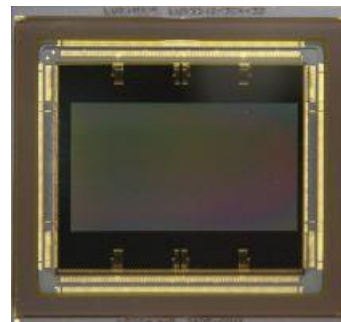


# LUX9506

The LUXIMA™ LUX9506 image sensor is a 9.5 Megapixel 666 FPS Global Shutter CMOS Digital Sensor for applications in the 3D scanning, intraoral scanning, dental, motion analysis, laser triangulation, line profiling, and wafer inspection markets. It allows ease of integration and lower system noise with on-chip 12 bit ADC, and 64 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 a 696 pin LGA-LCC package with a footprint of 39.8 mm × 37.8 mm.



Optical format	2"	
Active resolution	4096 × 2304 pixels	
Pixel	6.5 um pitch PPD global shutter pixel	
Full well	11 Ke-	
Read noise	7 e-	
Responsivity	6.1 V/lux-sec @ 525nm without color filter	
High dynamic range mode	3 slope HDR capability	
Frame rate	<b>Resolution</b>	<b>Frame Rate</b>
	4096 × 2304	666 FPS
	2048 × 1080	2,790 FPS
	2048 × 512	5,852 FPS
	2048 × 128	22,655 FPS
	2048 × 64	43,440 FPS
2048 × 32	80,256 FPS	
Region of interest	Windowing and up to 8 simultaneous ROI's are supported	
Binning	2x2, 1x2, 2x1	
Analog to digital converter	12b on chip ADC	
Analog gain options	1x – 6x	
Clock rate	100 MHz maximum	
Number of data channels	64 LVDS data channels + 8 LVDS synchronization channels	
	Multiplexer mode: 32 LVDS data channels	
Output data rate	<b>Bit Depth</b>	<b>Clock Rate 100MHz</b>
	12b	1200 Mbps
	10b	1000 Mbps
	8b	800 Mbps
Power supply	3.3V Analog, 1.8V Analog & 1.8V Digital	
Power consumption	4.9W Typical	
	Lower power with Multiplexer Mode	
Communication interface	4-Wire serial peripheral interface (SPI)	
Package type	696 pin LGA-LCC in a footprint of 39.8 mm × 37.8 mm	
Color filter	Color or Monochrome	