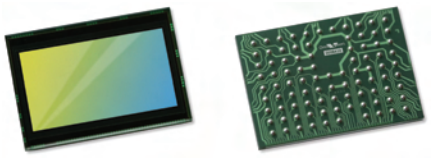


OS08A10 8-megapixel product brief

lead free

available in a lead-free package

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

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.

The OS08A10 comes in a package size of 8.9 mm x 6.3 mm.

Find out more at www.ovt.com.

OmniVision

OS08A10

Applications

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

Ordering Information

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

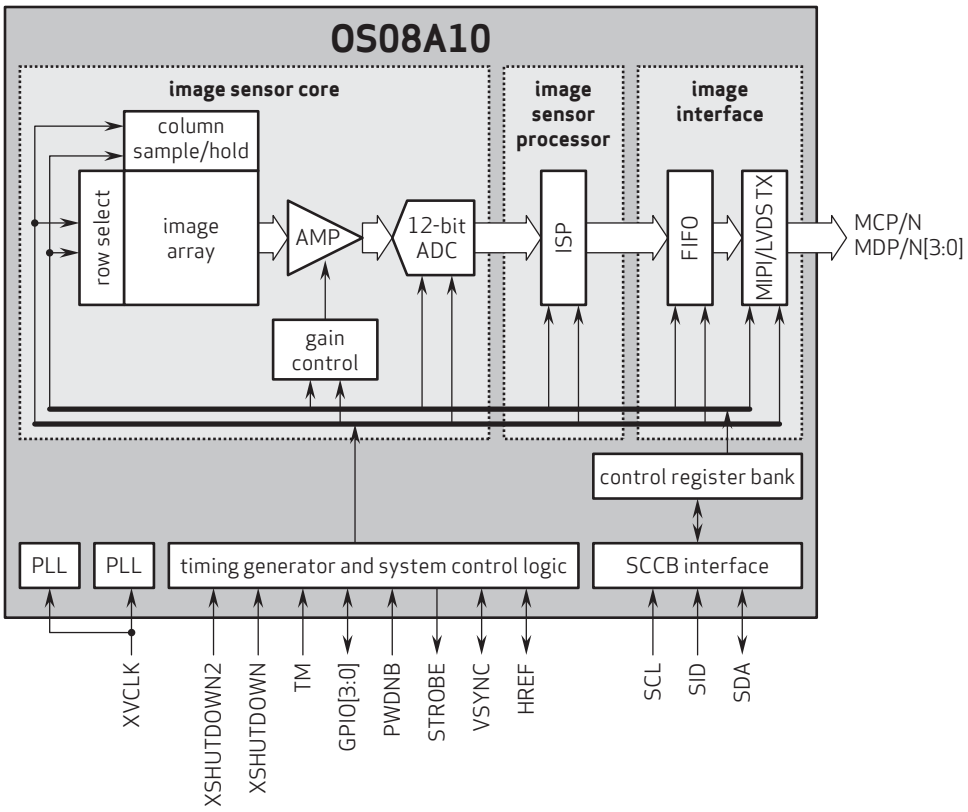
Product Features

- 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

Product Specifications

- **active array size:** 3840 x 2160
- **power supply:**
  - **core:** 1.2V
  - **analog:** 2.8V
  - **I/O:** 1.8V
- **power requirements:**
  - **active:** 240 mA
  - **XSHUTDOWN:** <10 µA
- **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"
- **input clock frequency:** 6 - 27 MHz
- **lens chief ray angle:** 11° linear
- **max S/N ratio:** 39 dB
- **dynamic range:** 74 dB @ 16x gain
- **maximum image transfer rate:**
  - **4K2K:** 60 fps
  - **2560 x 1440:** 60 fps
  - **1080p:** 120 fps
- **sensitivity:** 13,000 e⁻/Lux-sec
- **scan mode:** progressive
- **maximum exposure interval:** VTS-8
- **pixel size:** 2.0 µm x 2.0 µm
- **image area:** 7736.256 µm x 4379.616 µm
- **package dimensions:**
  - **CSP:** 8929.2 µm x 6330 µm

Functional Block Diagram



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