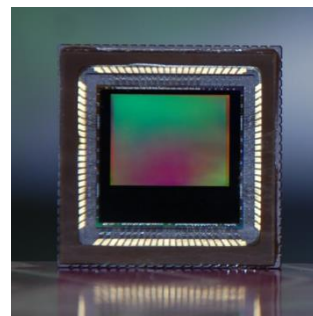


LUX1305

The LUXIMA™ LUX1305 image sensor is a 1.3 Megapixel 535 FPS Global Shutter CMOS Digital Sensor developed for the high speed machine vision, barcode scanning, automation, dental scanning, motion analysis, industrial and biomedical markets. It allows ease of integration and lower system noise with on-chip 12 bit ADC and 8 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	15,000 e-
Read noise	25 e-
Responsivity	9.6 V/Lux-s @ 550 nm without color filter
Conversion gain	75 uV/e-
Dynamic range	55.6 dB
High dynamic range mode	Dual-slope and Triple-slope response supported
Frame rate	535 FPS @ 1280 × 1024 1,088 FPS @ 640 × 512 2,169 FPS @ 256 × 256 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 @ 540 FPS)
Data output	8 LVDS channels Multiplex Mode (4 LVDS or 2 LVDS channels) 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	1.6W @ 535 FPS Full Resolution
Package type	88 Ceramic LCC in a small footprint of 16.9 mm × 16.9 mm
Color filter	Color or Monochrome