA1300-2	Mini 1	1,280 × 1,024	4/3"	14 × 14	GS	C / FG	506	3.24	6.48	–	–	–
2	Lux19HS	SMR 2.0	1,920 × 1,080	4/3"	10 × 10	GS	C / FG	2,517	–	–	–	–	4.35 NEW
3	LUPA3000	Mini 2	1,696 × 1,710	4/3"	8 × 8	GS	C / FG	525	1.41	2.82	–	–	–

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Allied Vision

Precision. Delivered.

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