



// ALLIED VISION CAMERA LINE-UP

High-performance cameras
for computer vision

Features comparison

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

	Alvium C/FP3/GM2 GenICam for CSI-2	Alvium U	Alvium G1	Alvium G5	Goldeye		Goldeye Pro
Image optimization features					G1/G5	CL	G5
Defect pixel correction	✓	✓	✓	✓	✓	✓	✓
Fixed Pattern Noise Correction (FPNC) / NUC	✓	✓ ⁽¹⁾	✓ ⁽¹⁾	✓ ⁽¹⁾	✓	✓	✓
Region of interest (ROI)	✓	✓ ⁽²⁾	✓ ⁽²⁾	✓ ⁽²⁾	✓	✓	✓
Binning	✓	✓	✓	✓	✓	✓	✓
5x5 Convolution Filter	✓	✓	✓	✓	-	-	-
Auto gain	✓	✓	✓	✓	-	-	-
Auto exposure	✓	✓	✓	✓	✓	✓	✓
Auto white balance	✓	✓	✓	✓	-	-	-
Lens shading correction	✓	✓	✓	✓	-	-	-
Look-up tables (LUT)	✓	✓	✓	✓	✓	✓	✓
Gamma correction	✓	✓	✓	✓	-	-	-
Hue, saturation, color correction	✓	✓	✓	✓	-	-	-
Reverse X/Y	✓	✓	✓	✓	-	-	-
Camera control features							
Bandwidth control	-	✓	✓	✓	✓	-	✓
Stream hold	-	-	-	-	✓	-	-
Flow Control	-	-	✓	✓	-	-	✓
Chunk data	-	✓	✓	✓	✓	-	✓
Sync out modes	✓	✓	✓	✓	✓	✓	✓
Trigger modes:	single	✓	✓	✓	✓	✓	✓
	bulk	-	-	-	-	✓	✓
	level	✓	✓	✓	✓	✓	✓
Trigger Counters:	✓	✓	✓	✓	-	-	✓
Trigger Timers:	✓	✓	✓	✓	-	-	✓
Serial Communication	✓	✓	✓	✓	✓	✓	✓
Event channel	-	✓	✓	✓	✓	✓	✓
IEEE 1588 Precision Time Protocol (PTP)	-	-	✓	✓	-	-	-
Action commands	-	-	✓	✓	-	-	-
Sequencer ⁽¹⁾	-	✓	✓	✓	-	-	-
Storable user sets	✓	✓	✓	✓	✓	✓	✓
Temperature monitoring	✓	✓	✓	✓	✓	✓	✓
Auto-Iris:	Video-Iris	-	-	-	-	-	-
	DC-Iris	-	-	-	-	-	-
	P-Iris	-	-	-	-	-	-

⁽¹⁾ Selected models only, please contact our sales team for details

⁽²⁾ Multiple ROIs (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.

Vimba

Vimba is our well established SDK for Allied Vision cameras. Just like Vimba X, it runs on Windows, Linux, and Linux ARM.

Vimba X and Vimba can be installed on the same system to enable an easy migration from Vimba to Vimba X. Most function calls are the same and the few differences are described in the developer guide on <https://docs.alliedvision.com>. Vimba X is mainly designed for the use with Alvium cameras. For all other Allied Vision camera series the use of Vimba 6 as the SDK of choice is still recommended.

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, NXP i.MX 8M Plus, AMD Xilinx ZYNQ
- // V4L2 Viewer
- // Examples for Alvium CSI-2 cameras (V4L2)
- // gst-vimbsrc and gst-vmbsrc, plugins to access Vimba and Vimba X from GStreamer pipelines ... and more

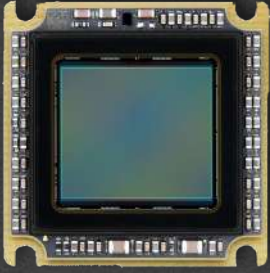


// FLEXIBLE DESIGN FOR MAXIMUM VERSATILITY

Alvium Modular Concept

With the Alvium platform, we have created a flexible and modular platform to ensure that your camera adapts to your requirements and not the other way around. Alvium cameras are available with 6 different interfaces for diverse requirements. Together with the large choice of high-quality image sensors, various lens mount and housing options, and a wide range of spectral sensitivities, the Alvium platform offers a broad variety of cameras to choose from.

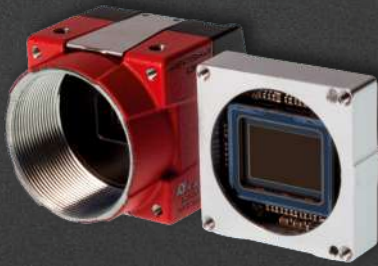
To meet individual needs and to enable the greatest possible flexibility, Allied Vision offers a wide range of additional modular options for Alvium cameras.



Removed Cover Glass (RCG) for cameras with Sony IMX sensors

Alvium cameras with Sony IMX, including VSWIR sensors, are available without sensor cover glass. Particularly for reflection-sensitive applications, the RCG option can help achieve the best possible imaging results. Image artefacts are eliminated.

- // No image artefacts caused by particles on the sensor cover glass
- // No disturbing reflections
- // Increase of overall quantum efficiency
- // Fiber optic arrays can directly be mounted to the sensor
- // Disturbing reflections or interferences caused by the sensor cover glass are avoided



Alvium Frame for USB3 and CSI-2 cameras

Vision applications sometimes require a very precise sensor alignment than the standard bare board camera allows. Alvium Frame cameras are actively aligned during production. The image sensor is perfectly aligned towards the small precision frame. There are two options of alignment:

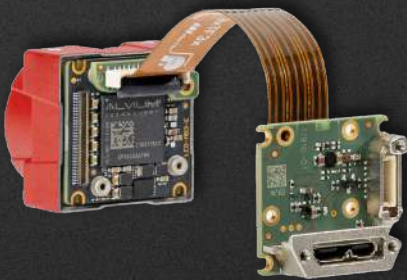
- // Precision milled areas on the bottom, side, and front of the frame
- // Precision milled front face, alignment pin, and oblong hole

Every available camera model / image sensor in the Alvium CSI-2 and USB3 series is available as an Alvium Frame camera.

Alvium Flex for USB3 and CSI-2 cameras

The Alvium Flex models enable the use of various connectors and cables by replacing the standard interface with a board-to-board connector for all signals.

- // Very compact footprint of 26 mm x 26 mm for bare board and 29 mm x 29 mm for housed cameras
- // Slim 8 mm bare board version
- // Support for more than 20 image sensors
- // Support for Sony SWIR and UV sensors
- // Board-to-board connector to enable individual connections
- // Various interface boards, add-on boards, and cables accessories available



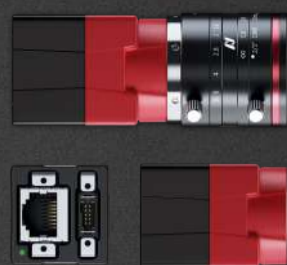
Active Lens Alignment for cameras with S-mount lenses

Deviations along the optical axis between lens and sensor affect image quality. Allied Vision offers Active Lens Alignment for its Alvium cameras. Each single S-Mount lens is aligned with the corresponding Alvium camera in an automated production process, resulting in:

- // Consistent high image quality and optimal optical alignment
- // Higher precision and shorter production times compared to manual alignment
- // No effects such as blurring, tilt, rotation, focus drift and excessive variances

// ALVIUM G1

The GigE Vision refresh



Key facts

- // Small feature-rich GigE camera with PoE
- // Future-proof design with latest technology for long-availability
- // Comprehensive feature set including sequencer and multi-ROI

Alvium G1



Camera model	Sensor	Mega-pixels	Resolution	Sensor format	Shutter mode	Max. frame rate in fps	Pixel size in µm	Mono/color/mono NIR/color NIR
G1-030	Sony IMX991 InGaAs	0.3	656 x 520	Type 1/4	Global	249	5 x 5	VSWIR
G1-040	Sony IMX287 CMOS	0.4	728 x 544	Type 1/2.9	Global	276	6.9 x 6.9	•/•/-/-
G1-130	Sony IMX990 InGaAs	1.3	1296 x 1032	Type 1/2	Global	86	5 x 5	VSWIR
G1-131	E2V EV76C560 CMOS	1.3	1280 x 1024	Type 1/1.8	Global	59	5.3 x 5.3	•/•/-/-
G1-158	Sony IMX273 CMOS	1.6	1456 x 1088	Type 1/2.9	Global	72	3.45 x 3.45	•/•/-/-
G1-192	E2V EV76C570 CMOS	1.9	1600 x 1200	Type 1/1.8	Global	59	4.5 x 4.5	•/•/-/-
G1-234	Sony IMX249 CMOS	2.4	1936 x 1216	Type 1/1.2	Global	40	5.86 x 5.86	•/•/-/-
G1-240	Sony IMX392 CMOS	2.4	1936 x 1216	Type 1/2.3	Global	49	3.45 x 3.45	•/•/-/-
G1-319	Sony IMX265 CMOS	3.2	2064 x 1544	Type 1/1.8	Global	36	3.45 x 3.45	•/•/-/-
G1-500	ON Semi AR0521SR CMOS	5.0	2592 x 1944	Type 1/2.5	Rolling	23	2.2 x 2.2	•/•/-/-
G1-507	Sony IMX264 CMOS	5.1	2464 x 2056	Type 2/3	Global	23	3.45 x 3.45	•/•/-/-
G1-507 Pol	Sony IMX264MZR/MYR CMOS	5.1	2464 x 2056	Type 2/3	Global	23	3.45 x 3.45	•/•/-/- Polarized
G1-510	Sony IMX548 CMOS	5.1	2464 x 2064	Type 1/1.8	Global	23	2.74 x 2.74	•/•/-/-
G1-811	Sony IMX546 CMOS	8.1	2848 x 2848	Type 2/3	Global	14	2.74 x 2.74	•/•/-/-
G1-812	Sony IMX487 CMOS	8.1	2848 x 2848	Type 2/3	Global	14	2.74 x 2.74	UV
G1-895	Sony IMX267 CMOS	8.9	4112 x 2176	Type 1	Global	13	3.45 x 3.45	•/•/-/-
G1-1236	Sony IMX304 CMOS	12.4	4112 x 3008	Type 1.1	Global	9	3.45 x 3.45	•/•/-/-
G1-1240	Sony IMX226 CMOS	12.2	4024 x 3036	Type 1/1.7	Rolling, Global Reset	9	1.85 x 1.85	•/•/-/-
G1-1242	Sony IMX545 CMOS	12.4	4128 x 3008	Type 1/1.1	Global	9	2.74 x 2.74	•/•/-/-
G1-1620	Sony IMX542 CMOS	16.2	5328 x 3040	Type 1.1	Global	7	2.74 x 2.74	•/•/-/-
G1-2040	Sony IMX541 CMOS	20.4	4512 x 4512	Type 1.1	Global	5	2.74 x 2.74	•/•/-/-
G1-2050	Sony IMX183 CMOS	20.2	5496 x 3672	Type 1	Rolling	5	2.4 x 2.4	•/•/-/-
G1-2460	Sony IMX540 CMOS	24.6	5328 x 4608	Type 1.2	Global	4	2.74 x 2.74	•/•/-/-

Hardware options	Mounts	Dimensions L x W x H in mm
Closed Housing	C / CS / S	41 x 29 x 29 (Closed Housing)

// ALVIUM G5

The easy upgrade for more performance



Key facts

- // Small sugar-cube 5GigE camera with PoE
- // Easy upgrade from GigE for more performance
- // Comprehensive feature set including sequencer and multi-ROI

Alvium G5



Camera model	Sensor	Mega-pixels	Resolution	Sensor format	Shutter mode	Max. frame rate in fps	Pixel size in µm	Mono/color/mono NIR/color NIR
G5-052	Sony IMX426 CMOS	0.5	816 x 624	Type 1/1.7	Global	464	9 x 9	•/•/-/-
G5-130	Sony IMX990 CMOS	1.3	1296 x 1032	Type 1/2	Global	130	5 x 5	VSWIR
G5-203	Sony IMX422 CMOS	2.0	1632 x 1248	Type 1/1.7	Global	225	4.5 x 4.5	•/•/-/-
G5-240	Sony IMX392 CMOS	2.4	1936 x 1216	Type 1/2.3	Global	192	3.45 x 3.45	•/•/-/-
G5-291	Sony IMX421 CMOS	2.8	1944 x 1472	Type 2/3	Global	166	4.5 x 4.5	•/•/-/-
G5-500	ON Semi AR0521SR CMOS	5.0	2592 x 1944	Type 1/2.5	Rolling	68	2.2 x 2.2	•/•/-/-
G5-507 Pol	Sony IMX264MZR/MYR CMOS	5.1	2464 x 2056	Type 2/3	Global	34	3.45 x 3.45	•/•/-/- Polarized
G5-508	Sony IMX250 CMOS	5.0	2464 x 2056	Type 2/3	Global	95	3.45 x 3.45	•/•/-/-
G5-508 Pol	Sony IMX250 MZR/MYR CMOS	5.1	2464 x 2056	Type 2/3	Global	95	3.45 x 3.45	•/•/-/- Polarized
G5-510	Sony IMX548 CMOS	5.1	2464 x 2064	Type 1/1.8	Global	79	2.74 x 2.74	•/•/-/-
G5-511	Sony IMX547 CMOS	5.1	2464 x 2064	Type 1/1.8	Global	79	2.74 x 2.74	•/•/-/-
G5-811	Sony IMX546 CMOS	8.1	2848 x 2848	Type 2/3	Global	58	2.74 x 2.74	•/•/-/-
G5-812	Sony IMX487 CMOS	8.1	2848 x 2848	Type 2/3	Global	58	2.74 x 2.74	UV
G5-1240	Sony IMX226 CMOS	12.2	4024 x 3036	Type 1/1.7	Rolling, Global Reset	35	1.85 x 1.85	•/•/-/-
G5-1242	Sony IMX545 CMOS	12.4	4128 x 3008	Type 1/1.1	Global	39	2.74 x 2.74	•/•/-/-
G5-1620	Sony IMX542 CMOS	16.2	5328 x 3040	Type 1.1	Global	30	2.74 x 2.74	•/•/-/-
G5-2040	Sony IMX541 CMOS	20.4	4512 x 4512	Type 1.1	Global	24	2.74 x 2.74	•/•/-/-
G5-2050	Sony IMX183 CMOS	20.2	5496 x 3672	Type 1.1	Rolling	21	2.4 x 2.4	•/•/-/-
G5-2460	Sony IMX540 CMOS	24.6	5328 x 4608	Type 1.2	Global	20	2.74 x 2.74	•/•/-/-

Hardware options	Mount	Dimensions L x W x H in mm
Closed Housing	C / CS / S	60 x 29 x 29 (Closed Housing)

// ALVIUM U

Entry into high-performance imaging



Key facts

- // USB 3.1 Gen 1
- // USB3-Vision compliant
- // up to 691 frames per second
- // Intelligent power management
- // Connector with screw locks

Alvium U



Camera model	Sensor	Mega-pixels	Resolution	Sensor format	Shutter mode	Max. frame rate in fps	Pixel size in µm	Mono/color/mono NIR/color NIR
1800 U-030	Sony IMX991 InGaAs	0.3	656 x 520	Type 1/4	Global	249	5 x 5	VSWIR
1800 U-040	Sony IMX287 CMOS	0.4	728 x 544	Type 1/2.9	Global	495	6.9 x 6.9	•/•/-/-
1800 U-050	ON Semi PYTHON 480 CMOS	0.5	808 x 608	Type 1/3.6	Global	117	4.8 x 4.8	•/•/-/-
1800 U-052	Sony IMX426 CMOS	0.5	816 x 624	Type 1/1.7	Global	691	9 x 9	•/•/-/-
1800 U-120	ON Semi AR0135CS CMOS	1.2	1280 x 960	Type 1/3	Global	52	3.75 x 3.75	•/•/-/-
1800 U-130	Sony IMX990 InGaAs	1.3	1296 x 1032	Type 1/2	Global	130	5 x 5	VSWIR
1800 U-131	E2V EV76C560	1.3	1280 x 1024	Type 1/1.8	Global	59	5.3 x 5.3	•/•/-/-
1800 U-158	Sony IMX273 CMOS	1.6	1456 x 1088	Type 1/2.9	Global	258	3.45 x 3.45	•/•/-/-
1800 U-192	E2V EV76C570	1.9	1600 x 1200	Type 1/1.8	Global	59	4.5 x 4.5	•/•/-/-
1800 U-203	Sony IMX422 CMOS	2.0	1632 x 1248	Type 1/1.7	Global	200	4.5 x 4.5	•/•/-/-
1800 U-234	Sony IMX249 CMOS	2.3	1936 x 1216	Type 1/1.2	Global	40	5.86 x 5.86	•/•/-/-
1800 U-235	Sony IMX174 CMOS	2.3	1936 x 1216	Type 1/1.2	Global	90	5.86 x 5.86	•/•/-/-
1800 U-240	Sony IMX392 CMOS	2.4	1936 x 1216	Type 1/2.3	Global	178	3.45 x 3.45	•/•/-/-
1800 U-291	Sony IMX421 CMOS	2.9	1944 x 1472	Type 2/3	Global	144	4.5 x 4.5	•/•/-/-
1800 U-319	Sony IMX265 CMOS	3.2	2064 x 1544	Type 1/1.8	Global	54	3.45 x 3.45	•/•/-/-
1800 U-500	ON Semi AR0521SR CMOS	5.0	2592 x 1944	Type 1/2.5	Rolling	68	2.2 x 2.2	•/•/-/-
1800 U-501	ON Semi AR0522 CMOS	5.0	2592 x 1944	Type 1/2.5	Rolling	68	2.2 x 2.2	-/-/•/•
1800 U-507	Sony IMX264 CMOS	5.1	2464 x 2056	Type 2/3	Global	34	3.45 x 3.45	•/•/-/-
1800 U-507 Pol	Sony IMX264MZR/MYR CMOS	5.1	2464 x 2056	Type 2/3	Global	34	3.45 x 3.45	•/•/-/- Polarized
1800 U-508	Sony IMX250 CMOS	5.1	2464 x 2056	Type 2/3	Global	85	3.45 x 3.45	•/•/-/-
1800 U-508 Pol	Sony IMX250 MZR/MYR CMOS	5.1	2464 x 2056	Type 2/3	Global	85	3.45 x 3.45	•/•/-/- Polarized
1800 U-510	Sony IMX548 CMOS	5.1	2464 x 2064	Type 1/1.8	Global	79	2.74 x 2.74	•/•/-/-
1800 U-511	Sony IMX547 CMOS	5.1	2464 x 2064	Type 1/1.8	Global	79	2.74 x 2.74	•/•/-/-
1800 U-811	Sony IMX546 CMOS	8.1	2848 x 2848	Type 2/3	Global	51	2.74 x 2.74	•/•/-/-
1800 U-812	Sony IMX487 CMOS	8.1	2848 x 2848	Type 2/3	Global	51	2.74 x 2.74	UV
1800 U-895	Sony IMX267 CMOS	8.9	4096 x 2160	Type 1	Global	31	3.45 x 3.45	•/•/-/-
1800 U-1236	Sony IMX304 CMOS	12.4	4112 x 3008	Type 1.1	Global	23	3.45 x 3.45	•/•/-/-
1800 U-1240	Sony IMX226 CMOS	12.2	4024 x 3036	Type 1/1.7	Rolling, Global Reset	35	1.85 x 1.85	•/•/-/-
1800 U-1242	Sony IMX545 CMOS	12.4	4128 x 3008	Type 1/1.1	Global	34	2.74 x 2.74	•/•/-/-
1800 U-1620	Sony IMX542 CMOS	16.2	5328 x 3040	Type 1.1	Global	26	2.74 x 2.74	•/•/-/-
1800 U-2040	Sony IMX541 CMOS	20.4	4512 x 4512	Type 1.1	Global	21	2.74 x 2.74	•/•/-/-
1800 U-2050	Sony IMX183 CMOS	20.2	5496 x 3672	Type 1	Rolling, Global Reset	21	2.4 x 2.4	•/•/-/-
1800 U-2460	Sony IMX540 CMOS	24.6	5328 x 4608	Type 1.2	Global	17	2.74 x 2.74	•/•/-/-

Hardware options	Mounts	Dimensions L x W x H in mm
Bare Board / Open Housing / Closed Housing	C / CS / S / USB standard / USB 90°	13 x 26 x 26 (Bare Board)

// ALVIUM C

Advanced embedded vision



Key facts

- // Implement driver once, use with any Alvium CSI-2 camera
- // Use our Vimba X APIs to control Alvium CSI-2 camera via Genicam4CSI-2
- // Advanced triggering and image optimization for CSI-2
- // Wide embedded platform support; Nvidia Jetson, AMD Xilinx Zynq, NXP i.MX8M Plus

Alvium C



Camera model	Sensor	Mega-pixels	Resolution	Sensor format	Shutter mode	Max. frame rate in fps	Pixel size in µm	Mono/color/mono NIR/color NIR
1500 C-050	ON Semi PYTHON 480 CMOS	0.5	808 x 608	Type 1/3.6	Global	117	4.8 x 4.8	•/•/-/-
1500 C-120	ON Semi AR0135CS CMOS	1.2	1280 x 960	Type 1/3	Global	52	3.75 x 3.75	•/•/-/-
1500 C-210	ON Semi AR0521SR HD CMOS	2.1	1928 x 1088	Type 1/3.6	Rolling	119	2.2 x 2.2	•/•/-/-
1500 C-501	ON Semi AR0522SR CMOS	5.0	2592 x 1944	Type 1/2.5	Rolling	68	2.2 x 2.2	-/-/•/•
1800 C-030	Sony IMX991 InGaAs	0.3	656 x 520	Type 1/4	Global	132	5 x 5	VSWIR
1800 C-040	Sony IMX287 CMOS	0.4	728 x 544	Type 1/2.9	Global	302	6.9 x 6.9	•/•/-/-
1800 C-052	Sony IMX426 CMOS	0.5	816 x 624	Type 1/1.7	Global	499	9 x 9	•/•/-/-
1800 C-130	Sony IMX990 InGaAs	1.3	1296 x 1032	Type 1/2	Global	69	5 x 5	VSWIR
1800 C-158	Sony IMX273 CMOS	1.6	1456 x 1088	Type 1/2.9	Global	157	3.45 x 3.45	•/•/-/-
1800 C-203	Sony IMX422 CMOS	2.0	1632 x 1248	Type 1/1.7	Global	156	4.5 x 4.5	•/•/-/-
1800 C-234	Sony IMX249 CMOS	2.3	1936 x 1216	Type 1/1.2	Global	31	5.86 x 5.86	•/•/-/-
1800 C-235	Sony IMX174 CMOS	2.3	1936 x 1216	Type 1/1.2	Global	155	5.86 x 5.86	•/•/-/-
1800 C-240	Sony IMX392 CMOS	2.4	1936 x 1216	Type 1/2.3	Global	128	3.45 x 3.45	•/•/-/-
1800 C-291	Sony IMX421 CMOS	2.9	1944 x 1472	Type 2/3	Global	116	4.5 x 4.5	•/•/-/-
1800 C-319	Sony IMX265 CMOS	3.2	2064 x 1544	Type 1/1.8	Global	54	3.45 x 3.45	•/•/-/-
1800 C-500	ON Semi AR0521SR CMOS	5.0	2592 x 1944	Type 1/2.5	Rolling	68	2.2 x 2.2	•/•/-/-
1800 C-507	Sony IMX264 CMOS	5.1	2464 x 2056	Type 2/3	Global	34	3.45 x 3.45	•/•/-/-
1800 C-507 Pol	SonyIMX264MZR/MYR CMOS	5.1	2464 x 2056	Type 2/3	Global	34	3.45 x 3.45	•/•/-/- Polarized
1800 C-508	Sony IMX250 CMOS	5.1	2464 x 2056	Type 2/3	Global	66	3.45 x 3.45	•/•/-/-
1800 C-508 Pol	Sony IMX250 MZR/MYR CMOS	5.1	2464 x 2056	Type 2/3	Global	66	3.45 x 3.45	•/•/-/- Polarized
1800 C-510	Sony IMX548 CMOS	5.1	2464 x 2064	Type 1/1.8	Global	81	2.74 x 2.74	•/•/-/-
1800 C-511	Sony IMX547 CMOS	5.1	2464 x 2064	Type 1/1.8	Global	79	2.74 x 2.74	•/•/-/-
1800 C-811	Sony IMX546 CMOS	8.1	2848 x 2848	Type 2/3	Global	59	2.74 x 2.74	•/•/-/-
1800 C-812	Sony IMX487 CMOS	8.1	2848 x 2848	Type 2/3	Global	51	2.74 x 2.74	UV
1800 C-895	Sony IMX267 CMOS	8.9	4112 x 2176	Type 1	Global	31	3.45 x 3.45	•/•/-/-
1800 C-1236	Sony IMX304 CMOS	12.4	4112 x 3008	Type 1.1	Global	23	3.45 x 3.45	•/•/-/-
1800 C-								

// ALVIUM FP3/GM2 COAX/STP, ROBUST CSI-2 BASED ALVIUM FPD-Link™ III and GMSL2™ for Machine Vision



Alvium FP3 / GM2 Coax

Key facts

- // Fast and low-overhead image transmission on embedded systems
- // Wide machine vision feature set available via Genicam4CSI-2
- // I/O connector for direct camera triggering or peripherals control

Alvium FP3/GM2 Coax/STP

Camera model	Sensor	Mega-pixels	Resolution	Sensor format	Shutter mode	Pixel size in µm	Mono/color/mono NIR/color NIR
FP3/GM2-030	Sony IMX991 InGaAs	0.3	656 x 520	Type 1/4	Global	5 x 5	VSWIR
FP3/GM2-040	Sony IMX287 CMOS	0.4	728 x 544	Type 1/2.9	Global	6.9 x 6.9	•/•/-/-
FP3/GM2-050*	ON Semi PYTHON 480 CMOS	0.5	808 x 608	Type 1/3.6	Global	4.8 x 4.8	•/•/-/-
FP3/GM2-052	Sony IMX426 CMOS	0.5	816 x 624	Type 1/1.7	Global	9 x 9	•/•/-/-
FP3/GM2-120*	ON Semi AR0135CS CMOS	1.2	1280 x 960	Type 1/3	Global	3.75 x 3.75	•/•/-/-
FP3/GM2-130	Sony IMX990 InGaAs	1.3	1296 x 1032	Type 1/1.2	Global	5 x 5	VSWIR
FP3/GM2-158	Sony IMX273 CMOS	1.6	1456 x 1088	Type 1/2.9	Global	3.45 x 3.45	•/•/-/-
FP3/GM2-210	ON Semi AR0521SRHD CMOS	2.1	1928 x 1088	Type 1/3.6	Global	2.2 x 2.2	•/•/-/-
FP3/GM2-234	Sony IMX249 CMOS	2.4	1936 x 1216	Type 1/1.2	Global	5.86 x 5.86	•/•/-/-
FP3/GM2-235	Sony IMX174 CMOS	2.4	1936 x 1216	Type 1/1.2	Global	5.86 x 5.86	•/•/-/-
FP3/GM2-240	Sony IMX392 CMOS	2.4	1936 x 1216	Type 1/2.3	Global	3.45 x 3.45	•/•/-/-
FP3/GM2-291	Sony IMX421 CMOS	2.9	1944 x 1472	Type 2/3	Global	4.5 x 4.5	•/•/-/-
FP3/GM2-319	Sony IMX265 CMOS	3.2	2064 x 1544	Type 1/1.8	Global	3.45 x 3.45	•/•/-/-
FP3/GM2-500	ON Semi AR0521SR CMOS	5.0	2592 x 1944	Type 1/2.5	Rolling	2.2 x 2.2	•/•/-/-
FP3/GM2-501	ON Semi AR0522 CMOS	5.0	2592 x 1944	Type 1/2.5	Rolling	2.2 x 2.2	-/-/•/•
FP3/GM2-507	Sony IMX264 CMOS	5.1	2464 x 2056	Type 2/3	Global	3.45 x 3.45	•/•/-/-
FP3/GM2-507 Pol	Sony IMX264MZR/MYR CMOS	5.1	2464 x 2056	Type 2/3	Global	3.45 x 3.45	•/•/-/- Polarized
FP3/GM2-508	Sony IMX250 CMOS	5.1	2464 x 2056	Type 2/3	Global	3.45 x 3.45	•/•/-/-
FP3/GM2-508 Pol	Sony IMX250 MZR/MYR CMOS	5.1	2464 x 2056	Type 2/3	Global	3.45 x 3.45	•/•/-/- Polarized
FP3/GM2-510	Sony IMX548 CMOS	5.1	2472 x 2064	Type 1.1	Global	2.74 x 2.74	•/•/-/-
FP3/GM2-511	Sony IMX547 CMOS	5.1	2472 x 2064	Type 1/1.8	Global	2.74 x 2.74	•/•/-/-
FP3/GM2-811	Sony IMX546 CMOS	8.1	2848 x 2848	Type 2/3	Global	2.74 x 2.74	•/•/-/-
FP3/GM2-812	Sony IMX487 CMOS	8.1	2848 x 2848	Type 2/3	Global	2.74 x 2.74	UV
FP3/GM2-895	Sony IMX267 CMOS	8.9	4112 x 2176	Type 1	Global	3.45 x 3.45	•/•/-/-
FP3/GM2-1236	Sony IMX304 CMOS	12.4	4112 x 3008	Type 1.1	Global	3.45 x 3.45	•/•/-/-
FP3/GM2-1240	Sony IMX226 CMOS	12.2	4024 x 3036	Type 1/1.7	Rolling, Global Reset	1.85 x 1.85	•/•/-/-
FP3/GM2-1242	Sony IMX545 CMOS	12.4	4112 x 3008	Type 1/2	Global	2.74 x 2.74	•/•/-/-
FP3/GM2-1620	Sony IMX542 CMOS	16.2	5312 x 3040	Type 1.1	Global	2.74 x 2.74	•/•/-/-
FP3/GM2-2040	Sony IMX541 CMOS	20.4	4512 x 4512	Type 1.1	Global	2.74 x 2.74	•/•/-/-
FP3/GM2-2050	Sony IMX183 CMOS	19.7	5376 x 3672	Type 1	Rolling, Global Reset	2.4 x 2.4	•/•/-/-
FP3/GM2-2460	Sony IMX540 CMOS	24.6	5328 x 4608	Type 1.2	Global	2.74 x 2.74	•/•/-/-

// ALECS The Open Smart Camera



M12 connectors for Ethernet and Power/I/O

Alecs, a brand new all-in-one machine vision solution that combines the feature rich Alvium camera platform with the processing power of Nvidia Orin NX SoM in a robust IP67 housing.

Key facts

- // High-resolution (5 and 12 MP) mono and color imaging
- // NVIDIA Jetson Orin NX SoM
- // Compatible with third-party image processing libraries e.g. Open eVision
- // Control the camera via Genicam4CSI-2 or Video for Linux V4L2
- // Operating temperature at -20 °C to +65 °C (housing)

Alecs

Camera model	Sensor	Shutter mode	Mega-pixels	Resolution	Max. frame rate in fps	Pixel size in µm	Sensor format	Mono/color/mono NIR/color NIR
Alecs LXB-G1-510m/c	Sony IMX548 CMOS	Global	5.0	2464 x 2064	81	2.74 x 2.75	Type 1/1.8	•/•/-/-
Alecs LXB-G1-1242m/c	Sony IMX545 CMOS	Global	12	4128 x 3008	40	2.74 x 2.75	Type 1/1.8	•/•/-/-

// ALLIED VISION ACCESSORIES Tested for 100% performance



Allied Vision approved accessories have been selected by our experts to ensure top image quality and reliability. By evaluating lenses, cables, and other components with our cameras, we recommend the best options to maximize your camera's performance.

Lenses

Choose from a broad variety of lenses. We offer lenses from almost every supplier and from Allied Vision.

Cables

Cable quality matters when connecting your camera. Choose our reliable cables for data, I/O, and power.

Interface cards & Interface connection

Maximize your interface with our cards for high bandwidth camera connections. Adapter boards connect your camera to various embedded boards.

// GOLDEYE Imaging beyond the visible



Goldeye short-wave infrared (SWIR) cameras offer a high grade of versatility whether resolution, interface, lens-mount, spectral range or thermo-electric sensor cooling wise (TEC1, TEC2, TECless). They can be operated at high frame rates and their multiple on-board image processing features provide superior imaging results with low-noise, high linearity, and high dynamic range. Standardized GigE Vision or Camera Link interface and GenICam-like feature control provide a plug & play feeling when utilizing these robust, high-quality SWIR cameras.

The new Goldeye Pro camera series is equipped with a GigE Vision compliant 5 Gbps interface, for highest throughput, quality, and imaging performance. It supports optimally the higher bandwidth requirements of the latest SWIR sensor solutions while enabling simultaneously an efficient sensor temperature stabilization via thermoelectric coolers (TEC).

Key facts Goldeye G/CL

- // Resolution up to 1.3 megapixels (QVGA, VGA, and SXGA)
- // Various InGaAs sensor technologies supported, including visible SWIR and eXtended SWIR
- // Extended operating temperature range: -20° C to +55° C (housing)

Key facts Goldeye PRO

- // High resolutions up to 5.3 MP and fast framerates
- // Thermo-electric cooled IMX99x sensors for optimal imaging results
- // Best-in-class imaging performance

Goldeye G/CL

Camera model	Sensor	Shutter mode	Mega-pixels	Resolution	Max. frame rate in fps	Pixel size in µm	Spectral range in nm	Standard mount	Power over Ethernet
G/CL-008 TEC1	InGaAs FPA with TEC1 cooling (Min. ΔT = 20 K)	Global	0.1	320 x 256	344	30 x 30	900 to 1700	C-Mount	IEEE 802.3af (PoE)
G/CL-030 T1	Sony IMX991 with TEC1 cooling (Min. ΔT = 25 K)	Global	0.3	656 x 520	234	5 x 5	400 to 1700	C-Mount	IEEE 802.3af (PoE)
G/CL-032 TEC1	InGaAs FPA with TEC1 cooling (Min. ΔT = 30 K)	Global	0.3	636 x 508	100	25 x 25	900 to 1700	C-Mount	IEEE 802.3af (PoE)
G/CL-033 TEC1	InGaAs FPA with TEC1 cooling (Min. ΔT = 25 K)	Global	0.3	640 x 512	301	15 x 15	900 to 1700	C-Mount	IEEE 802.3af (PoE)
G/CL-033 TECless	InGaAs FPA without TEC cooling	Global	0.3	640 x 512	301	15 x 15	900 to 1700	C-Mount	IEEE 802.3af (PoE)
G/CL-034 TEC1	InGaAs FPA with TEC1 cooling (Min. ΔT = 25 K)	Global	0.3	636 x 508	303	15 x 15	900 to 1700	C-Mount	IEEE 802.3af (PoE)
G/CL-130 T1	Sony IMX990 with TEC1 cooling (Min. ΔT = 25 K)	Global	1.3	1280 x 1024	94	5 x 5	400 to 1700	C-Mount	IEEE 802.3af (PoE)



Goldeye G/CL

Goldeye G/CL Cool/XSWIR

Camera model	Sensor	Shutter mode	Mega-pixels	Resolution	Max. frame rate in fps	Pixel size in µm	Spectral range in nm	Standard mount	Power over Ethernet
G/CL-008 Cool TEC1	InGaAs FPA with TEC1 cooling (Min. ΔT = 30 K)	Global	0.1	320 x 256	344	30 x 30	900 to 1700	C-Mount	IEEE 802.3af (PoE)
G/CL-008 XSWIR 1.9 TEC2	InGaAs FPA with TEC2 cooling (Min. ΔT = 60 K)	Global	0.1	320 x 256	344	30 x 30	1100 to 1900	C-Mount	IEEE 802.3af (PoE+)
G-008 XSWIR 2.2 TEC2	InGaAs FPA with TEC2 cooling (Min. ΔT = 60 K)	Global	0.1	320 x 256	344	30 x 30	1200 to 2200	C-Mount	IEEE 802.3af (PoE+)
G/CL-032 Cool TEC2	InGaAs FPA with TEC2 cooling (Min. ΔT = 60 K)	Global	0.3	636 x 508	100	25 x 25	900 to 1700	C-Mount	IEEE 802.3af (PoE+)
G/CL-034 TEC2	InGaAs FPA with TEC2 (Min. ΔT = 60 K)	Global	0.3	636 x 508	303	15 x 15	900 to 1700	C-Mount	IEEE 802.3af (PoE+)
G/CL-034 XSWIR 1.9 TEC2	Extended InGaAs FPA with TEC2 (Min. ΔT = 60 K)	Global	0.3	636 x 508	303	15 x 15	1100 to 1900	C-Mount	IEEE 802.3af (PoE+)
G/CL-034 XSWIR 2.2 TEC2	Extended InGaAs FPA with TEC2 (Min. ΔT = 60 K)	Global	0.3	636 x 508	303	15 x 15	1200 to 2200	C-Mount	IEEE 802.3af (PoE+)

Modular concept	Mount	Dimensions L x W x H in mm (including connectors and standard mount)
IR band-pass filter / Silver design	F / M42	Standard: 93.2 x 55 x 55 Cool: 105.8 x 80 x 80 XSWIR: 105 x 80 x 80



Goldeye G/CL Cool and XSWIR

Goldeye Pro

Camera model	Sensor	Shutter mode	Mega-pixels	Resolution	Max. frame rate in fps	Pixel size in µm	Spectral range in nm	Standard mount	Power over Ethernet
Goldeye Pro G5-530	IMX992 SenSWIR Type 1/1.4 (Max. ΔT = 30 K)	Global	5.3	2592 x 2056	115	3.45 x 3.45	400 to 1,700	C-Mount	IEEE 802.3af (PoE)
Goldeye Pro G5-320	IMX993 SenSWIR Type 1/1.8 (Max. ΔT = 30 K)	Global	3.2	2080 x 1544	157	3.45 x 3.45	400 to 1,700	C-Mount	IEEE 802.3af (PoE)



Goldeye Pro G5

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