



// ALLIED VISION CAMERA LINE-UP

High-performance cameras
for computer vision

// FOCUSING ON YOUR NEEDS

Better vision for your application

For more than 35 years, we at Allied Vision have been helping people to reach their imaging goals. From raising production standards to detecting diseases faster, or simply knowing who crossed the finish line first, we know that precision and truth are vital for our customers. This is why we focus on what counts: delivering imaging solutions tailored to your needs.

Quality you can count on

All our cameras are designed and manufactured in our own R&D and production facilities according to the ISO 9001 and ISO 13485 standards. Our three-year warranty reflects our commitment to quality.

Personal service near you

Allied Vision's worldwide sales and support network allows us to deliver first-class service before, during, and after your purchase. We have offices and sales representatives in Europe, the USA, Singapore, and China, and have teamed up with selected distribution partners in more than 40 countries to ensure we are always


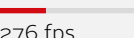













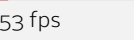

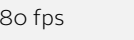


there to help you whenever you need us. This unique combination of technology, quality, and service has allowed us to become one of the world's leading providers of cameras for intelligent computer vision in applications as diverse as industrial inspection, scientific and medical imaging, traffic monitoring, and sports and entertainment.

TKH Group

To provide a strong alliance for technology leadership in the vision area, Allied Vision is a member of the TKH Group which provides comprehensive imaging solutions and technologies.

// ATTRIBUTES AT A GLANCE

The Allied Vision camera line-up

Camera series	Interface options	Maximum resolution	Sensor options	Spectral range	Maximum frame rate	Where to find
Alvium G1		24.6 MP	CMOS Rolling, Global, Global Reset	Visible	 276 fps	Page 4
Alvium G5		24.6 MP	CMOS Rolling, Global, Global Reset	Visible, SWIR, UV	 464 fps	Page 6
Alvium U		24.6 MP	CMOS Rolling, Global, Global Reset	Visible, NIR, SWIR, UV	 691 fps	Page 8
Alvium C		24.6 MP	CMOS Rolling and Global	Visible, SWIR, UV	 499 fps	Page 10
Alvium FP3/GM2		24.6 MP	CMOS Rolling and Global	Visible, SWIR, UV	 499 fps	Page 12
Alvium Modular Concept						Page 14
Mako		12.4 MP	CCD/CMOS Rolling, Global, Global Reset	Visible, NIR	 286 fps	Page 16
Manta		24.6 MP	CCD/CMOS Global	Visible, NIR	 286 fps	Page 18
Prosilica GT		31.4 MP	CCD/CMOS Global	Visible, NIR	 53 fps	Page 20
Bonito PRO		26.2 MP	CMOS Rolling, Global	Visible, NIR	 80 fps	Page 22
Goldeye		1.3 MP	InGaAs	SWIR	 344 fps	Page 24
Nerian 3D						Page 26
Accessories & Software						Page 28

// ALVIUM G1

The GigE Vision refresh



Alvium G1 is the first GigE Vision camera powered by ALVIUM® Technology, Allied Vision's ASIC chip. It combines the advantages of the established GigE Vision standard with the flexibility of the Alvium platform. In addition to a comprehensive feature set and a broad sensor selection, it offers great versatility. With its very compact housing and industrial standard hardware, it can easily be integrated into any vision systems while ensuring long-term availability and reliability.

Key facts

- // GigE Vision Interface
- // Resolution up to 24.6 megapixels
- // Global and rolling Shutter sensors
- // Up to 276 frames per second a full resolution
- // Shortest sugar cube GigE Vision camera in the market

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 × 520	Type 1/4	Global	249	5 × 5	VSWIR
G1-040	Sony IMX287 CMOS	0.4	728 × 544	Type 1/2.9	Global	276	6.9 × 6.9	•/•/-/-
G1-130	Sony IMX990 InGaAs	1.3	1296 × 1032	Type 1/2	Global	86	5 × 5	VSWIR
G1-158	Sony IMX273 CMOS	1.6	1456 × 1088	Type 1/2.9	Global	72	3.45 × 3.45	•/•/-/-
G1-234	Sony IMX249 CMOS	2.4	1936 × 1216	Type 1/1.2	Global	40	5.86 × 5.86	•/•/-/-
G1-240	Sony IMX392 CMOS	2.4	1936 × 1216	Type 1/2.3	Global	49	3.45 × 3.45	•/•/-/-
G1-319	Sony IMX265 CMOS	3.2	2064 × 1544	Type 1/1.8	Global	36	3.45 × 3.45	•/•/-/-
G1-500	ON Semi AR0521SR CMOS	5.0	2592 × 1944	Type 1/2.5	Rolling	23	2.2 × 2.2	•/•/-/-
G1-507	Sony IMX264 CMOS	5.1	2464 × 2056	Type 2/3	Global	23	3.45 × 3.45	•/•/-/-
G1-510	Sony IMX548 CMOS	5.1	2464 × 2064	Type 1/1.8	Global	23	2.74 × 2.74	•/•/-/-
G1-811	Sony IMX546 CMOS	8.1	2848 × 2848	Type 2/3	Global	14	2.74 × 2.74	•/•/-/-
G1-812	Sony IMX487 CMOS	8.1	2848 × 2848	Type 2/3	Global	14	2.74 × 2.74	UV
G1-895	Sony IMX267 CMOS	8.9	4112 × 2176	Type 1	Global	13	3.45 × 3.45	•/•/-/-
G1-1236	Sony IMX304 CMOS	12.4	4112 × 3008	Type 1.1	Global	9	3.45 × 3.45	•/•/-/-
G1-1240	Sony IMX226 CMOS	12.2	4024 × 3036	Type 1/1.7	Rolling, Global Reset	9	1.85 × 1.85	•/•/-/-
G1-1242	Sony IMX545 CMOS	12.4	4128 × 3008	Type 1/1.1	Global	9	2.74 × 2.74	•/•/-/-
G1-1620	Sony IMX542 CMOS	16.2	5328 × 3040	Type 1.1	Global	7	2.74 × 2.74	•/•/-/-
G1-2040	Sony IMX541 CMOS	20.4	4512 × 4512	Type 1.1	Global	5	2.74 × 2.74	•/•/-/-
G1-2050	Sony IMX183 CMOS	20.2	5496 × 3672	Type 1	Rolling	5	2.4 × 2.4	•/•/-/-
G1-2460	Sony IMX540 CMOS	24.6	5328 × 4608	Type 1.2	Global	4	2.74 × 2.74	•/•/-/-

Hardware options

// Closed Housing

// C-Mount / CS-Mount / S-Mount

Dimensions L × W × H in mm

// 41 × 29 × 29 (Closed Housing)



// ALVIUM G5

The easy upgrade for more performance



The Alviium G5 camera series combines the advantages of the 5GigE interface and the flexibility of the Alviium platform. It provides all the advantages of the GigE Vision standard while providing more bandwidth for applications, where resolution and frame rate are critical. The Alviium G5 camera series enables an easy upgrade of existing systems (USB3 Vision or 1GigE Vision) and offers backwards compatibility with 1GigE solutions. Powered by ALVIUM® Technology, the sugar cube Alviium G5 camera delivers highest image quality at a low power consumption.

Key facts

- // 5GigE Vision Interface
- // Resolution up to 24.6 megapixels
- // Global and rolling Shutter sensors
- // Up to 464 frames per second a full resolution
- // Performance boost in sugar cube form factor

Alviium 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	114	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	•/•/-/-
G5-508	Sony IMX250 CMOS	5.0	2464 x 2056	Type 2/3	Global	95	3.45 x 3.45	•/•/-/-
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 1/1.1	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

// Closed Housing

// C-Mount / CS-Mount / S-Mount

Dimensions L x W x H in mm

// 60 x 29 x 29 (Closed Housing)



// ALVIUM U

Entry into high-performance imaging



Alvium U is the camera series that allows you to enter high-performance imaging with ALVIUM® Technology for industrial applications. Equipped with the latest generation of Sony and ON Semiconductor sensors, these small and power-efficient cameras deliver high image quality and frame rates in a robust industrial housing. With its USB3-Vision-compliant interface and industrial-grade hardware, it is your workhorse for different machine vision applications whether it is on a PC-based or an embedded system.

Key facts

- // USB3 Vision interface
- // Resolutions up to 24.6 megapixels
- // Global, Global Reset, and Rolling Shutter sensors
- // Up to 691 frames per second at full resolution
- // UV, Near-infrared, and SWIR models

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 × 520	Type 1/4	Global	249	5 × 5	VSWIR
1800 U-040	Sony IMX287 CMOS	0.4	728 × 544	Type 1/2.9	Global	495	6.9 × 6.9	•/•/-/-
1800 U-050	ON Semi PYTHON 480 CMOS	0.5	808 × 608	Type 1/3.6	Global	117	4.8 × 4.8	•/•/-/-
1800 U-052	Sony IMX426 CMOS	0.5	816 × 624	Type 1/1.7	Global	691	9 × 9	•/•/-/-
1800 U-120	ON Semi AR0135CS CMOS	1.2	1280 × 960	Type 1/3	Global	52	3.75 × 3.75	•/•/-/-
1800 U-130	Sony IMX990 InGaAs	1.3	1296 × 1032	Type 1/2	Global	130	5 × 5	VSWIR
1800 U-158	Sony IMX273 CMOS	1.6	1456 × 1088	Type 1/2.9	Global	258	3.45 × 3.45	•/•/-/-
1800 U-203	Sony IMX422 CMOS	2.0	1632 × 1248	Type 1/1.7	Global	200	4.5 × 4.5	•/•/-/-
1800 U-234	Sony IMX249 CMOS	2.3	1936 × 1216	Type 1/1.2	Global	40	5.86 × 5.86	•/•/-/-
1800 U-235	Sony IMX174 CMOS	2.3	1936 × 1216	Type 1/1.2	Global	90	5.86 × 5.86	•/•/-/-
1800 U-240	Sony IMX392 CMOS	2.4	1936 × 1216	Type 1/2.3	Global	178	3.45 × 3.45	•/•/-/-
1800 U-291	Sony IMX421 CMOS	2.9	1944 × 1472	Type 2/3	Global	144	4.5 × 4.5	•/•/-/-
1800 U-319	Sony IMX265 CMOS	3.2	2064 × 1544	Type 1/1.8	Global	54	3.45 × 3.45	•/•/-/-
1800 U-500	ON Semi AR0521SR CMOS	5.0	2592 × 1944	Type 1/2.5	Rolling	68	2.2 × 2.2	•/•/-/-
1800 U-501	ON Semi AR0522 CMOS	5.0	2592 × 1944	Type 1/2.5	Rolling	68	2.2 × 2.2	-/-/•/•
1800 U-507	Sony IMX264 CMOS	5.1	2464 × 2056	Type 2/3	Global	34	3.45 × 3.45	•/•/-/-
1800 U-508	Sony IMX250 CMOS	5.1	2464 × 2056	Type 2/3	Global	85	3.45 × 3.45	•/•/-/-
1800 U-510	Sony IMX548 CMOS	5.1	2464 × 2064	Type 1/1.8	Global	79	2.74 × 2.74	•/•/-/-
1800 U-511	Sony IMX547 CMOS	5.1	2464 × 2064	Type 1/1.8	Global	79	2.74 × 2.74	•/•/-/-
1800 U-811	Sony IMX546 CMOS	8.1	2848 × 2848	Type 2/3	Global	51	2.74 × 2.74	•/•/-/-
1800 U-812	Sony IMX487 CMOS	8.1	2848 × 2848	Type 2/3	Global	51	2.74 × 2.74	UV
1800 U-895	Sony IMX267 CMOS	8.9	4096 × 2160	Type 1	Global	31	3.45 × 3.45	•/•/-/-
1800 U-1236	Sony IMX304 CMOS	12.4	4112 × 3008	Type 1.1	Global	23	3.45 × 3.45	•/•/-/-
1800 U-1240	Sony IMX226 CMOS	12.2	4024 × 3036	Type 1/1.7	Rolling, Global Reset	35	1.85 × 1.85	•/•/-/-
1800 U-1242	Sony IMX545 CMOS	12.4	4128 × 3008	Type 1/1.1	Global	34	2.74 × 2.74	•/•/-/-
1800 U-1620	Sony IMX542 CMOS	16.2	5328 × 3040	Type 1.1	Global	26	2.74 × 2.74	•/•/-/-
1800 U-2040	Sony IMX541 CMOS	20.4	4512 × 4512	Type 1.1	Global	21	2.74 × 2.74	•/•/-/-
1800 U-2050	Sony IMX183 CMOS	20.2	5496 × 3672	Type 1	Rolling, Global Reset	21	2.4 × 2.4	•/•/-/-
1800 U-2460	Sony IMX540 CMOS	24.6	5328 × 4608	Type 1.2	Global	17	2.74 × 2.74	•/•/-/-

Hardware options

// Bare Board / Open Housing / Closed Housing // C-Mount / CS-Mount / S-Mount // USB standard connector / USB 90° connector

Dimensions L x W x H in mm

// 13 × 26 × 26 (Bare Board)



Bare Board / Open Housing 90° / Closed Housing Standard

// ALVIUM C

Industrial-grade cameras for advanced embedded vision



The powerful Alvium C MIPI CSI-2 camera series gives embedded system developers access to Sony's high-performance image sensors popular in the machine vision industry. Additionally, some models are available with GenIcam for CSI-2 enabling many more features. They can be controlled via our Vimba X SDK. Migrating from another camera interface to CSI-2 has thus become much easier. For the first time CSI-2 cameras are now available with a machine vision feature set. Independent of the camera model, the standardized driver ensures quick integration and the flexibility to change camera models easily.

Key facts

- // MIPI CSI-2 interface
- // Resolutions up to 24.6 megapixels
- // Global and Rolling Shutter sensors
- // Up to 499 frames per second at full resolution
- // On-board image corrections

Alvium C



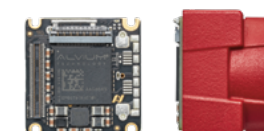
Camera model	Sensor	Mega-pixels	Resolution	Sensor format	Shutter mode	Max. frame rate in fps	Pixel size in μm	Mono/color/mono NIR/color NIR
1500 C-050	ON Semi PYTHON 480 CMOS	0.5	808 x 608	Type 1/3.6	Global	117	4.8 x 4.8	•/•/-/-
1500 C-120	ON Semi AR0135CS CMOS	1.2	1280 x 960	Type 1/3	Global	52	3.75 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	121	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-508	Sony IMX250 CMOS	5.1	2464 x 2056	Type 2/3	Global	66	3.45 x 3.45	•/•/-/-
1800 C-510	Sony IMX548 CMOS	5.1	2464 x 2064	Type 1/1.8	Global	79	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-1240	Sony IMX226 CMOS	12.2	4024 x 3036	Type 1/1.7	Rolling	41	1.85 x 1.85	•/•/-/-
1800 C-1242	Sony IMX545 CMOS	12.4	4128 x 3008	Type 1/1.1	Global	39	2.74 x 2.74	•/•/-/-
1800 C-1620	Sony IMX542 CMOS	16.2	5328 x 3040	Type 1.1	Global	30	2.74 x 2.74	•/•/-/-
1800 C-2040	Sony IMX541 CMOS	20.4	4512 x 4512	Type 1.1	Gobal	24	2.74 x 2.74	•/•/-/-
1800 C-2050	Sony IMX183 CMOS	19.7	5376 x 3672	Type 1	Rolling	25	2.4 x 2.4	•/•/-/-
1800 C-2460	Sony IMX540 CMOS	24.6	5328 x 4608	Type 1.2	Gobal	20	2.74 x 2.74	•/•/-/-

Hardware options

// Bare Board / Open Housing // C-Mount / CS-Mount / S-Mount

Dimensions L x W x H in mm

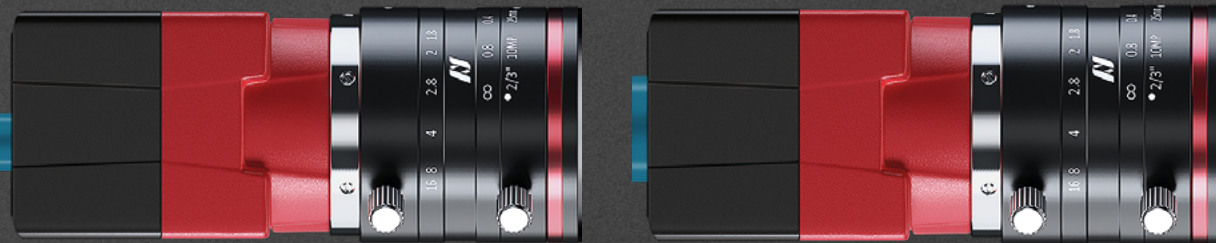
// 13 x 26 x 26 (Bare Board)



NEW

// ALVIUM FP3/GM2 COAX/STP

Robust CSI-2 based Alvium cameras for long cable solutions



Alvium FP3 cameras with FPD-Link III (Flat Panel Display Link) interface and Alvium GM2 cameras with GMSL2 (Gigabit Multimedia Serial Link) interface have been designed to overcome the limitations of standard CSI-2 cameras. With a large choice of over 30 high-quality CMOS global and rolling shutter sensors from Sony, 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, 2 GPIOs (General Purpose Input/Output) and two rugged interface connectors to choose from.

For applications with static cables, Alvium FP3/GM2 cameras are available as Coax models with a FAKRA connector, supporting up to 15 m with FAKRA coaxial cables.

For applications with moving cables, Alvium FP3/GM2 STP cameras with an HSD connector and STP (Shielded Twisted Pair) cables are better suited. The thin STP cables permit a tighter bend radius, are more flexible, and support up to 10 m for FP3 and up to 8 m for GM2 models.

Key facts

- // FPD-Link III and GMSL2 interface
- // Support for Genicam via CSI-2
- // Full electromagnetic compatibility (EMC) compliance
- // Resistance against shock and vibrations
- // Resolutions up to 24.6 megapixels
- // Frame rates up to 499 frames per second

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/GM2-508	Sony IMX250 CMOS	5.1	2464 x 2056	Type 2/3	Global	3.45 x 3.45	•/•/-/-
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	•/•/-/-

Hardware options

// Closed Housing // FAKRA connector / HSD connector // C-Mount / CS-Mount / S-Mount

Dimensions L x W x H in mm

// 41 x 29 x 29 (Closed Housing)

Max. Frame rates

// Mainly depends on hardware and register settings



Alvium FP3 / GM2 Coax

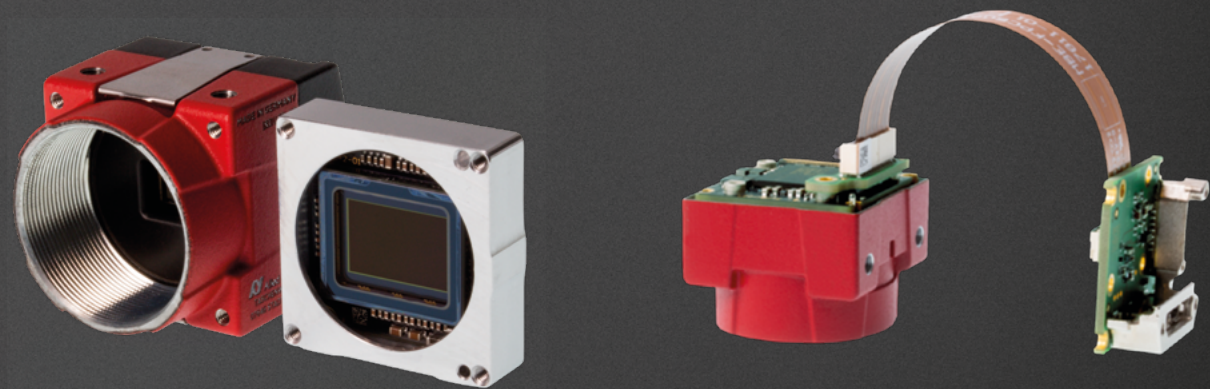
Alvium FP3 / GM2 STP

* Information concerning mentioned models

FP3/GM2-050 = on request
FP3/GM2-120 = on request

// 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:



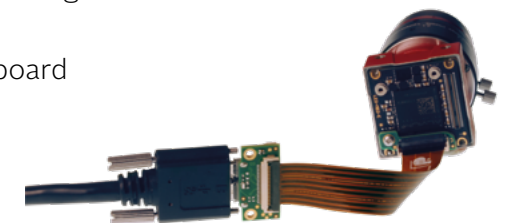
- // Precision milled areas on the bottom, side, and front of the frame
- // Precision milled front face, alignment pin, and oblong hole

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

// MAKO

Small size, powerful performance



Mako combines industrial performance and a rich feature set with a small size. Its GigE-Vision-compliant interface enables a reliable connection to your host over long distances up to 100 meters. Power over Ethernet and Trigger over Ethernet allow simplified and cost-optimized system setups as single cable solution. With advanced triggering features such as Precision Time Protocol (PTP), Mako cameras can be perfectly synchronized with other devices in a multi-camera system.

Key facts

- // GigE Vision interface
- // Resolution up to 12.4 megapixels
- // Global, Global Reset, and Rolling Shutter sensors
- // Up to 286 frames per second at full resolution
- // Near-infrared and polarizer models

Mako



Camera model	Sensor	Mega-pixels	Resolution	Sensor format	Shutter mode	Max. frame rate in fps	Pixel size in μm	Standard mount	Mono/color/mono NIR/color NIR
G-032	Sony ICX424 CCD	0.3	658 × 492	Type 1/3	Global	102.3	7.4 × 7.4	C-Mount	•/•/-/-
G-040	Sony IMX287 CMOS	0.4	728 × 544	Type 1/2.9	Global	286	6.9 × 6.9	C-Mount	•/•/-/-
G-125	Sony ICX445 CCD	1.2	1292 × 964	Type 1/3	Global	30.3	3.75 × 3.75	C-Mount	•/•/-/-
G-131	Teledyne e2v EV76C560 CMOS	1.3	1280 × 1024	Type 1/1.8	Rolling, Global, Global Reset	62	5.3 × 5.3	C-Mount	•/•/-/-
G-158	Sony IMX273 CMOS	1.6	1456 × 1088	Type 1/2.9	Global	75.2	3.45 × 3.45	C-Mount	•/•/-/-
G-192	Teledyne e2v EV76C570 CMOS	1.9	1600 × 1200	Type 1/1.8	Rolling, Global, Global Reset	60	4.5 × 4.5	C-Mount	•/•/-/-
G-223	ams CMV2000 CMOS	2.2	2048 × 1088	Type 2/3	Global	49.5	5.5 × 5.5	C-Mount	•/•/-/-
G-234	Sony IMX249 CMOS	2.4	1936 × 1216	Type 1/1.2	Global	41.5	5.86 × 5.86	C-Mount	•/•/-/-
G-319	Sony IMX265 CMOS	3.2	2064 × 1544	Type 1/1.8	Global	37.6	3.45 × 3.45	C-Mount	•/•/-/-
G-419	ams CMV4000 CMOS	4.2	2048 × 2048	Type 1	Global	26.3	5.5 × 5.5	C-Mount	•/•/-/-
G-503	ON Semi MT9P031/Poo6 CMOS	5.0	2592 × 1944	Type 1/2.5	Rolling, Global Reset	14	2.2 × 2.2	C-Mount	•/•/-/-
G-507	Sony IMX264 CMOS	5.1	2464 × 2056	Type 2/3	Global	23.7	3.45 × 3.45	C-Mount	•/•/-/-
G-508	Sony IMX250 MZR CMOS	5.1	2464 × 2056	Type 2/3	Global	23.7	3.45 × 3.45	C-Mount	•/-/-/-
G-511	Sony IMX547 CMOS	5.1	2472 × 2064	Type 1/1.8	Global	23.4	2.74 × 2.74	C-Mount	•/•/-/-
G-811	Sony IMX546 CMOS	8.1	2856 × 2848	Type 2/3	Global	14.7	2.74 × 2.74	C-Mount	•/•/-/-
G-1242	Sony IMX545 CMOS	12.4	4128 × 3008	Type 1.2	Global	9.6	2.74 × 2.74	C-Mount	•/•/-/-

Modular concept

// Various IR cut / pass filters and protection glass // CS-Mount / M12-Mount (adapter)

Dimensions (including connectors and standard mount) L × W × H in mm

// 60.5 × 29.2 × 29.2



// MANTA

Versatility at its best



Providing the largest choice of sensors and an advanced feature set, Manta is Allied Vision's most versatile GigE Vision camera series. Numerous modular options, including angled head and board level versions, facilitate the camera integration in almost any application. Manta's advanced feature set simplifies multi-camera applications, and reduces the need for cabling.

Key facts

- // GigE Vision interface
- // Resolutions up to 24.6 megapixels
- // Global Shutter sensor
- // Up to 286 frames per second at full resolution
- // Near-infrared models

Manta



Camera model	Sensor	Mega-pixels	Resolution	Sensor format	Shutter mode	Max. frame rate in fps	Pixel size in μm	Standard mount	Mono/color/mono NIR/color NIR
G-031	Sony ICX618 CCD	0.3	656 x 492	Type 1/4	Global	125.2	5.6 x 5.6	C-Mount	•/•/-/-
G-032	Sony ICX424 CCD	0.3	656 x 492	Type 1/3	Global	80.7	7.4 x 7.4	C-Mount	•/•/-/-
G-033	Sony ICX414 CCD	0.3	656 x 492	Type 1/2	Global	88.7	9.9 x 9.9	C-Mount	•/•/-/-
G-040	Sony IMX287 CMOS	0.4	728 x 544	Type 1/2.9	Global	286.3	6.9 x 6.9	C-Mount	•/•/-/-
G-046	Sony ICX415 CCD	0.5	780 x 580	Type 1/2	Global	67.5	8.3 x 8.3	C-Mount	•/•/-/-
G-125	Sony ICX445 CCD	1.2	1292 x 964	Type 1/3	Global	31.0	3.75 x 3.75	C-Mount	•/•/-/-
G-145	Sony ICX285 CCD	1.4	1388 x 1038	Type 2/3	Global	15.0	6.45 x 6.45	C-Mount	•/•/-/-
G-145-30fps	Sony ICX285 CCD	1.4	1388 x 1038	Type 2/3	Global	30.1	6.45 x 6.45	C-Mount	•/•/•/-
G-146	Sony ICX267 CCD	1.4	1388 x 1038	Type 1/2	Global	17.8	4.65 x 4.65	C-Mount	•/•/-/-
G-158	Sony IMX273 CMOS	1.6	1456 x 1088	Type 1/2.9	Global	75.2	3.45 x 3.45	C-Mount	•/•/-/-
G-201	Sony ICX274 CCD	2.0	1624 x 1234	Type 1/1.8	Global	14.7	4.4 x 4.4	C-Mount	•/•/-/-
G-201-30fps	Sony ICX274 CCD	2.0	1624 x 1234	Type 1/1.8	Global	30.0	4.4 x 4.4	C-Mount	•/•/-/-
G-223	ams CMV2000 CMOS	2.2	2048 x 1088	Type 2/3	Global	53.7	5.5 x 5.5	C-Mount	•/•/-/-
G-235	Sony IMX174 CMOS	2.4	1936 x 1216	Type 1/1.2	Global	50.8	5.86 x 5.86	C-Mount	•/•/-/-
G-282	Sony ICX687 CCD	2.8	1936 x 1458	Type 1/1.8	Global	30.4	3.69 x 3.69	C-Mount	•/•/-/-
G-283	Sony ICX674 CCD	2.8	1936 x 1458	Type 2/3	Global	30.4	4.54 x 4.54	C-Mount	•/•/-/-
G-319	Sony IMX265 CMOS	3.2	2064 x 1544	Type 1/1.8	Global	37.6	3.45 x 3.45	C-Mount	•/•/-/-
G-419	ams CMV4000 CMOS	4.2	2048 x 2048	Type 1	Global	28.6	5.5 x 5.5	C-Mount	•/•/•/-
G-504	Sony ICX655 CCD	5.0	2452 x 2056	Type 2/3	Global	9.2	3.45 x 3.45	C-Mount	•/•/-/-
G-505	Sony ICX625 CCD	5.0	2452 x 2056	Type 2/3	Global	15.0	3.45 x 3.45	C-Mount	•/•/-/-
G-507	Sony IMX264 CMOS	5.1	2464 x 2056	Type 2/3	Global	23.7	3.45 x 3.45	C-Mount	•/•/-/-
G-895	Sony IMX267 CMOS	8.9	4112 x 2176	Type 1	Global	13.4	3.45 x 3.45	C-Mount	•/•/-/-
G-917	Sony ICX814 CCD	9.2	3384 x 2710	Type 1	Global	10.1	3.69 x 3.69	C-Mount	•/•/-/-
G-1236	Sony IMX304 CMOS	12.4	4112 x 3008	Type 1.1	Global	9.7	3.45 x 3.45	C-Mount	•/•/-/-
G-1620	Sony IMX542 CMOS	16.2	5328 x 3040	Type 1.1	Global	7.4	2.74 x 2.74	C-Mount	•/•/-/-
G-2040	Sony IMX541 CMOS	20.4	4512 x 4512	Type 1.1	Global	5.9	2.74 x 2.74	C-Mount	•/•/-/-
G-2460	Sony IMX540 CMOS	24.6	5328 x 4608	Type 1.2	Global	4.9	2.74 x 2.74	C-Mount	•/•/-/-

Modular concept

- // Various IR cut / pass filters and protection glass
- // CS-Mount / M12-Mount (adapter)
- // White medical design
- // Power over Ethernet
- // Angled head (selected models)
- // Removed cover glass (G-145B only)

Board level versions (selected models)

- // Remote sensor head
- // Different flex cable lengths up to 200
- // Power over Ethernet
- // C-Mount / CS-Mount / M12-Mount (adapter)
- // Removed cover glass (G-145 only)

Dimensions (including connectors and standard mount) L x W x H in mm

- // 86.4 x 44 x 29



// PROSILICA GT

Robust and high resolution



Equipped with a robust, heat-dissipation-optimized housing and various lens control options, Prosilica GT cameras are engineered to handle harsh environments, extreme temperature variations, and constantly changing light conditions. Trigger over Ethernet using action commands enables single cable solutions, thereby reducing system costs. Prosilica GT is a real high performer, offering high resolutions and featuring CCD and CMOS sensors.

Key facts

- // GigE Vision interface
- // Resolutions up to 31.4 megapixels
- // Global Shutter sensor
- // Up to 53 frames per second at full resolution
- // Near-infrared models
- // Extended operating temperature range: -20° C to +65° C (ambient)

Prosilica GT



Camera model	Sensor	Mega-pixels	Resolution	Sensor format	Shutter mode	Max. frame rate in fps	Pixel size in µm	Standard mount	Mono/color/mono NIR/color NIR
GT1290	Sony ICX445 CCD	1.2	1280 × 960	Type 1/3	Global	33.3	3.75 × 3.75	C-Mount	•/•/-/-
GT1380	Sony ICX285 CCD	1.4	1360 × 1024	Type 2/3	Global	30.5	6.45 × 6.45	C-Mount	•/•/-/-
GT1600	Sony ICX274 CCD	2.0	1620 × 1220	Type 1/1.8	Global	25.8	4.44 × 4.44	C-Mount	•/•/-/-
GT1920	Sony ICX674 CCD	2.8	1936 × 1456	Type 2/3	Global	40.7	4.54 × 4.54	C-Mount	•/•/-/-
GT1930	Sony IMX174 CMOS	2.4	1936 × 1216	Type 1/1.2	Global	50.8	5.86 × 5.86	C-Mount	•/•/-/-
GT2000	ams CMV2000 CMOS	2.2	2048 × 1088	Type 2/3	Global	53.7	5.5 × 5.5	C-Mount	•/•/•/-
GT2050	ams CMV4000 CMOS	4.2	2048 × 2048	Type 1	Global	28.6	5.5 × 5.5	C-Mount	•/•/•/-
GT2450	Sony ICX625 CCD	5.0	2448 × 2050	Type 2/3	Global	15	3.45 × 3.45	C-Mount	•/•/-/-
GT2460	Sony IMX264 CMOS	5.1	2464 × 2056	Type 2/3	Global	23.7	3.45 × 3.45	C-Mount	•/•/-/-
GT2750	Sony ICX694 CCD	6.1	2750 × 2200	Type 1	Global	19.8	4.54 × 4.54	C-Mount	•/•/-/-
GT3400	Sony ICX814 CCD	9.2	3384 × 2704	Type 1	Global	13.2	3.69 × 3.69	C-Mount	•/•/-/-

Prosilica GT Large Format



Camera model	Sensor	Mega-pixels	Resolution	Sensor format	Shutter mode	Max. frame rate in fps	Pixel size in µm	Standard mount	Mono/color/mono NIR/color NIR
GT1930L	Sony IMX174 CMOS	2.4	1936 × 1216	Type 1/1.2	Global	50.8	5.86 × 5.86	EF-Mount PA	•/•/-/-
GT4400	Sony IMX367 CMOS	19.6	4432 × 4436	Type 4/3	Global	6.12	3.45 × 3.45	F-Mount	•/•/-/-
GT5120	ON Semi PYTHON 25K CMOS	26.2	5120 × 5120	Type APS-H	Global	4.59	4.5 × 4.5	F-Mount	•/-/•/-
GT5400	Sony IMX387 CMOS	16.8	5472 × 3084	Type 4/3	Global	7.14	3.45 × 3.45	F-Mount	•/•/-/-
GT6400	Sony IMX342 CMOS	31.4	6480 × 4860	Type APS-C	Global	3.82	3.45 × 3.45	F-Mount	•/•/-/-

Modular concept Prosilica GT

- // CS-Mount / F-Mount / Birger EF-Mount / M42-Mount
- // Various IR cut / pass filters and protection glass

Modular concept Prosilica GT Large Format Housing

- // F-Mount / F-Mount PA / EF-Mount PA / M42-Mount / M42-Mount PA / M58-Mount / M58-Mount PA / C-Mount (selected models) / TFL-Mount (selected models)
- // Various IR cut filters and protection glass // Removed sensor cover glass (RCG)

Dimensions (including connectors and default mount) L × W × H in mm

- // Prosilica GT: 86 × 53.3 × 33
- // Prosilica GT Large Format: 96 × 66 × 53.3



Prosilica GT



Prosilica GT Large Format

// BONITO PRO

High-speed imaging



Bonito PRO is Allied Vision's high-bandwidth camera series with a CoaXPress interface. Equipped with four DIN 1.0/2.3 connectors, the camera is capable of transmitting 25 Gbps via four CXP-6 high-speed connections. Bonito PRO boasts a rugged, fan-less housing design and powerful feature set – making it the ideal choice for high-definition imaging applications that require high throughput, robustness, and system design-in flexibility.

Key facts

- // CoaXPress interface
- // 26.2 megapixel resolution
- // Global Shutter sensor
- // 80 frames per second at full resolution
- // Near-infrared model
- // Extended operating temperature range: -20° C to +70° C (housing)

Bonito PRO



Camera model	Sensor	Mega-pixels	Resolution	Sensor format	Shutter mode	Max. frame rate in fps	Pixel size in μm	Standard mount	Mono/color/mono NIR/color NIR
X-2620	ON Semi PYTHON 25K CMOS	26.2	5120 x 5120	Type APS-H	Global	79.7	4.5 x 4.5	F-Mount	•/•/•/-

Modular concept

- // F-Mount PA / EF-Mount PA / M42-Mount / M42-Mount PA / M58-Mount / M58-Mount PA / various optical filters
- // Various IR cut filters and protection glass // Removed sensor cover glass (RCG)

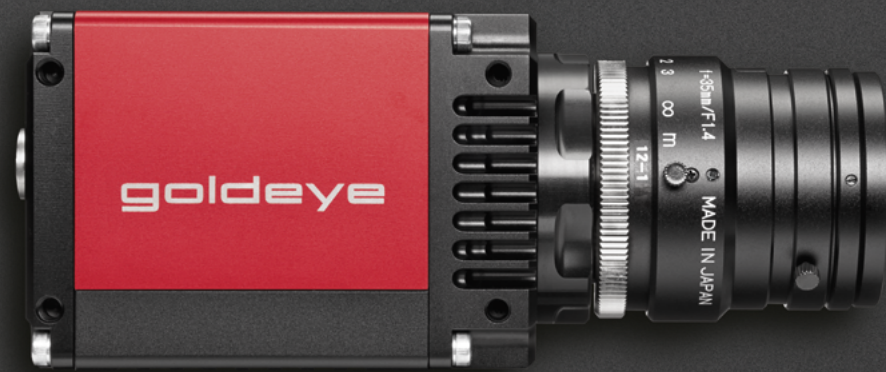
Dimensions (including connectors and standard mount) L x W x H in mm

- // 114.9 x 70 x 70



// 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. Experience an eased system integration supported by features like Power over Ethernet enabling single cable solutions, comprehensive I/O control functionality, and multiple mounting options. Moreover, a standardized GigE Vision or Camera Link interface and GenICam-like feature control provide you a plug & play feeling when utilizing these robust, high-quality SWIR cameras in imaging applications beyond the visible spectrum.

Key facts

- // Camera Link or GigE Vision interface
- // Resolution up to 1.3 megapixels (QVGA, VGA, and SXGA)
- // Various InGaAs sensor technologies supported, including visible SWIR and eXtended SWIR
- // Up to 344 frames per second at full resolution
- // Extended operating temperature range: -20° C to +55° C (housing)

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. $\Delta T = 20$ 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. $\Delta T = 25$ 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. $\Delta T = 30$ 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. $\Delta T = 25$ 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. $\Delta T = 25$ 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. $\Delta T = 25$ K)	Global	1.3	1280 x 1024	94	5 x 5	400 to 1700	C-Mount	IEEE 802.3af (PoE)

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. $\Delta T = 30$ 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. $\Delta T = 60$ K)	Global	0.1	320 x 256	344	30 x 30	1100 to 1900	C-Mount	IEEE 802.3at (PoE+)
G-008 XSWIR 2.2 TEC2	InGaAs FPA with TEC2 cooling (Min. $\Delta T = 60$ K)	Global	0.1	320 x 256	344	30 x 30	1200 to 2200	C-Mount	IEEE 802.3at (PoE+)
G/CL-032 Cool TEC2	InGaAs FPA with TEC2 cooling (Min. $\Delta T = 60$ K)	Global	0.3	636 x 508	100	25 x 25	900 to 1700	C-Mount	IEEE 802.3at (PoE+)
G/CL-034 XSWIR 1.9 TEC2	Extended InGaAs FPA with TEC2 (Min. $\Delta T = 60$ K)	Global	0.3	636 x 508	303	15 x 15	1100 to 1900	C-Mount	IEEE 802.3at (PoE+)
G/CL-034 XSWIR 2.2 TEC2	Extended InGaAs FPA with TEC2 (Min. $\Delta T = 60$ K)	Global	0.3	636 x 508	303	15 x 15	1200 to 2200	C-Mount	IEEE 802.3at (PoE+)

Modular concept

- // IR band-pass filter
- // F-Mount / M42-Mount
- // Silver design

Dimensions (including connectors and standard mount) L x W x H in mm

- // Standard: 93.2 x 55 x 55
- // Cool: 105.8 x 80 x 80 | XSWIR: 105 x 80 x 80



Goldeye G/CL

Goldeye G/CL Cool and XSWIR

NEW

// 3D STEREO VISION TECHNOLOGY

Nerian Ruby 3D depth camera



The 3D depth camera Nerian Ruby combines 3D stereo cameras and image processing system in one device. It enables extremely fast & detailed real-time 3D image processing with up to 60 fps, precise 3D measurements on almost any surface thanks to an integrated pattern projector, and a direct transmission of fully computed 3D data via Ethernet, which frees additional processing power on the host computer or GPU.

Key facts

- // Measuring range from 33 cm
- // 62° FoV
- // Inertial sensor and laser pattern projector
- // Sensor format: monochrome and color
- // Max. resolution: 1.5 MP
- // Max. disparity: 256 pixels
- // Max. frame rate: 60 fps

// NERIAN SCARLET 3D DEPTH CAMERA



Scarlet combines 3D stereo cameras and image processing in one device. Whether for static environments, or hard and critical real-time applications in dynamic environments, our Scarlet 3D depth camera provides you with exactly the image and depth data you need for your machine vision application.

// NERIAN SCENESCAN PRO



SceneScan Pro is Nerian's latest innovation for 3D depth perception using stereo vision. Using a powerful FPGA, SceneScan processes the image data from two cameras to create a depth map or 3D point cloud at a very high processing rate.

// NERIAN SCENESCAN



SceneScan is a cost optimized version for 3D depth perception applications with lower requirements

// NERIAN KARMIN3



Karmin3 is our stereo camera with two 3-megapixel image sensors. It is specially designed for easy use with our SceneScan stereo vision sensor. In combination with SceneScan, Karmin3 becomes a full-fledged 3D depth camera, which enables highly accurate distance.

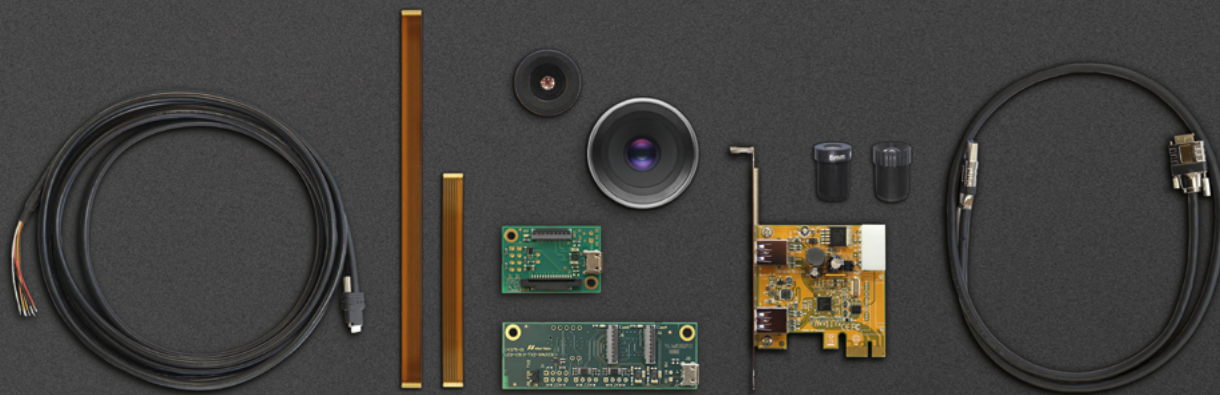
Features comparison

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

Image optimization features	Alvium C/FP3/GM2 V4L2	Alvium 1800 C/FP3/GM2 Genicam for CSI-2	Alvium U	Alvium G1	Alvium G5	Mako					Manta				Prosilica GT					Prosilica GT LF			Bonito PRO	Goldeye	
						G-032, G-125	G-131, G-192, G-503	G-223, G-419	G-040, G-158, G-234, G-319, G-507, G-511, G-811, G-1242	G-508	G-032	G-223, G-419	G-040, G-158, G-235, G-319, G-507, G-895, G-1236	other models	GT1290, GT1380, GT1600	GT1920, GT1930, GT2460	GT2000, GT2050	GT2450	GT2750, GT3400	GT1930L	GT5120	GT4400, GT5400, GT6400	X-2620	G	CL
Defect pixel correction	✓	✓	✓	✓	✓	-	✓	✓	-	-	✓	-	-	-	-	✓	-	-	-	✓	✓	✓	✓	✓	✓
Fixed Pattern Noise Correction (FPNC)	✓	✓ ⁽¹⁾	✓ ⁽¹⁾	✓ ⁽¹⁾	✓ ⁽¹⁾	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	✓	✓	-	-	
Region of interest (ROI)	✓	✓ ⁽²⁾	✓ ⁽²⁾	✓ ⁽²⁾	✓ ⁽²⁾	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓ ⁽²⁾	✓	✓	
Binning	-	✓	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
Decimation	-	-	-	-	-	-	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-
Auto gain	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-
Auto exposure	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Auto white balance	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	-	-	
Look-up tables (LUT)	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gamma correction	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	
Hue, saturation, color correction	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	-	-	
Reverse X/Y	✓	✓	✓	✓	✓	-	✓	-	✓	✓	-	✓	✓	X only	-	✓	✓	X only	✓	✓	-	✓	-	-	
Camera control features	Alvium C V4L2	Alvium C Genicam for CSI-2	Alvium U	Alvium G1	Alvium G5	Mako					Manta				Prosilica GT					Prosilica GT LF			Bonito PRO	Goldeye	
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)	-	-	-	✓	✓	-	-	✓	✓	✓	-	✓	✓	✓ ⁽¹⁾	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-
Action commands	-	-	-	✓	✓	-	-	✓	✓	✓	-	✓	✓	✓ ⁽¹⁾	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-
Sequencer ⁽⁴⁾	-	-	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Storable user sets	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature monitoring	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓ ⁽¹⁾	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Auto-Iris:	Video-Iris	-	-	-	-	-	-	-	-	-	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-
	DC-Iris P-Iris	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	

// ALLIED VISION CAMERA ACCESSORIES

Tested for more performance and reliability



Allied Vision offers a wide range of approved computer vision accessories, including lenses, interface cables and cards, hubs and repeaters, trigger, I/O and power cables, power supplies, tripod adapters, and adapter boards.

These have been extensively tested by our engineers to ensure complete compatibility with our cameras. As a result, we can ensure that they provide the best possible performance, image quality, and reliability for your application. Not sure which accessories are best for your Allied Vision camera or application? Our friendly sales team would love to advise you. Call them now!

All accessories at a glance

- // Lenses
- // IP housings & heat sinks
- // Interface connections
- // Interface cards
- // Trigger, I/O & Power Cable Selector
- // Hubs & repeaters
- // Tripod adapters
- // Power supplies

// SOFTWARE PORTFOLIO

Discover our software

Vimba X

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 C, C++, and Python APIs. You can port your source code from Windows to Linux or cross-compile from a Linux PC to an embedded system.

Vimba

vimba

Vimba is our well established SDK for Allied Vision cameras. Just like Vimba X, it runs on Windows, Linux, and Linux ARM. Additionally to the C, C++, and Python APIs, a .NET API is provided.

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)
- // Texas Instruments EdgeAI Demo with Alvium USB cameras
- // gst-vimbsrc and gst-vmbsrc, plugins to access Vimba and Vimba X from GStreamer pipelines
- ... and more



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