

Allied Vision introduces Alvium CSI-2 cameras with Sony Pregius CMOS global shutter sensors

At Embedded World in Nuremberg, Germany, Allied Vision presents CSI-2 cameras with high-performance IMX image sensors from Sony

Stadtroda, Nuremberg, Germany, February 18, 2020 - In the Embedded Vision Area at Embedded World in Nuremberg (**Hall 2, Stand 2-540**) from February 25 to 27, 2020, Allied Vision will exhibit new models of its innovative camera series for industrial embedded vision. With a total of six new MIPI CSI-2 cameras from its Alvium 1800 camera series equipped with Sony's Pregius CMOS Global Shutter Sensors, the camera manufacturer is perfecting the combination of the performance demands of machine vision applications and the advantages of embedded systems.

Cross-over camera

The Alvium 1800 series is a cross-over camera. It gives embedded system developers access to the performance and durability of a machine vision camera. Equipped with high-performance Sony Pregius CMOS global shutter sensors, it offers high frame rates, high sensitivity, and excellent image quality. With industry-grade hardware, a large selection of integrated image correction functions and high-precision triggering, it meets all the requirements of industrial image processing.

It is also based on Allied Vision's Alvium platform, which has been optimized for embedded vision systems. This allows for an ultra-compact, lightweight design and is available as a single-board module or with an open housing for easy integration into small systems. Their cost-optimized platform design offers an unprecedented price/performance ratio.

Alvium CSI-2 cameras with Sony IMX sensors at a glance

Camera model	1800 C-040	1800 C-158	1800 C-319	1800 C-507	1800 C-1236	1800 C-2050
Sensor	Sony IMX287	Sony IMX273	Sony IMX265	Sony IMX264	Sony IMX304	Sony IMX183
Resolution	728 × 544; 0.4 MP	1456 × 1088; 1.6 MP	2064 × 1544; 3.2 MP	2464 × 2056; 5.1 MP	4112 × 3008; 12.4 MP	5496 × 3672; 20.5 MP
Pixel size	6.9 μm × 6.9 μm	3.45 μm × 3.45 μm	3.45 μm × 3.45 μm	3.45 μm × 3.45 μm	3.45 μm × 3.45 μm	2.4 μm × 2.4 μm
Sensor size	Type 1/2.9	Type 1/2.9	Type 1/1.8	Type 2/3	Type 1.1	Type 1
Shutter	Global shutter	Global shutter	Global shutter	Global shutter	Global shutter	Rolling shutter
Frame rate	292 fps	154 fps	53 fps	34 fps	22 fps	25 fps

All models are also available with USB3 interface. Together with Allied Vision's Vimba Suite, the USB cameras can be easily integrated into various embedded systems.

Embedded Ecosystem

To make integration into embedded systems easy, Allied Vision offers numerous CSI-2 drivers on [GitHub](#) as well as its own adapter boards for various Systems on Module (SoMs) and carrier boards. At the booth, Allied Vision will show a selection of Embedded hosts (e.g. NVIDIA Jetson Nano, NXP i.MX8 QM, Toradex Ixora carrier, antmicro's Baseboard) and development boards (e.g. Google Coral Development Board) combined with various Alvium models and adapter boards in action.

Artificial Intelligence

Another highlight at the Allied Vision booth will be live demonstrations of deep learning applications (anomaly detection and smart triggering). Both Alvium cameras with CSI-2 and USB3 interfaces and Allied Vision's compact Mako G camera with GigE Vision interface will be demonstrated in conjunction with NVIDIA's Jetson Nano and NVIDIA's Jetson Xavier.

Allied Vision at Embedded World

Embedded World Exhibition

- Tuesday, February 25 to Thursday, February 27, 2020
- Messezentrum Nürnberg
- Hall 2, Embedded Vision Area, Booth #2-540

Embedded World Conference

- Thursday, Februar 27, 2020, 11:30 am
- Presentation: Image processing capabilities on embedded platforms, their APIs and required resources
- Speaker: Sebastian Günther, Allied Vision

Allied Vision company profile

For more than 30 years, Allied Vision has been helping people to reach their imaging goals. Allied Vision supplies camera technology and image capture solutions for industrial inspection, medical and scientific imaging, traffic monitoring and many more application areas in digital imaging. With a deep understanding of customers' needs, Allied Vision finds individual solutions for every application, a practice which has made Allied Vision one of the leading camera manufacturers worldwide in the machine vision market.

The company has nine locations in Germany, Canada, the United States, Singapore and China and is represented by a network of sales partners in over 30 countries. Allied Vision is member of the TKH Group.

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