

LUX8M

The LUXIMA™ LUX8M image sensor is an 8.5 Megapixel 264 FPS Global Shutter CMOS Digital Sensor developed for the broadcast, traffic surveillance, 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 54,000+ 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 28.8 mm × 22.8 mm.



Optical format	4/3"
Active resolution	3904 × 2192 pixels
Pixel	5.0 um pitch PPD global shutter pixel
Full well	11,500 e-
Read noise	10 e- input referred
Responsivity	3.15 V/lux-sec @ 525 nm typical without Color filter
	2.20 V/lux-sec @ 525nm typical with color filter
Conversion gain	55 uV/e-
Frame rate	264 FPS @ 3904 × 2192
	537 FPS @ 1920 × 1080
	54,000+ FPS @ 3904 × 8
	It can be windowed down to achieve frame rates of 300,000+ FPS
Region of interest	Windowing and up to 8 simultaneous ROI's are supported
Analog to digital converter	12 bit
Gain options	1X – 6X Analog Gain
Clock rate	75 MHz typical
Data output	32 LVDS ports @ 264 FPS
	16 LVDS ports @ 139 FPS
	8 LVDS ports @ 69 FPS
	4 LVDS ports @ 35 FPS
	900 Mbps per port @ 75 MHz (12 bit mode)
Power supply	3.3V Analog, 1.8V Analog, 1.8V Digital
Power consumption	3.83W @ 264 FPS full resolution
	Adjustable with lower frame rates
Package type	Ceramic 203 uPGA in a small footprint of 28.8 mm × 22.8 mm
Color filter	Color or Monochrome