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| **Press release** | **September 9, 2021** |
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Allied Vision adds more industrial-grade models for embedded applications to Alvium CSI-2 camera series

Now available in Allied Vision’s Alvium CSI-2 camera series: 4th generation Sony IMX541 and IMX542 Pregius S sensors and NIR enhanced OnSemi AR0522 sensor

*Stadtroda, Germany, September 9, 2021* – With the Alvium 1800 C-2040 and Alvium 1800 C-1620 Allied Vision adds two high-performance Sony fourth generation IMX back-illuminated CMOS sensors with Pregius S global shutter technology to its Alvium Camera Series.   
The Alvium 1800 CSI-2 cameras combine a compact form factor with large, high-resolution sensors to offer the highest possible resolutions in such a small housing.

**CSI-2 cameras with high quality Sony sensors**The **Alvium 1800 C-2040** combines a square sensor format with a C-mount in a sugar cube housing and is an ideal choice for microscopy applications. It features the 20.4 MP Sony IMX541 sensor enabling a frame rate of 24 fps (8 bit). The **Alvium 1800 C-1620** is equipped with the IMX542 sensor with a 16:9 wide screen format. It offers almost twice the resolution of the comparable 2nd generation Sony IMX sensor, the IMX267, making it especially attractive for ITS applications demanding high resolution images.

The two sensors feature an improved back side illuminated pixel architecture that can capture light more effectively, which leads to improved quantum efficiency (QE) compared to 2nd and 3rd generation IMX sensors. High quantum efficiency, lower readout noise and higher spatial resolution result in excellent image quality with high dynamic range. Because of the decreased pixel size of 2.74µm higher pixel densities (i.e. resolutions) for the same optical format are possible.

**Near Infrared (NIR) enhanced CSI-2 camera**In addition to the two cameras with Sony 4th generation IMX sensors Allied Vision has released the NIR-enhanced Alvium 1500 C-501 NIR camera, available as both color and monochrome. It is equipped with OnSemi’s 5MP rolling shutter sensor AR0522 which has good performance in the NIR region of the spectrum (i.e., above 750nm wavelength). It, therefore, performs very well in low light scenarios (e.g., at dusk or dawn).

**New Alvium CSI-2 models at a glance**

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| **Model** | **Alvium 1800 C-1620** | **Alvium 1800 C-2040** | **Alvium 1500 C-501 NIR** |
| Sensor | Sony IMX542 | Sony IMX541 | OnSemi AR0522 |
| Sensor type | CMOS Global shutter | CMOS Global shutter | CMOS Rolling shutter |
| Sensor size | Type 1.1 | Type 1.1 | Type 1/2.5 |
| Pixel size | 2.74 μm × 2.74 μm | 2.74 μm × 2.74 μm | 2.2 μm × 2.2 μm |
| Resolution  (H × V) | 16.2 MP 5328 × 3040 | 20.4 MP 4512 × 4512 | 5.0 MP 2592 × 1944 |
| Aspect ratio | 16:9 | 1:1 | 4:3 |
| Frame rate | 30 fps | 24 fps | 68 fps |

All cameras will be available with different housing variants (closed housing, open housing, bare board) as well as different lens mount options.

**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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