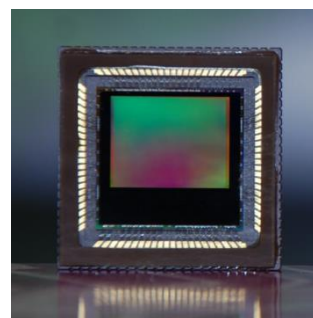


LUX1310S

The LUXIMA™ LUX1310S image sensor is a 1.3 Megapixel 268 FPS Global Shutter CMOS Digital Sensor developed for the barcode scanning, sports camera, motion analysis, automation, dental scanning, industrial and biomedical markets. It allows ease of integration and lower system noise with on-chip 12 bit ADC and 4 parallel LVDS 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 an 88 ceramic LCC package with a small footprint of 16.9 mm × 16.9 mm.



Optical format	2/3"
Active resolution	1280 × 1024 pixels
Pixel	6.6 um pitch PPD global shutter pixel
Full well	17,000 e-
Read noise	25 e-
Responsivity	9.6 V/Lux-s @ 525 nm typical without color filter
Conversion gain	73 uV/e-
Dynamic range	56.7 dB
High dynamic range mode	Dual-slope and Triple-slope response supported
Frame rate	268 FPS @ 1280 × 1024 1,045 FPS @ 640 × 512 4,164 FPS @ 256 × 256 32,943 FPS @ 1280 × 8 Faster frame rates with smaller X, Y window size
Region of interest	Windowing and up to 8 simultaneous ROI's are supported
Binning	2 × 2
Analog to digital converter	12 bit
Analog gain options	1x – 16x
Clock rate	25 MHz - 90 MHz (90 MHz typical @ 267 FPS)
Data output	4 LVDS ports Multiplex Mode (2 LVDS ports) 300 Mbps per port @ 25 MHz – 1,080 Mbps per port @ 90 MHz
Power supply	3.3V Analog, 1.8V Analog, 1.8V Digital
Power consumption	803 mW @ 268 FPS Full Resolution
Package type	88 Ceramic LCC in a small footprint of 16.9 mm × 16.9 mm
Color filter	Color RGB or Monochrome