GSPRINT5514 a new High Sensitivity 14MP BSI Global Shutter CIS targeting high speed machine vision and >4k video.
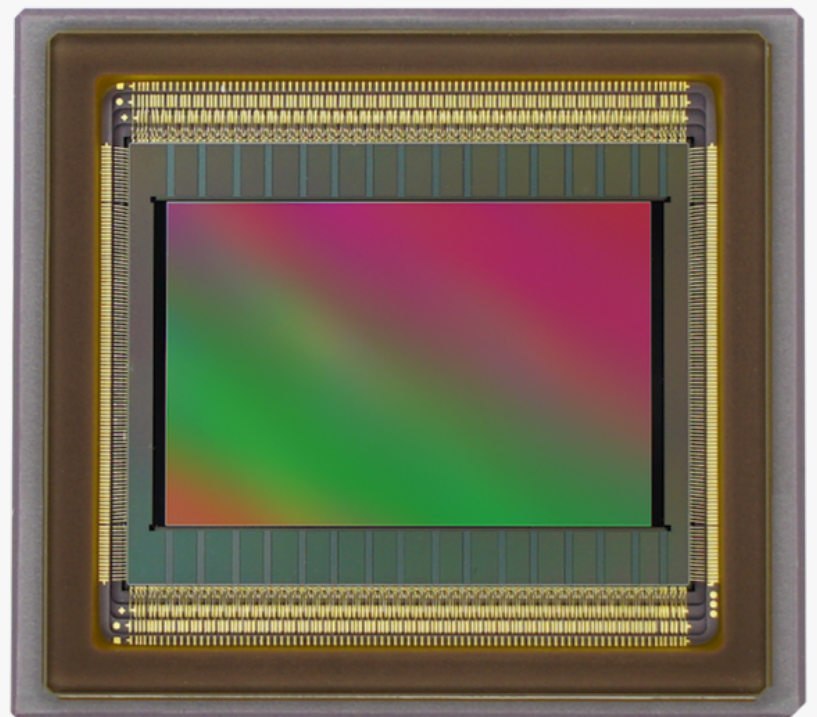
Gpixel announces GSPRINT5514BSI, the fifth sensor in the popular GSPRINT series of high-speed global shutter CMOS image sensors.

CHANGCHUN, CHINA, November 19, 2024 /EINPresswire.com/ -- Gpixel announces GSPRINT5514BSI, the fifth sensor in the popular GSPRINT series of high-speed global shutter CMOS image sensors. The sensor is pin compatible with GSPRINT4510 and GSPRINT4521 for easy design into existing camera platforms.

GSPRINT5514BSI

GSPRINT5514BSI features 4608 x 3072 pixels, each 5.5 μm square – a 4/3 aspect ratio 4k sensor compatible with APS-C optics. With 10-bit output GSPRINT5514BSI achieves 670 frames per second. In 12-bit mode the sensor outputs 350 fps.

Using backside illumination technology, the sensor achieves 86% quantum efficiency at 510 nm and 17% at 200 nm for UV applications. The sensor offers dual gain HDR readout, maximizing 15 ke- full well capacity with a minimum < 2.0 e- noise to achieve an outstanding 78.3 dB of dynamic range. Analog 1x2 binning increases the full well capacity to 30 ke-.
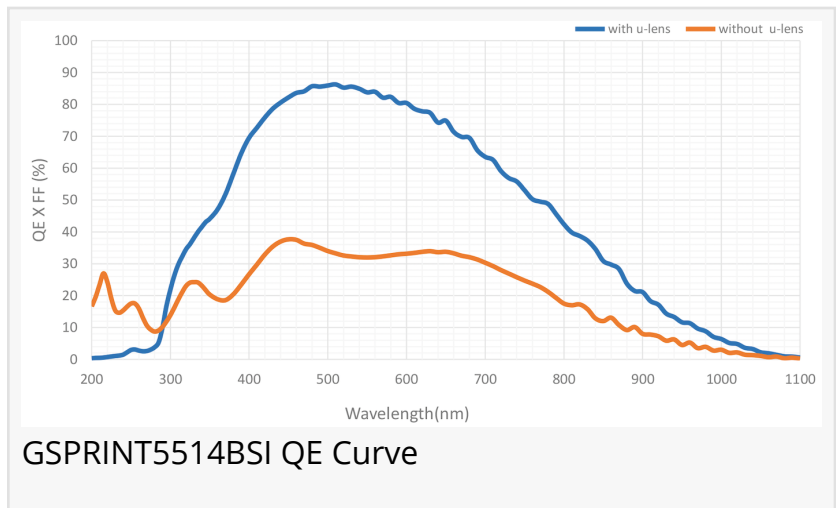
Up to 8 vertically oriented regions of interest can be defined to operate the sensor at increased frame rates. The image data is output via 84 sub-LVDS channels at 1.2 Gbps. For applications in

which the maximum frame rate is not required, multiplexing modes are available to reduce the number out output channels by any multiple of two.

The sensor features on-chip sequencer, SPI control, PLL, and both analog and digital temperature sensors.

GSPRINT5514BSI QE Curve

"The GSPRINT family of image sensors have enabled new use cases in high-speed machine vision and offer unprecedented value to the 4k video market," says Wim Wuyts, Gpixel's Chief Commercial Officer. "We will continue to expand this product line to meet the needs of customers across the growing diversity of applications demanding high speed, excellent image quality, and a high dynamic range. From a technology perspective we are proud to extend our GSPRINT series with the second BSI Global Shutter product, opening a wavelength extension into DUV."

The GSPRINT5514BSI is available in monochrome or color variants with either sealed or removable cover glass and is assembled in a 454-pin μPGA package.
Samples and evaluation systems are available now.
For more information, please contact Gpixel at info@gpixel.com or visit www.gpixel.com.

About Gpixel
Gpixel is an international company providing high-end customized and off the-shelf CMOS image sensor solutions for industrial, medical, scientific, and professional imaging applications. Gpixel's standard products include the GMAX and GSPRINT global shutter, fast frame rate sensors, the GSENSE high-end scientific CMOS image sensor series, the GLUX series of high sensitivity sensors for surveillance, the GL series of line scan imagers, the GLT series of TDI imagers, the GLR series of sensors with rectangular pixels for displacement sensors and spectroscopy, and the GCINE series of sensors for professional video and photography. Gpixel provides a broad portfolio of products leveraging the latest technologies to meet the ever-growing demands of the professional imaging market.

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