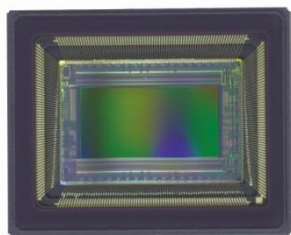


9MP Global Shutter CMOS Image Sensor – GMAX2509



Applications:

- Machine Vision
- Industrial Inspection
- 4k Video Broadcasting
- Intelligent Traffic System(ITS)

SENSOR DESCRIPTION

Featured with world smallest charge domain global shutter pixel, GMAX2509 is the new member of GMAX series C mount line up after GMAX0505. It offers 4K(4200 x 2160) resolution in 2/3" optical format, operates with true CDS for low noise and high dynamic range. In addition, it has excellent PLS and angular response thanks to the light pipe technology.

GMAX2509 supports 10 bit and 12 bit output and is offered in two speed variances matching industrial standard camera interface speeds. The full speed version consists of 32 sub-LVDS data output channels and each runs at maximum 960MHz, offering full resolution frame rate of 290 fps at 10 bit output and a total data throughput of 30.7Gbps. The global shutter and high frame rate limits image blur for 4K video applications and intelligent traffic system and increases throughput for industrial inline inspections. GMAX2509 is assembled in a compact 22 mm x 17.5 mm ceramic LGA package with aligned optical center and mechanical package center allowing easy integration into 29 mm miniature cameras. GMAX2509 is pin-compatible with GMAX0505 and GMAX2505.

SENSOR SPECIFICATION

Resolution	4200 × 2160	Optical format	2/3"
Pixel size	2.5μm × 2.5μm	Photo-sensitive area	10.5mm × 5.4mm
Shutter type	Global shutter	Quantum efficiency	65% @ 500nm
Full well capacity	6.7 ke ⁻	Shutter efficiency	1/10000
Dark noise	1.8 e ⁻	Dark current	<1e ⁻ /p/s @ 25°C
Dynamic range	63.4dB @ 10bit 65.5dB @ 12bit	Frame rate	290fps @ 10bit 121fps @ 12bit
Output interface	32 pairs of sub-LVDS	Channel multiplexing	32/16/12/8/4/2
ADC	10/12bit	Max. Data rate	30.72 Gbps
Chroma	Mono & Color	Package	226 pins LGA
Power supply	3.3V / 1.8V	Power consumption	1.1W @ 10bit / 0.8W @ 12bit

PACKAGE OUTLINE

