

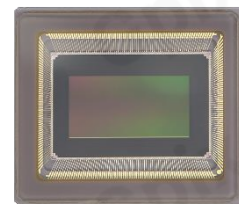
GMAX2509 Product Flyer



2.5UM 9MP GLOBAL SHUTTER IMAGE SENSOR

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 frame rate of 290 fps at 10 bit. 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.



Key Features

- 2.5 um Global Shutter pixel
- High resolution GS in 2/3" optical format
- High data throughput up to 30.72 Gbps
- Low noise global shutter
- NIR enhanced – Red Fox
- Good PLS and CRA

Applications

- Industrial inspection
- Intelligent Traffic Systems (ITS)
- Video Braodcasting
- Bar coding
- Medical application
- Motion Capture

Sensor Specifications

Resolution	4200 × 2160	Optical format	2/3"
Pixel size	2.5 μ m × 2.5 μ m	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	62.1dB @ 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	Power consumption	1.1W @ 10bit / 0.8W @ 12bit
I/O voltage	1.8V - 3.3V	Package	226 pins LGA 20.3mmx17.54mm

Ordering Information

Sensor Part No.

GMAX2509-BVM-HST-AU1

High speed, 290fps, 10bit, mono, small package

GMAX2509-BVM-NST-AU1

Normal speed, 121fps, 12bit, mono, small package

GMAX2509-BVC-HST-AU1

High speed, 290fps, 10bit, color, small package

GMAX2509-BVC-NST-AU1

Normal speed, 121fps, 12bit, color, small package

EVK Part No.

E-GMAX2509-02-1

USB interface, 3 stacked PCB boards

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