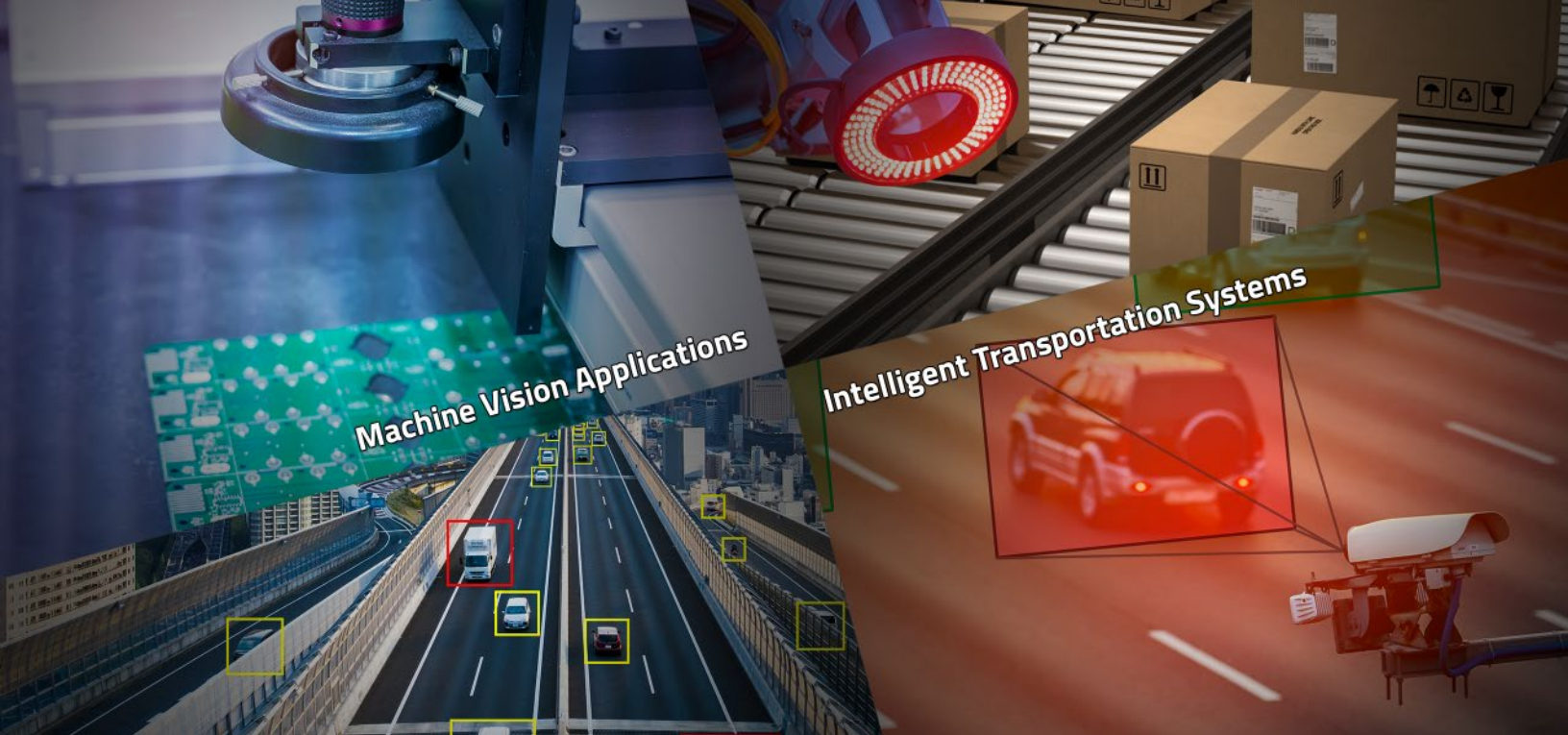




OG09A

9-Megapixel Product Brief



9-Megapixel Global Shutter CMOS Image Sensor for Industrial Machine Vision Applications

The OG09A is a large format 9-megapixel (MP) global shutter (GS) CMOS image sensor with high precision and accurate control for factory automation (FA) and intelligent transportation systems (ITS).

The large-pixel, 3.45-micron (μm) backside-illuminated (BSI) stacked global shutter sensor has low readout noise and the highest quantum efficiency (90% QE) in its class. It delivers excellent image performance with a frame rate of 60 fps at 12-bit and enhanced shutter efficiency of 106 dB, making it ideal for machine vision applications that require the ability to capture clear images of high-speed moving objects.

The OG09A10 (color) and OG09A1B (monochrome) sensors have a 1-inch optical format.

The OG09A sensor is based on OMNIVISION's patented PureCel®Plus-S stacked-die architecture for best-in-class image sensor performance. The OG09A features Nyxel® near-infrared (NIR) technology for crisp, clear images in low-light conditions. It offers 76 dB dynamic range with dual conversion gain high dynamic range (DCG™ HDR) support. An external trigger mode enables backend exposure control for improved accuracy.

The OG09A supports a 16-lane LVDS interface to 1.05 Gbps.

Applications

- Intelligent transportation systems (ITS)
- Factory automation (FA)
- Machine vision cameras
- Industrial bar code scanning
- Robotics

Features

- **Active array size:** 4096 x 2160
- **Maximum image transfer rate:**
 - 4096 x 2160: 60 fps (12-bit)
 - 4096 x 2160: 30 fps (12-bit DCG™ HDR)
- **Power supply:**
 - Analog: 2.8V
 - Digital: 1.2V
 - I/O pads: 1.8V
- **Output interfaces:** 4/8/16-lane LVDS
- **Output formats:** 10/12-bit RAW
- **Lens size:** 1"
- **Pixel size:** 3.45 μm x 3.45 μm

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