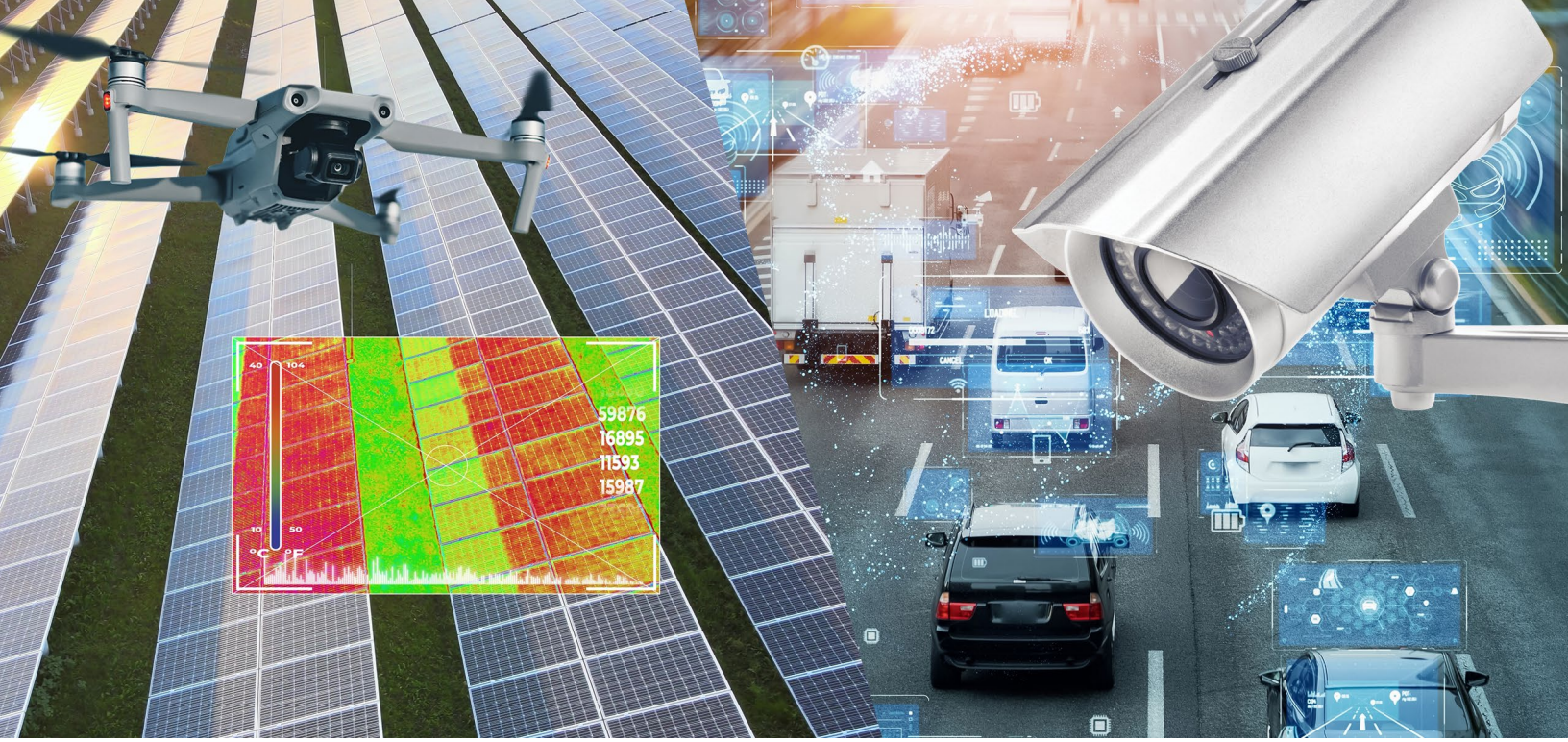

OG03A

3-Megapixel Product Brief

3.45-micron BSI Global Shutter CMOS Image Sensor for Machine Vision Applications

The OG03A global shutter (GS) CMOS image sensor features a 3.45-micron (µm) back-side illuminated (BSI) pixel for high sensitivity, industry-leading shutter efficiency and excellent low-light performance for applications including factory automation (FA), robotics, logistics, industrial barcode scanners and intelligent transportation systems (ITS). The advanced performance in a smaller pixel enables it to replace larger 4.8 µm pixel front-side illuminated (FSI) sensors traditionally used in machine vision products.

The OG03A10 (color) and OG03A1B (monochrome) are 3-megapixel BSI GS sensors that feature OMNIVISION's industry-leading technologies, including Nyxel® near-infrared (NIR) and PureCel®Plus-S pixel architecture.

The OG03A comes in a 1/1.8-inch optical format (OF) and supports 150 frames per second (fps) with 106 dB shutter efficiency. 20Ke- full-well capacity (FWC) increases high dynamic range (HDR) with low noise level, resulting in clearer pictures. On-chip dual conversion gain (DCG™) HDR extends dynamic range, reproducing motion artifact-free and low-noise images in challenging lighting conditions.

The GS sensor fits the standard C-mount lens and supports both LVDS and MIPI interfaces.

Applications

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

Features

- **Active array size:** 2064 x 1544
- **Maximum image transfer rate:**
  - 2064 x 1544: 150 fps (10-bit)
- **Power supply:**
  - Analog: 2.8V
  - Digital: 1.2V
  - I/O pins: 1.8V
- **Output interfaces:** 4/8-lane LVDS/4-lane MIPI
- **Output formats:** 10/12/14-bit RAW
- **Lens size:** 1/1.8"
- **Pixel size:** 3.45 µm x 3.45 µm

Version 1.1, July 2026

OMNIVISION®

4275 Burton Drive
Santa Clara, CA 95054
USA

Tel: + 1 408 567 3000
Fax: + 1 408 567 3001
www.ovt.com