



OG01H1B

1.55-Megapixel Product Brief



New 2.2-micron BSI Global Shutter Image Sensor for Industrial Machine Vision Applications

The new OG01H1B global shutter (GS) CMOS image sensor features the industry's smallest 2.2 μm backside illuminated (BSI) pixel for high resolution in a compact design, replacing the larger 2.5 μm frontside-illuminated (FSI) GS sensors traditionally used in machine vision cameras.

This high-resolution, small-format GS sensor provides the highest shutter efficiency available on the market with the ability to capture high-speed moving objects clearly and accurately at high frame rates, ideal for barcode scanners, robotics, and intelligent transportation systems (ITS). It also features high sensitivity, low noise and enhanced NIR quantum efficiency (QE) for industry-leading low-light performance.

The new OG01H1B is a 1.55MP resolution CMOS GS sensor in a 1/4.545-inch OF. It has a fast frame rate of 120 fps and high shutter efficiency of 106 dB.

The image sensor features OMNIVISION's Nyxel® near-infrared (NIR) technology, which boosts QE to 700–1050 nm, enabling the capture of brighter images from farther away; PureCel®Plus-S stacked-die architecture for best-in-class image sensor performance; and CSP package technology for the smallest possible solution.

The OG01H1B supports 4-lane MIPI & DVP.

Applications

- Logistics barcode applications
- Vision guided cameras for robotics
- 3D applications
- Machine vision

Features

- **Active array size:** 1440 x 1080
- **Maximum image transfer rate:**
 - 1440 x 1080: 120 fps (MIPI)
 - 1440 x 1080: 30 fps (DVP)
- **Power supply:**
 - Analog: 2.8V
 - Digital: 1.2V
 - I/O pads: 1.8V
- **Output interfaces:** Up to 4-lane MIPI serial output and 10-bit DVP
- **Output formats:** 10-bit RAW
- **Lens size:** 1/4.545"
- **Pixel size:** 2.2 μm x 2.2 μm

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