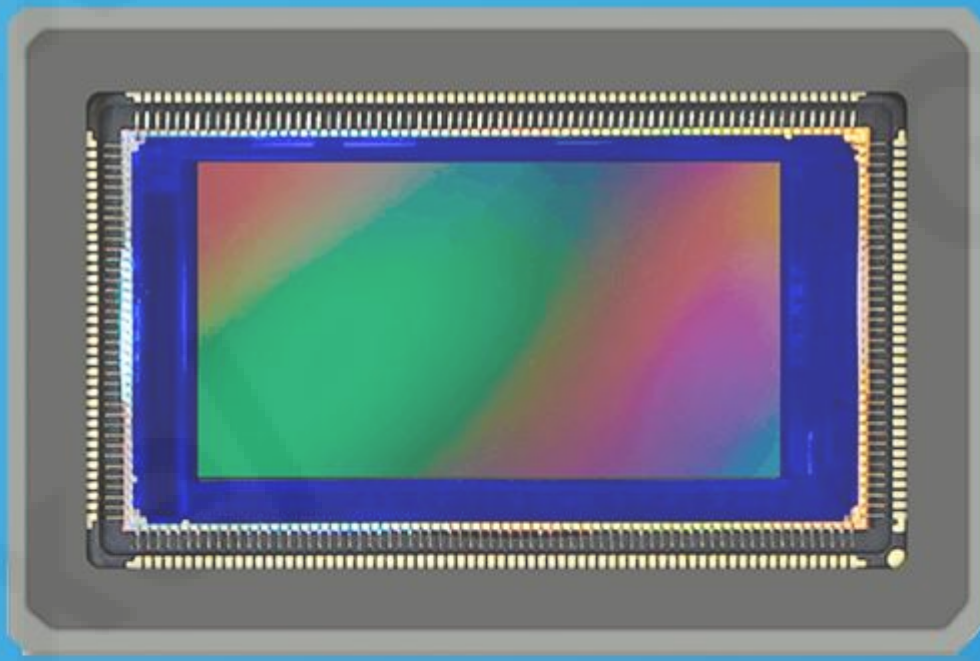


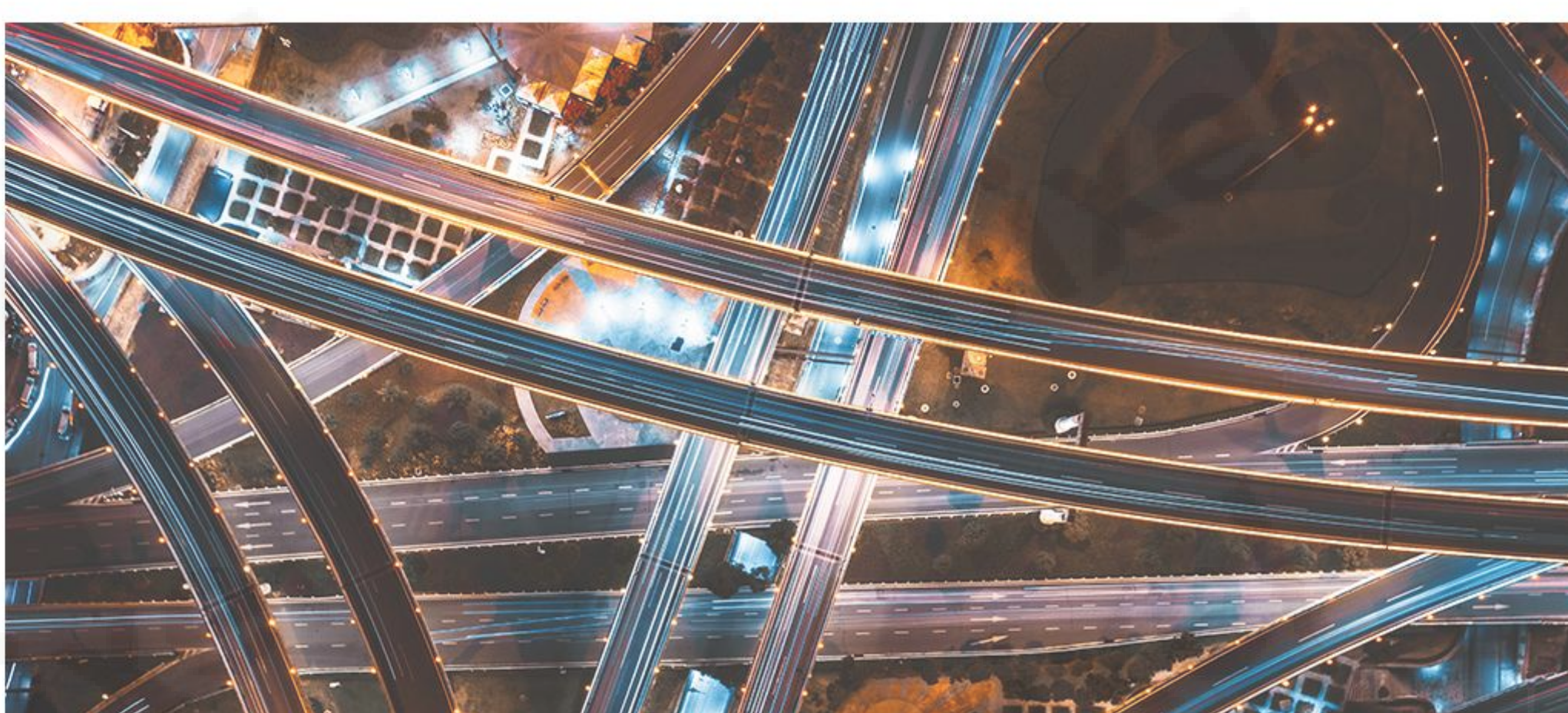


GMAX3809

9 MP GLOBAL SHUTTER IMAGE SENSOR

GMAX3809 fits 4096(H) x 2160(V) (9 MP) resolution into a 1.1" image format with low noise, charge domain Global Shutter pixels running at 65 fps (12 bit) ADC resolution per pixel. GMAX3809's 3.8 μm pixel achieves a full well capacity of 11.5 ke^- and noise of 3.6 e^- , delivering over 70 dB linear dynamic range. Similar to other GMAX products, the advanced pixel technology brings a Parasitic Light Sensitivity of -92 dB and excellent angular response $> 15^\circ$ (80% response). Gpixel's Red Fox technology is employed to deliver a NIR-enhanced QE of 30% (850 nm) for excellent performance in intelligent traffic systems.

GMAX3809 is configurable through SPI or I²C and supports on-chip color offset calibration, LED flicker mitigation, multiple region HDR and OTP functions. GMAX3809 is housed in a 163-pins ceramic LGA package with outer dimensions of 27.1 mm x 17.9 mm and an LGA pad pattern optimized for reliable solder connections. The sensor assembly includes a double side AR coated cover glass lid.



Key Features and Benefits

- ▶ Low Noise Global Shutter
- ▶ Excellent PLS and Angular Response
- ▶ On-chip Color Offset Calibration

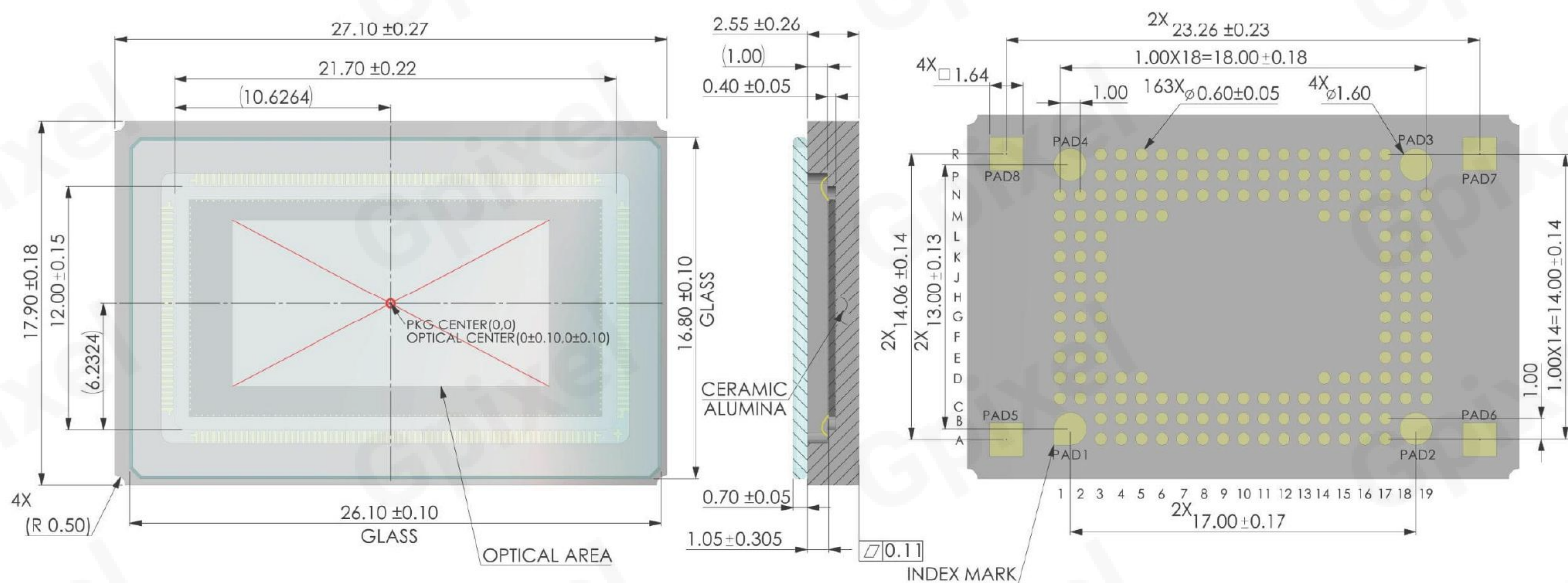
Application

- ▶ Automation & Inspection
- ▶ Intelligent Transport Systems

Specifications

Nr of Active Pixels	4096(H) x 2160(V)	Optical Format	1.1"
Pixel Size	3.8 μm x 3.8 μm	Photosensitive Area	15.6 mm x 8.2 mm
Shutter Type	Global Shutter	Parasitic Light Sensitivity	-92.0 dB
Peak QE	61.7% (540 nm)	Angular Response	> 15° (80% Response)
Full Well Capacity	11.2 ke ⁻	Temporal Noise	3.3 e ⁻ (Analog gain 1.0x)
Max. SNR	40.5 dB	Dynamic Range	70.7 dB
Dark Current	31.5 e ⁻ /pixel/s (41 °C)	ADC	12 bit
Max Frame Rate	54 fps	Output Format	8 ch Sub-LVDS
Power Consumption	<1.0 W	Max. Data Rate	7.68 Gbps
Supply Voltage	3.3 V/3.6 V (analog) 1.8 V-3.3 V (IO) 1.2 V (digital)	Channel Multiplexing	8/4
Chroma	Mono (NIR enhanced) RGB Color	Package	163 pins LGA (27.1 mm x 17.9 mm)

Package Drawing



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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.
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