

XIMEA Ships New Camera Models with Sony Pregius S CMOS Sensors - USB3 and PCIe Cameras with IMX545, IMX546, IMX547

XIMEA, the innovator of small-size, high-performance cameras, has enhanced the portfolio with models using the new, 4th generation Sony CMOS Pregius™ S sensors.

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/EINPresswire.com/ -- XIMEA, the

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performance cameras, has [enhanced](#)

[the current portfolio](#) with models using the new, outstanding Sony CMOS Pregius™ S sensors.



Following the successful market launch of the first Pregius S-based cameras in 2020, XIMEA is continuing the series with camera models based [on IMX545](#), IMX546, IMX547 and other sensors from the Sony 4th generation Pregius S family.

This generation of Sony CMOS sensors utilizes a small pixel size of 2.74 µm in combination with BSI - backside illumination technology.

The small pixel facilitates the use of lower-cost optics and helps to keep the system dimensions very compact by contributing to closer proximity for multi-camera setups.

The miniature size does not mean a compromise in the imaging quality which stays remarkable judging by any kind of EMVA 1288 parameters.

As with previous generations, the 4th generation continues to offer high quantum efficiency as well as lower noise and noteworthy dynamic range above 70 dB.

Additionally, all sensors offer global shutter readout making them ideal not only for scientific applications, but also for systems where objects move at a higher speed.

Another important factor is the availability of high-speed version equivalents for each resolution, namely the IMX535, IMX536, IMX537.

The higher speed models do not only bring additional considerable improvement in frame rate, but also interesting feature set not available for standard sensors.

This is a continuous Sony trend where standard models are cheaper with the same image quality

whereas high speed ones are fast and offer complimentary functionality.

Among the exciting features is the dual ADC of low and high gain modes, the fusion of which produces HDR images as a result.

The processing of dual ADC is done on the sensor side, plus XIMEA added the off-sensor FPGA merging that results in the linear response curve.

Further new features include the ultra-short interval between two shutters, exposure time monitoring and an improved on-sensor thermometer.

To leverage the miniature size of Sony sensors, XIMEA has integrated them into the smallest form factor measuring only 26 x 26 x 33 mm and weighing 38 grams.

This is to date the most compact size for cameras with Sony Pregius S 4th generation supplied with 10 Gbit/s bandwidth.

The small pixel size of 2.74 μm and thus sensor sizes from 1/1.8" to 1/1.1" help with the choice of C-mount lenses, improving the cost attractivity and allowing a smaller footprint for mobility. Power consumption is as low as 3 Watts which allows the cameras to be bus powered directly over the cable.

In regard to cables - the sensors utilize both USB3 and PCIe interfaces to offer simplicity and excellent multiple camera system synchronization.

To summarize, the sensor models joining the XIMEA portfolio with USB3 or PCIe interface provide the following parameters:

5.1 Mpix, Sony IMX547, color and monochrome, 2472 x 2064, 1/1.8"

5.1 Mpix, Sony IMX537, color and monochrome, 2472 x 2064, 1/1.8" with HDR and other features

8.1 Mpix, Sony IMX546, color and monochrome, 2856 x 2848, 2/3"

8.1 Mpix, Sony IMX536, color and monochrome, 2856 x 2848, 2/3" with HDR and other features

12.4 Mpix, Sony IMX545, color and monochrome, 4128 x 3008, 1/1.1"

12.4 Mpix, Sony IMX535, color and monochrome, 4128 x 3008, 1/1.1" with HDR and other features

Impressive image quality, unbeatable form factor, attractive price, modularity and customizability make these cameras stand out and they are worth checking out.

About XIMEA

For more than 20 years XIMEA has developed, manufactured, and sold standard and OEM cameras for machine vision applications in motion control, assembly, robotics, industrial inspection and security, as well as scientific grade cameras for life science and microscopy. The main distinction is based on the flexibility of development and production processes and the

extremely robust way the cameras are built while still providing highest speed and power. Drawing on more than two decades of experience in the industry, XIMEA offer consists of state-of-the-art cameras with FireWire, USB 2.0, USB 3.0, and smart cameras with embedded PC and GigE interface.

Learn more about XIMEA at <https://www.ximea.com>

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