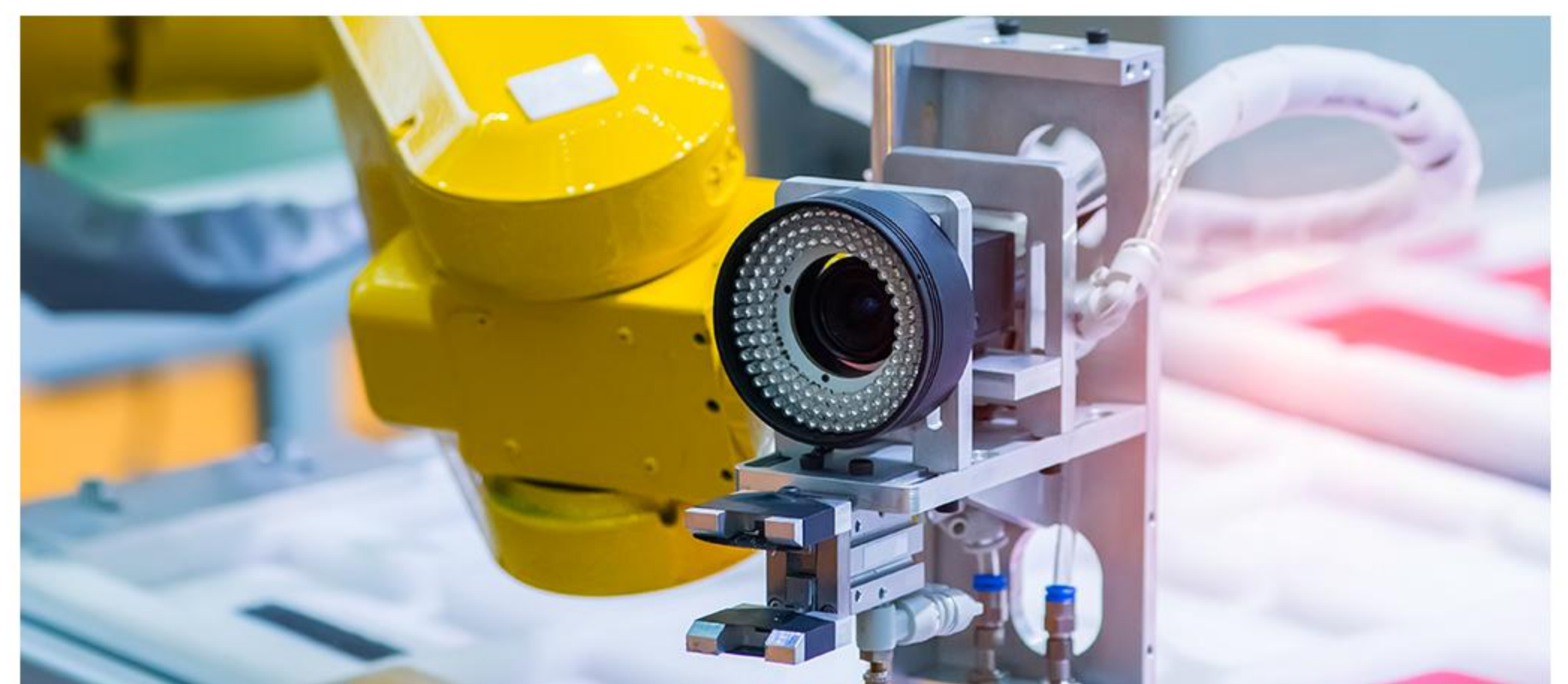


# GMAX2509

## 9 MP 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 960 MHz, 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 and Benefits

- ▶ High Resolution GS in 2/3" Optical Format
- ▶ High Data Throughput > 26 Gbps
- ▶ Low Noise Global Shutter
- ▶ 2.5  $\mu\text{m}$  Global Shutter Pixel
- ▶ Good PLS and CRA

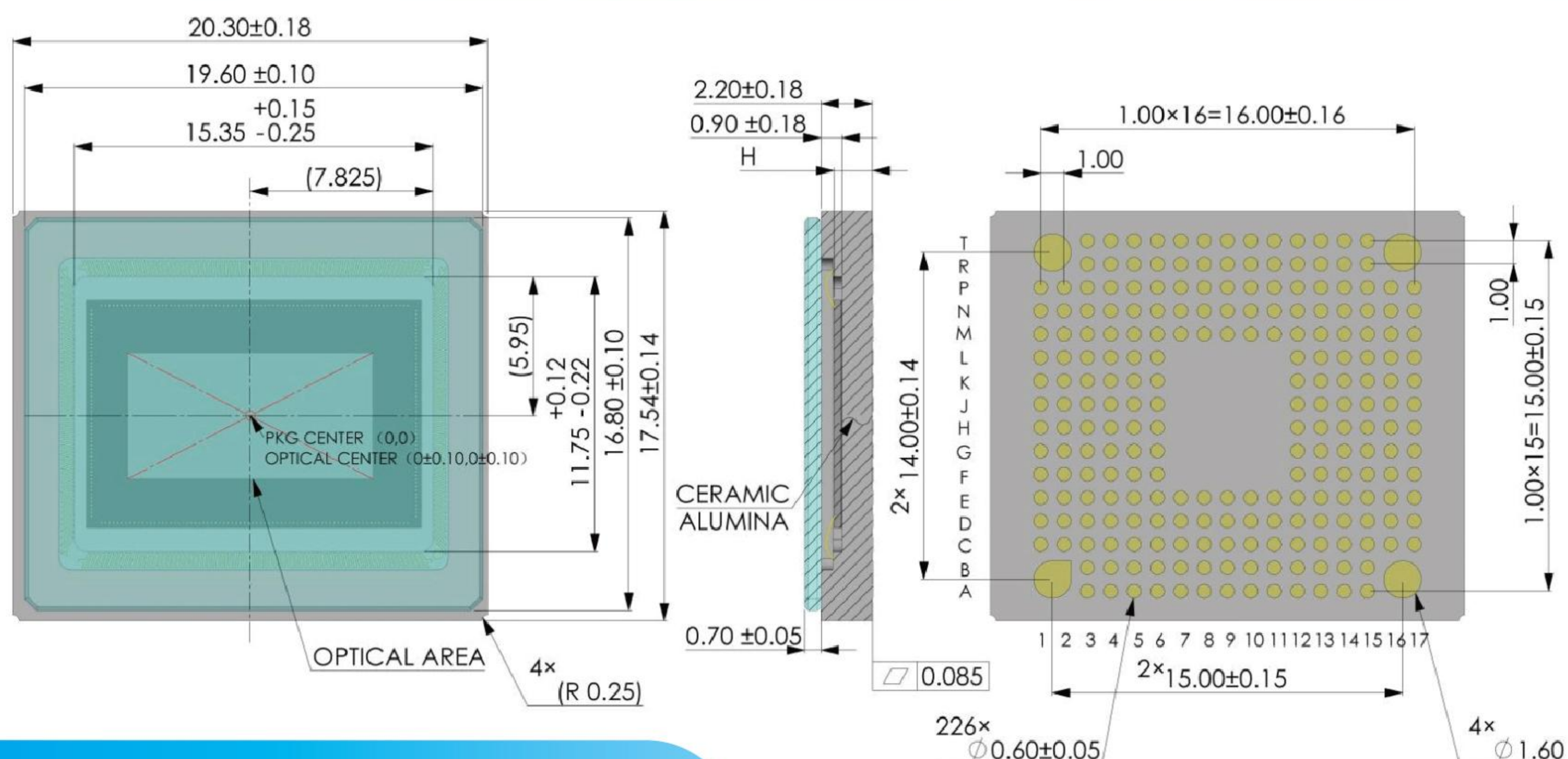
### Application

- ▶ Automation & Inspection
- ▶ Logistic & Positioning
- ▶ Metrology
- ▶ Motion Capture

## Specifications

Nr of Active Pixels	4200(H) x 2160(V)	Optical Format	2/3"
Pixel Size	2.5 $\mu\text{m}$ x 2.5 $\mu\text{m}$	Photosensitive Area	10.5 mm x 5.4 mm
Shutter Type	Global Shutter	Parasitic Light Sensitivity	<-80 dB
Peak QE	65.5% (500 nm)	Angular Response	>13° (80% Response)
Full Well Capacity	6.7 ke <sup>-</sup> (PGA gain 1.0x)	Temporal Noise	1.8 e <sup>-</sup> (12 bit,PGA gain 4x) 3.9 e <sup>-</sup> (10 bit,PGA gain 2x)
Max. SNR	38.2 dB (PGA gain 1.0x)	Dynamic Range	65.5 dB (12 bit,PGA gain 2x) 62.1 dB (10 bit,PGA gain 2x)
Dark Current	1.2 e <sup>-</sup> /pixel/s (30°C)	ADC	10/12 bit
Max Frame Rate	290 fps (10 bit) 121 fps (12 bit)	Output Format	32 ch Sub-LVDS
Power Consumption	<0.9 W (12 bit) <1.2 W (10 bit)	Max. Data Rate	30.72 Gbps
Supply Voltage	3.3 V/1.3 V (analog) 1.8 V-3.3 V (IO) 1.3 V (digital)	Channel Multiplexing	32/16/12/8/4/2
Chroma	Mono & RGB Color	Package	226 pins LGA (20.3 mm x 17.5 mm)

## Package Drawing



## Contact Gpixel

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Disclaimer: The product information and pictures in this flyer are for reference only. For the latest information please visit [www.gpixel.com](http://www.gpixel.com).  
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