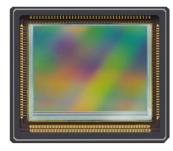


# 65MP Global Shutter CMOS Image Sensor - GMAX3265



## **Applications:**

- Machine Vision
- Industrial Inspection
- Metrology
- FPD Inspection

#### **SENSOR DESCRIPTION**

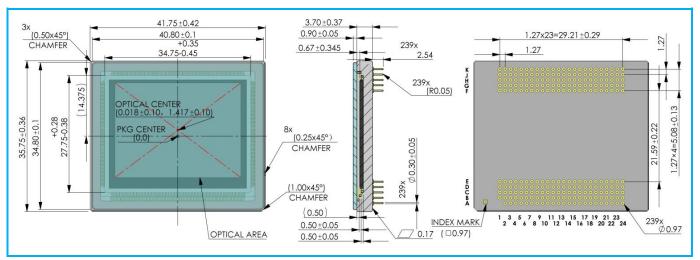
Featured with the latest generation 3.2µm charge-domain global shutter pixel and 65MP (9344x7000) resolution, GMAX3265 is the leading-edge image sensor with 37.4mm diagonal for high resolution machine vision and industrial inspection applications. This new generation pixel operates with true correlated double sampling (CDS), allowing low read noise and high dynamic range. In addition, the dual light pipe technology provides excellent PLS and angular response.

GMAX3265 is offered in high speed version and normal speed version. High speed version delivers 71fps at 10 bit output, normal speed version delivers 31fps at 12 bit output. The superior resolution and frame rate significantly increases the system throughput for industrial inspection applications, such as semiconductor, PCB, AOI or display inspection. The sensor integrates an on-chip sequencer, programmable through SPI, shortening time-to-market for camera manufactures. GMAX3265 is assembled with 239-pin micro-PGA ceramic package for reliability and good heat dissipation and a double-sided ARC D263 glass lid.

### SENSOR SPECIFICATION

| Resolution         | 9344 × 7000                   | Optical format           | 2.3"(∅37.4 mm)                 |
|--------------------|-------------------------------|--------------------------|--------------------------------|
| Pixel size         | 3.2μm × 3.2μm                 | Photo-sensitive area     | 29.9mm × 22.4mm                |
| Shutter type       | Global shutter                | Quantum efficiency       | >65% @500nm                    |
| ADC                | 10/12bit                      | Shutter efficiency       | >1/15000                       |
| Dark noise@12bit   | 7.7e <sup>-</sup> @ PGA x0.75 | Full well capacity@12bit | 11ke <sup>-</sup> @PGA x0.75   |
|                    | 5e <sup>-</sup> @PGA x1.25    |                          | 10ke <sup>-</sup> @PGA x1.25   |
|                    | 1.9e <sup>-</sup> @PGA x6     |                          | 2ke- @PGA x6                   |
| Dark noise@10bit   | 11.8e <sup>-</sup> @PGA x0.75 | Full well capacity@10bit | 10.6ke <sup>-</sup> @PGA x0.75 |
|                    | 7.5e <sup>-</sup> @PGA x1.25  |                          | 9.8ke <sup>-</sup> @PGA x1.25  |
| Max. Dynamic range | 62.3dB @ 10bit                | Frame rate               | 71fps @ 10bit                  |
|                    | 66dB @ 12bit                  |                          | 31fps @ 12bit                  |
| Output interface   | 56 pairs of sub-LVDS          | Channel multiplexing     | 56/28/14/7/4/2/1               |
| Dark current       | <1e⁻/p/s @ 25℃                | Power consumption        | 2.2W @ 10bit / 2W @ 12bit      |
| Chroma             | Mono & RGB Color              | Package                  | 239-pin micro-PGA              |

#### **PACKAGE OUTLINE**



Please address all product inquiries to GPIXEL.

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