

# GMAX Series

## PIN COMPATIBLE GLOBAL SHUTTER IMAGE SENSORS

### GMAX C-MOUNT

The GMAX C-Mount family consists of four pin-compatible CMOS image sensors ranging from 5 MP to 26 MP. All sensors incorporate the same high-performance 2.5  $\mu\text{m}$  global shutter pixel delivering 65% quantum efficiency at 550 nm and over 65 dB dynamic range. The sensors are assembled in footprint-identical 226 pin ceramic LGA packages with aligned optical and mechanical centers and are available in color and monochrome variants. [GMAX0505](#) is also available with Red Fox NIR enhancement technology, which increases the quantum efficiency to an industry-leading 15% at 940 nm.

The combination of high resolution and frame rate in standard optical formats makes the GMAX C-Mount family an attractive and cost-effective solution in a variety of applications including inspection, automation, robotics, and intelligent traffic systems.



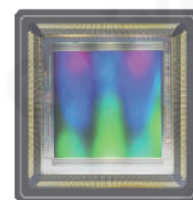
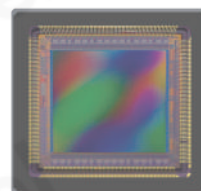
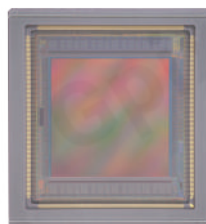
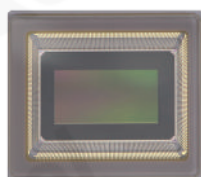
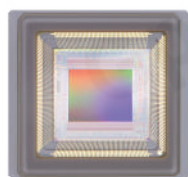
#### Product Family Features

- ✓ High Frame Rates
- ✓ Flexible ROI read out
- ✓ Small sized Global Shutter pixel for high resolution
- ✓ Product family approach
- ✓ Industry standard sub LVDS outputs with channel multiplexing
- ✓ Optical Black columns and rows
- ✓ On-chip sequencer and SPI control
- ✓ One Time Programmable memory (OTP)

#### Applications

- ✓ Automation & Inspection
- ✓ Traffic & Transportation
- ✓ Video Broadcasting
- ✓ Medical Imaging

# Gpixel Sensor Specifications



CMOS Image Sensors

GMAX2505 5MP

GMAX2509 9MP

GMAX4416 16MP

GMAX2518 18MP

GMAX0505 26MP

	GMAX2505 5MP	GMAX2509 9MP	GMAX4416 16MP	GMAX2518 18MP	GMAX0505 26MP
<b>Pixel</b>	2.5 $\mu\text{m}$ GS	2.5 $\mu\text{m}$ GS	4.4 $\mu\text{m}$ GS	2.5 $\mu\text{m}$ GS	2.5 $\mu\text{m}$ GS
<b>Opt. Format</b>	1/2"	2/3"	1.6"	1"	1.1"
<b>Resolution</b>	2600 x 2160	4200 x 2160	4096 x 4096	4508 x 4096	5120 x 5120
<b>Chroma</b>	Mono RGB	Mono RGB	Mono	Mono RGB	Mono NIROpt RGB
<b>FWC<sub>max</sub></b>	6.7 ke <sup>-</sup>	6.7 ke <sup>-</sup>	15.0 ke <sup>-</sup>	8 ke <sup>-</sup>	6.5 ke <sup>-</sup>
<b>Noise<sub>min</sub></b>	1.8 e <sup>-</sup>	1.8 e <sup>-</sup>	3.0 e <sup>-</sup>	1.8 e <sup>-</sup>	1.6 e <sup>-</sup>
<b>DR<sub>max</sub></b>	65.5 dB	65.5 dB	73.9 dB	67 dB	65.8 dB
<b>QE<sub>max</sub></b>	65% @ 550 nm	65% @ 550 nm	70.5% @ 550 nm	65% @ 550 nm	65% @ 550 nm
<b>Frame Rate @ADC</b>	290 fps @ 10 b 121 fps @ 12 b	290 fps @ 10 b 121 fps @ 12 b	80 fps @ High Speed	139 fps @ 10 b 64 fps @ 12 b	150 fps @ 10 b 42 fps @ 12 b
<b>Power</b>	<0.9 W	<1.2 W	<1.5 W	<1.2 W	<1.5 W
<b>SLVDS lanes</b>	20 @ 960 MHz	32 @ 960 MHz	32 @ 960 MHz	32 @ 960 MHz	48 @ 960 MHz
<b>Package</b>	19.0 x 17.5 mm <sup>2</sup> 226p LGA	20.3 x 17.5 mm <sup>2</sup> 226p LGA	31.7 x 34.0 mm <sup>2</sup> 152p $\mu$ PGA	20.8 x 19.5 mm <sup>2</sup> 226p LGA	22.3 x 23.4 mm <sup>2</sup> 226p LGA
<b>Availability</b>	EVK & MP	EVK & MP	ES & EVK	EVK & MP	EVK & MP

## Contact

info@gpixel.com  
www.gpixel.com

## Gpixel China

Building #5, Optoelectronic Information Industrial Park, #7691 Ziyou Road, Changchun, Jilin, China.  
Tel: +86-431-85077785

## Gpixel Europe

Copernicuslaan 60 bus 8  
2018 Antwerpen, Belgium  
Tel: +32-33034442



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