



OG02B

2-Megapixel Product Brief



High-Resolution, Cost-Effective Global Shutter Image Sensors for Machine Vision Applications

OMNIVISION's OG02B1B (B&W) and OG02B10 (color) are global shutter image sensors designed to cost-effectively enable a wide range of consumer and industrial machine vision applications such as AR/VR headsets and accessories, industrial automation, robotics, agricultural drones and 3D modeling.

These sensors provide designers with best-in-class resolution and the option for full-color imaging, and both have a 15-degree chief ray angle (CRA) to support wide field-of-view lens designs. This combination of color imaging and CRA is excellent for applications such as agricultural drones that must capture high-resolution color images for crop and field monitoring.

Available in a 1/2.9-inch optical format, the OG02B1B and OG02B10 capture 2-megapixel or 1600 x 1300 resolution images and video at 60 frames per second (fps) using advanced 3 μm x 3 μm OmniPixel®3-GS pixel technology. This global shutter technology eliminates motion artifacts and blurring, and dramatically improves low-light sensitivity.

Additionally, both sensors' excellent near infrared (NIR) sensitivity at 850 nm and 940 nm helps reduce device power consumption to extend battery life.

Applications

- Augmented and virtual reality
- Drones
- 3D imaging
- Machine vision
- Industrial bar code scanning
- Industrial automation

Features

- **Active array size:** 1600 x 1300
- **Maximum image transfer rate:**
 - 1600 x 1300: 60 fps
- **Power supply:**
 - Analog: 2.8V (nominal)
 - Core: 1.2V (nominal)
 - I/O: 1.8V (nominal)
- **Output interfaces:** 2-lane MIPI serial output and DVP parallel output
- **Output formats:** 10-bit RAW
- **Lens size:** 1/2.9"
- **Pixel size:** 3 μm x 3 μm

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