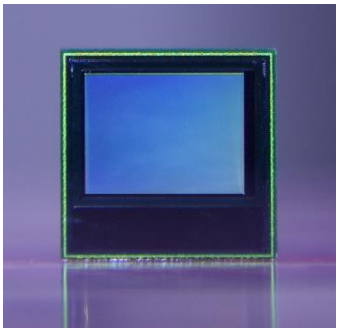
Luxima Technology LLC
159 E. Live Oak Ave., Suite 208
Arcadia, CA 91006, United States of America
Tel: +1 626-510-6288 Email: info@luxima.com

LUX410

The LUXIMA™ LUX410 image sensor is a 1/2” 832 x 632 @ 960 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 with on-chip voltage regulator, ADC, reference generator, and reference driver. It can be windowed down to achieve faster frame rates. The sensor supports 8 simultaneous Region-Of-Interest readouts with flexible window positions. Color and monochrome options are offered in a BGA Chip-scale package with a small footprint of 7.63 mm × 7.43 mm.



Optical format	1/2”
Active resolution	832 × 632 pixels
Pixel	6.6 um pitch PPD global shutter pixel
Full well	15,000 e-
Read noise	35 e-
Responsivity	9.5 V/Lux-s @ 525 nm without Color filter
High dynamic range mode	Dual-slope response supported
Frame rate	960 FPS @ 832 × 632 1050 FPS @ 800 × 600 1320 FPS @ 640 × 480
Region of interest	Windowing and up to 8 simultaneous ROI’s are supported
Analog to digital converter	12-bit
Analog gain options	1x – 7x
Clock rate	65 MHz
Data output	**#bit output** — **Data Rate Per Channel** 8 — 520 Mbps 10 — 650 Mbps 12 — 780 Mbps 8 LVDS ports standard Multiplexer Mode (4 LVDS, 2 LVDS ports)
Power supply	3.6V Analog, 2.1V Analog, 2.1V Digital
Power consumption	465mW @ 960 FPS Full Resolution
Package type	BGA Chip-scale package in a small footprint of 7.63 mm × 7.43 mm
Color filter	Color RGB or Monochrome

LUX410 brief v1.4
March 2026