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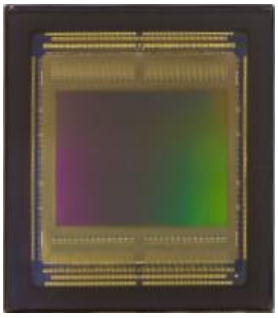
LAN5214

The LUXIMA™ LAN5214 image sensor is a 5.2 Megapixel 1,443 FPS BSI Global Shutter CMOS Digital Sensor for applications in the wafer inspection, 2D and 3D scanning, intraoral scanning, dental applications, motion analysis, laser triangulation, line profiling, and more. It allows ease of integration and lower system noise with on-chip 10 bit ADC, and 64 parallel SLVS outputs. The sensor supports 8 simultaneous Region-Of-Interest readouts with flexible window positions. The user can obtain faster frame rates through X, Y windowing. Color and monochrome options are offered in a 395 pin LGA package with a footprint of 26.2 mm × 30.2 mm.



Optical format	4/3”
Active resolution	2560 × 2048 pixels
Pixel	6.5 um pitch PPD BSI global shutter pixel
Full well	15 Ke-
Read noise	10 e-
Responsivity	15 V/lux-sec @ 525nm without color filter
Frame rate	**Resolution** — **Frame Rate** — **Bit Depth** 2560 × 2048 — 1,443 FPS — 10b 1920 x 1080 — 3,622 FPS — 10b 2560 x 2048 — 1,683 FPS — 8b 1920 x 1080 — 4,222 FPS — 8b
Region of interest	Windowing and up to 8 simultaneous ROI’s are supported
Binning	2x2, 1x2, 2x1
Analog to digital converter	10b on chip ADC
Analog gain options	1x – 4x
Clock rate	120 MHz at 10b, 140 MHz at 8b
Number of data channels	64 SLVS data channels Multiplexer mode: 32 SLVS or 16 SLVS data channels
Output data rate	**Bit Depth** — **Clock Rate** 10b — 120MHz — 1.2 Gbps 8b — 140MHz — 1.12 Gbps
Power supply	3.3V Analog, 1.5V Analog & 1.5V Digital
Power consumption	2.5W Typical Lower power with Multiplexer Mode
Communication interface	SPI and I2C
Package type	395 pin LGA in a footprint of 26.2 mm × 30.2 mm
Color filter	Color or Monochrome

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