



OS08C10

8-Megapixel Product Brief



4K2K Resolution PureCel®Plus-S CMOS Image Sensor for Home and Professional Security Cameras

The OS08C10 is an 8-megapixel (MP) backside illuminated (BSI) CMOS image sensor that features both staggered high dynamic range (HDR) and single exposure dual analog gain (DAG) for high-performance imaging in challenging lighting conditions. The 1.449-micron (μm) BSI pixel supports 4K2K resolution and high frame rates. The OS08C10 comes in a small 1/2.820-inch optical format for home and professional security, IoT and action cameras.

The OS08C10 captures real-time 4K video at 60 frames per second (fps) with minimal artifacts. Its selective conversion gain (SCG) pixel design allows the sensor to flexibly select low and high conversion gain, depending on the

lighting conditions. The sensor adopts the new correlated multi-sampling (CMS) to further reduce readout noise and improve SNR1 and low-light performance. The OS08C10's on-chip defective pixel correction (DPC) improves quality and reliability above and beyond standard devices by providing real-time correction of defective pixels that can result throughout the sensor's life cycle, especially in harsh operating conditions.

The OS08C10 is built on OMNIVISION's PureCel®Plus-S stacked-die technology, enabling high-resolution 8MP in a small pixel. At 300 mW (60 fps), the OS08C10 achieves the lowest power consumption on the market.

Applications

- Security cameras
- Action cameras
- High resolution consumer cameras

Features

- **Active array size:** 3840 x 2160
- **Maximum image transfer rate:**
 - 3840 x 2160: 60 fps (10-bit)
 - 3840 x 2160: 48 fps (12-bit)
 - 3840 x 2160: 30 fps (12/14-bit DAG HDR mode)
- **Power supply:**
 - Analog: 2.8V
 - Digital: 1.2V
 - I/O pins: 1.8V
- **Output interfaces:** 4-lane LVDS/4-lane MIPI
- **Output formats:** 10/12/14-bit RAW
- **Lens size:** 1/2.820"
- **Pixel size:** 1.449 μm x 1.449 μm

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