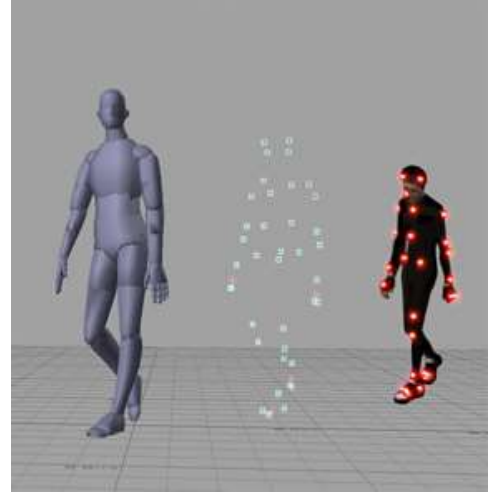


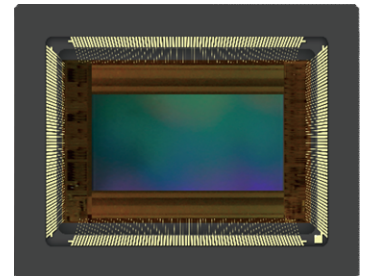
# GMAX2509 Product Flyer



## 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	2.5μm × 2.5μm	Photo-sensitive area	10.5mm × 5.4mm
Shutter type	Global shutter	Quantum efficiency	65% @ 500nm
Full well capacity	6.7 ke <sup>-</sup>	Shutter efficiency	1/10000
Dark noise	1.8 e <sup>-</sup>	Dark current	<1e <sup>-</sup> /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 volatge	1.8V - 3.3V	Package	226 pins LGA 22mmx17.54mm

## Ordering Information

### Sensor Part No.

GMAX2509-BVM-HLT-AU1 High speed, 290fps, 10bit, mono, large package	GMAX2509-BVM-NLT-AU1 Normal speed, 121fps, 12bit, mono, large package
GMAX2509-BVC-HLT-AU1 High speed, 290fps, 10bit, color, large package	GMAX2509-BVC-NLT-AU1 Normal speed, 121fps, 12bit, color, large package
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.

EVA-2509-HC10 (10bit) / EVA-2509-NC12 (12bit)  
USB interface, 3 stacked PCB boards

## Contact

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