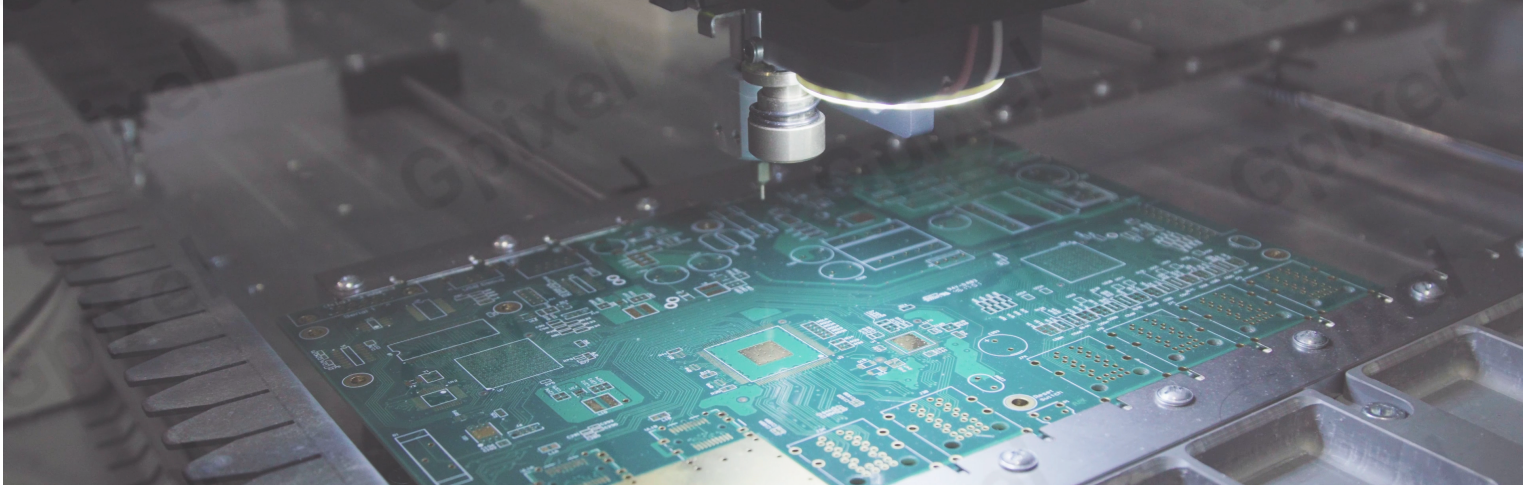
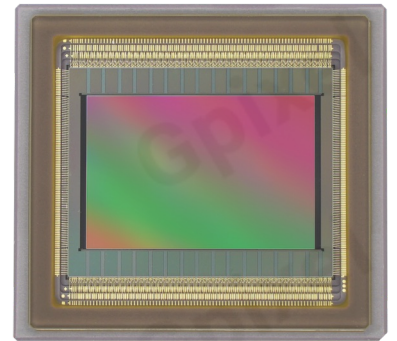


GSPRINT5514BSI Product Flyer



14MP BSI HIGH SPEED IMAGE SENSOR

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⁻. 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 of output channels by any multiple of two. 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.



Key Features

- Back Side Illuminated (BSI) Global Shutter pixels
- High Sensitivity
- High Speed: up to 670 fps @ 10 bit
- 86% QE @ 510nm

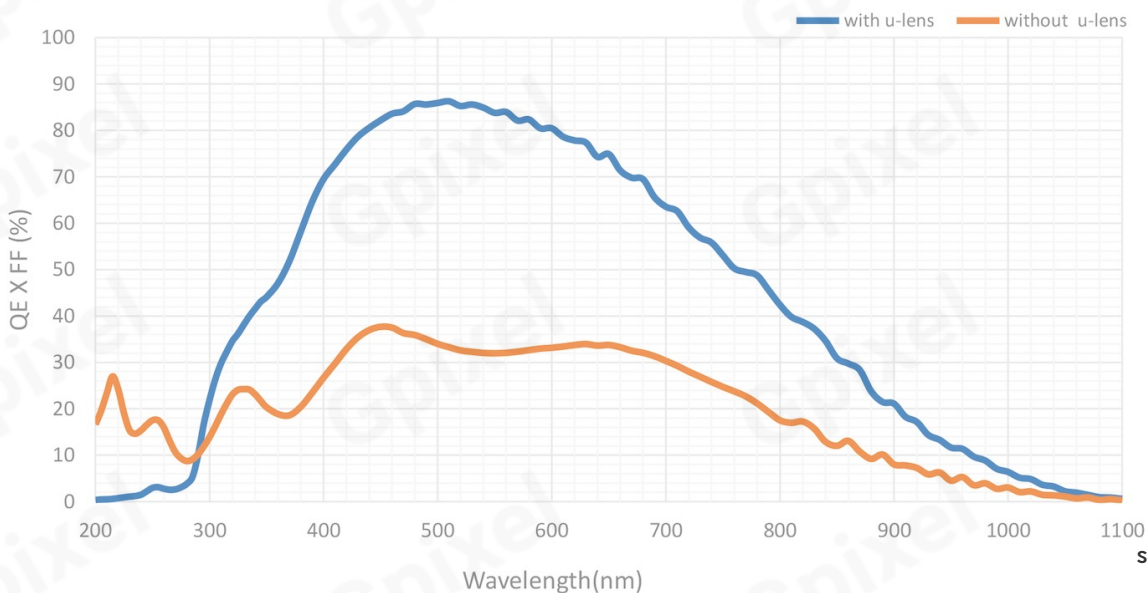
Applications

- PCB Inspection (AOI)
- High Speed Imaging
- Motion Capture
- Video
- UV Imaging

Sensor Specifications

Resolution	4608 (H) x 3072 (V)	Optical format	APS (30.5 mm diagonal)
Pixel size	5.5 μm x 5.5 μm	Photo-sensitive area	25.3 mm x 16.9 mm
Shutter type	Global shutter	Quantum efficiency	STD: 86% @ 510 nm UV: 17% @ 200 nm
Full well capacity	15 ke ⁻ 30 ke ⁻ @ binned	Temporal noise	3.0 e ⁻ @ 10 bit, 1.9 e ⁻ @ 12 bit < 2e ⁻ @ 12 bit HDR
Dark Current	83 e ⁻ /pix/sec @ 60°C	Dynamic range	62.0 dB @ 10 bit, 67.0 dB @ 12 bit 78.3 dB @ 12 bit HDR
Max. Frame rate	670 fps @ 10 bit, 350 fps @ 12 bit 80 fps @ HDR dual 12-bit	Output format	84 ch Sub-LVDS at 1.2 Gbps
Data rate	Max 94.84 Gbps	Channel multiplexing	any multiple of 4
Chroma	Mono, Color, Mono without ulens	Power consumption	4.7 W @ 10 bit, 4.5W @ 12 bit 3.9 W @ 12 bit HDR
I/O voltage	3.3 V (analog), 1.8 V (I/O), 1.2 V (digital)	Package	μ PGA 454 pins (42 mm x 38 mm)

Quantum Efficiency



Scan me for contact information:

