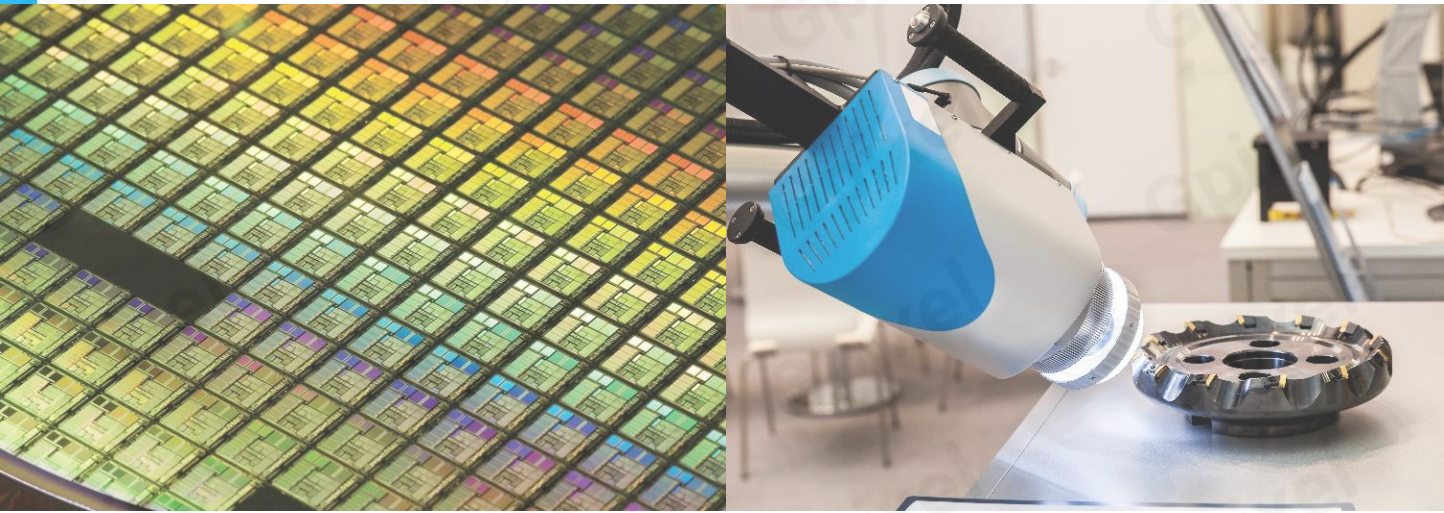
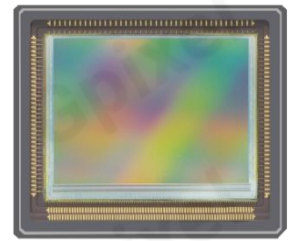


GMAX3265 Product Flyer



65MP GLOBAL SHUTTER IMAGE SENSOR

Featured with the latest generation 3.2 μ m 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.

Key Features

- 3.2 μ m Global Shutter pixel
- Image diagonal: 37.4mm
- On chip sequencer and SPI control
- Excellent resolution and significant frame rate
- High speed and Good PLS

Applications

- Industrial Inspection
- Machine Vision
- Metrology
- FPD Inspection

Sensor Specifications

| | | | |
|--------------------|--|-----------------------------|---|
| Resolution | 65 MP - 9344(H) x 7000(V) | Optical format | 2.3" |
| Pixel size | 3.2 μm x 3.2 μm | Photosensitive area | 29.9mm x 22.4mm |
| Shutter type | Global shutter | Parasitic Light Sensitivity | < - 83.5 dB (angular dependence) |
| Peak QE | 65.3% @ 500 nm | Angular response | > 15° (80% response) |
| Full well capacity | 10.6k e ⁻ @ PGA gain x0.75 | Temporal noise | 1.9 e ⁻ @ 12-bit, PGA gain x6 7.5 e ⁻ @ 10-bit, PGA gain x1.25 |
| Max. SNR | 40.2 dB @ PGA gain x1.0 | Dynamic Range | 66.0 dB @ 12-bit, PGA gain x1.25 62.3 dB @ 10-bit, PGA gain x1.25 |
| Dark Current | 5.3 e ⁻ /pixel/s @ 40 °C | ADC | 10/12 bit |
| Maximum frame rate | 71 fps @ 10 bit 31 fps @ 12 bit | Output format | 56 pairs of Sub-LVDS |
| Power consumption | <2.1 W @ 12 bit <2.3 W @ 10 bit | Max. Data rate | 50.40 Gbps |
| Supply voltage | 3.3 V /1.3 V for analog 1.8 V - 3.3 V for IO 1.3 V for digital | Channel multiplexing | 56/28/14/8/7/4/2/1 |
| Chroma | Bayer RGB, Mono | Package | 239 pins μPGA 41.8 mm x 35.8 mm |

Ordering Information

| Sensor Part No. | Description |
|----------------------|--|
| GMAX3265-BVM-HUT-BU1 | Monochrome, Sealed glass lid, High speed, 71 fps @ 10bit 56 x Sub-LVDS, Grade 1 |
| GMAX3265-BVM-HUT-BU2 | Monochrome, Sealed glass lid, High speed, 71 fps @ 10bit 56 x Sub-LVDS, Grade 2 |
| GMAX3265-BVM-HUT-BU3 | Monochrome, Sealed glass lid, High speed, 71 fps @ 10bit 56 x Sub-LVDS, Grade 3 |
| GMAX3265-BVC-HUT-BU1 | Bayer RGB, Sealed glass lid, High speed, 71 fps @ 10bit 56 x Sub-LVDS, Grade 1 |
| GMAX3265-BVC-HUT-BU2 | Bayer RGB, Sealed glass lid, High speed, 71 fps @ 10bit 56 x Sub-LVDS, Grade 2 |
| GMAX3265-BVM-NUT-BU1 | Monochrome, Sealed glass lid, Normal speed, 31 fps @ 12bit 28 x Sub-LVDS, Grade 1 |
| GMAX3265-BVM-NUT-BU2 | Monochrome, Sealed glass lid, Normal speed, 31 fps @ 12bit 28 x Sub-LVDS, Grade 2 |
| GMAX3265-BVM-NUT-BU3 | Monochrome, Sealed glass lid, Normal speed, 31 fps @ 12bit 28 x Sub-LVDS, Grade 3 |
| GMAX3265-BVC-NUT-BU1 | Bayer RGB, Sealed glass lid, Normal speed, 31 fps @ 12bit 28 x Sub-LVDS, Grade 1 |
| GMAX3265-BVC-NUT-BU2 | Bayer RGB, Sealed glass lid, Normal speed, 31 fps @ 12bit 28 x Sub-LVDS, Grade 2 |
| GMAX3265-BVM-HUT-BR2 | Monochrome, Removable glass lid, High speed, 71 fps @ 10bit 56 x Sub-LVDS, Grade 2 |
| GMAX3265-BVM-NUT-BR2 | Monochrome, Removable glass lid, Normal speed, 31 fps @ 12bit 28 x Sub-LVDS, Grade 2 |