

OS08A10 8-megapixel product brief



Low-Power 8-Megapixel PureCel® Sensor Brings 4K2K Video to Security and Consumer Applications



available in
a lead-free
package

OmniVision's OS08A10 is a low-power image sensor that brings 8-megapixel resolution to a variety of applications, including commercial surveillance, IoT, action cameras, drones, and augmented / virtual reality (AR/VR) systems. Built on OmniVision's advanced PureCel® pixel architecture, the OS08A10 leverages backside illumination (BSI) technology with improved low-light sensitivity to deliver high-resolution images and capture ultra-high-resolution 4K2K video, even in challenging high-contrast lighting conditions.

The OS08A10 captures smooth, best-in-class 4K2K video at 60 frames per second (fps) and 1080p video at 120 fps, enabling detailed wide-area coverage.

The OS08A10 also features a 11-degree chief ray angle (CRA), a two-exposure staggered high dynamic range (HDR) mode, and low power requirements to enable a range of battery-powered drones and wireless devices. The OS08A10 is compatible with advanced compression technology such as high-efficiency video coding (HEVC) to deliver 4K video to mainstream displays.

Find out more at www.ovt.com.



Applications

- Security Cameras
- Action Cameras
- High Resolution Consumer Cameras
- Digital Still Cameras (DSC)
- Digital Video Camcorders (DVC)

Product Features

- 2 μm x 2 μm pixel
- optical size of 1/1.8"
- programmable controls for:
 - frame rate
 - mirror and flip
 - cropping
 - windowing
- supports output formats:
 - 12-/10-bit RGB RAW
- supports image sizes:
 - 4K2K (3840x2160)
 - 2560 x 1440
 - 1080p (1920x1080)
 - 720p (1280x720)
- supports 2x2 binning
- standard serial SCCB interface
- 12-bit ADC
- up to 4-lane MIPI/LVDS serial output interface (supports maximum speed up to 1500 Mbps/lane)
- 2-exposure staggered HDR support
- programmable I/O drive capability
- light sensing mode (LSM)
- PLL with SCC support
- support for FSIN

OS08A10



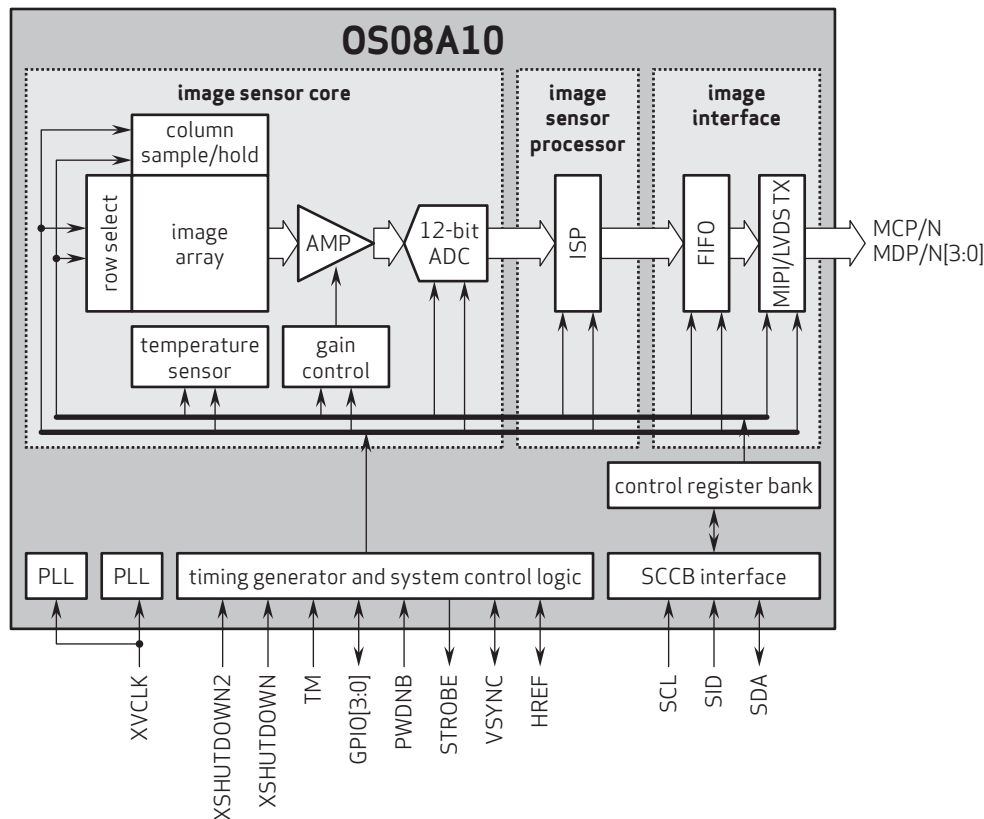
Ordering Information

- OS08A10-H92A-1B (color, lead-free)
92-pin CSP

Product Specifications

- active array size: 3840 x 2160
- maximum image transfer rate:
 - 4K2K: 60 fps
 - 2560 x 1440: 60 fps
 - 1080p: 120 fps
- power supply:
 - core: 1.2V
 - analog: 2.8V
 - I/O: 1.8V
- power requirements:
 - active: 240 mA
 - XSHUTDOWN: <math><10\ \mu\text{A}</math>
- temperature range:
 - operating: -30°C to +85°C junction temperature
 - stable image: 0°C to +60°C junction temperature
- output formats: 10/12-bit RGB RAW
- lens size: 1/1.8"
- lens chief ray angle: 11° linear
- scan mode: progressive
- pixel size: 2.0 μm x 2.0 μm
- image area: 7736.256 μm x 4379.616 μm

Functional Block Diagram



4275 Burton Drive
Santa Clara, CA 95054
USA

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

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