OS04D10-1C

4-Megapixel Product Brief

High-Performance, Low-Power 2K 4-Megapixel CMOS Image Sensor for Consumer Security and Surveillance Cameras

The OS04D10-1C is a 4-megapixel (MP) image sensor that brings 2K resolution digital images and high-definition (HD) video at 30 frames per second (fps) to IP and HD analog security cameras, including smart home, doorbell and baby monitoring devices. The OS04D10-1C CMOS image sensor utilizes a high-performance backside-illuminated (BSI) pixel while also providing 40% power consumption savings, as well as improvements of over 30% in signal-to- noise ratio (SNR1) and 40% in sensitivity when compared with its predecessor.

The OS04D10-1C image sensor's 2.0-micron (µm) BSI pixel is based on OMNIVISION's PureCel®Plus technology and enables higher sensitivity, ultra-low noise and better overall image quality. Select conversion gain (SCG) allows the sensor to flexibly select low and high conversion gain depending on the lighting conditions. On-chip auto explorer control (AEC) and auto gain control (AGC) further accelerate system-on- chip (SoC) booting time. Low power consumption is beneficial for battery operated devices, especially doorbell security cameras. It comes in a cost-effective 1/3.067-inch optical format and is pin-to-pin compatible with OMNIVISION's OS04L image sensor as well as other new products that will be launched in the future.

The OS04D10-1C supports MIPI interfaces.

Applications

- Security surveillance systems
- IP cameras
- HD analog cameras

Features

- **Active array size:** 2560 x 1440
- **Maximum image transfer rate:**
  - 2568 x 1448: 30 fps
- **Power supply:**
  - Analog: 2.8V
  - I/O: 1.8V
  - Core: 1.2V
- **Output interface:** 10-bit 2-lane MIPI
- **Output format:** 10-bit RAW RGB
- **Lens size:** 1/3.067"
- **Pixel size:** 1.998 µm x 1.998 µm

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