

LUX330

The LUXIMA™ LUX330 image sensor is a 2/3" 640 × 512 @ 4,168 FPS Global Shutter CMOS Digital Sensor developed for the high speed machine vision, barcode scanning, factory automation, sports motion analysis and industrial markets. It has high sensitivity of 19.2 V/Lux-sec with a pixel size of 13.2 um. It allows ease of integration and lower system noise with on-chip 12 bit ADC and 16 parallel LVDS outputs. The sensor supports 8 simultaneous Region-Of-Interest readouts. Faster frame rates can be obtained through X, Y windowing. Color and monochrome options are offered in an 88 ceramic LCC package with a small footprint of 16.9 mm x 16.9 mm.



Optical format	2/3"
Active resolution	640 × 512 pixels
Pixel	13.2 um pitch PPD global shutter pixel
Full well	34,800 e-
Read noise	27 e-
Responsivity	19.2 V/Lux-s @ 525 nm
Conversion gain	75 uV/e-
Dynamic range	62.2 dB
High dynamic range mode	Dual-slope and Triple-slope response supported
Frame rate	4,168 FPS @ 640 × 512 4,443 FPS @ 640 × 480 8,850 FPS @ 320 × 240 Faster frame rates with smaller X, Y window size
Region of interest	Windowing and up to 8 simultaneous ROI's are supported
Analog to digital converter	12 bit
Analog gain options	1x – 16x
Clock rate	90 MHz typical @ 4,168 FPS
Data output	16 LVDS ports Multiplex Mode (8 LVDS, 4 LVDS, 2 LVDS ports) 300 Mbps per port @ 25 MHz – 1,080 Mbps per port @ 90 MHz
Power supply	3.3V Analog, 1.9V Analog, 1.8V Digital
Power consumption	2.194W @ 4,168 FPS Full Resolution Adjustable with lower frame rates, e.g. 670 mW @ 1,080 FPS
Package type	88 Ceramic LCC in a small footprint of 16.9 mm × 16.9 mm
Color filter	Color or Monochrome