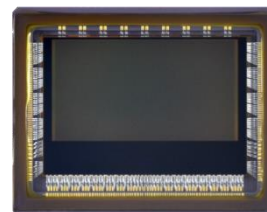


LUX2100

The LUXIMA™ LUX2100 image sensor is a 2.1 Megapixel 1,000 FPS Global Shutter CMOS Digital Sensor developed for the high speed machine vision, barcode scanning, 3D scanning, automation, motion analysis, industrial and biomedical markets. It allows ease of integration and lower system noise with on-chip 12 bit ADC and 32 parallel data LVDS outputs. It can be windowed down to achieve frame rates of 700,000+ FPS. 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 ceramic 203 uPGA package with a small footprint of 22.8 mm × 28.8 mm.



Optical format	4/3"
Active resolution	1952 × 1096 pixels
Pixel	10.0 um pitch PPD shutter pixel
Full well	>20K e-
Read noise	42 e- (input referred)
Responsivity	7.5 V/lux-sec @ 525nm typical without color filter 4.2 V/lux-sec @ 525nm typical with color filter
Conversion gain	28 uV/e-
Frame rate	1,000 FPS @ 1920 × 1080 1,500+ FPS @ 1280 × 720 125,000+ FPS @ 1920 × 8 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
Gain options	1X – 16X Analog Gain
Clock rate	75 MHz typical
Data output	32 LVDS ports @ 1,000 FPS 16 LVDS ports @ 500 FPS 8 LVDS ports @ 250 FPS 4 LVDS ports @ 125 FPS 900 Mbps per port @ 75 MHz (12 bit mode)
Power supply	3.3V Analog, 1.8V Analog, 1.8V Digital
Power consumption	3.9W @ 1,000 FPS full resolution Adjustable with lower frame rates
Package type	Ceramic 203 uPGA in a small footprint of 22.8 mm × 28.8 mm
Color filter	RGB or Monochrome