OS04L

4 megapixel product brief

4 Megapixel Image Sensor with OmniPixel®3-HS Provides High Resolution in a Small Package for Smart Home Security Cameras

The OS04L CMOS 4 megapixel (MP) image sensor brings 2K resolution digital images and high-definition (HD) video to consumer security devices, including smart home, doorbell, baby monitor, IP, and HD analog cameras. The OS04L sensor provides OEMs with a cost-effective upgrade path for their camera resolution to go from 2 or 3MP to 4MP with a smaller pixel sensor in a 1/3-inch optical format.

The OS04L image sensor features a 2.0-micron pixel based on OMNIVISION's OmniPixel®3-HS technology. This high-performance, cost-effective solution uses high-sensitivity frontside illumination (FSI) for true-to-life color reproduction in both bright and dark conditions.

The OS04L image sensor features 2K resolution at 30 frames per second and has 2x2 binning for enhanced sensitivity. It supports MIPI interfaces.

Find out more at www.ovt.com.

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Applications

- security surveillance systems
- IP cameras
- HD analog cameras

Product Features

- programmable controls:
  - frame rate
  - mirror and flip
  - cropping
  - windowing
- supports 2x2 color binning function
- support for output formats:
  - 10-bit 2-lane MIPI
- SCCB control interface
  for register programming
- supports MIPI serial output
  interface (1-lane/2-lane)
- dynamic DPC
- supports image sizes:
  - 2568 x 1448 @ 30 fps
- supports automatic black level
  calibration
- supports multi-camera
  synchronous function

Technical Specifications

- **active array size:** 2560 x 1440
- **maximum image transfer rate:**
  - 2568 x 1448: 30 fps
- **power supply:**
  - core: 1.5V
  - analog: 2.8V
  - I/O: 1.8V
- **temperature range:**
  - operating: –30°C to +85°C
    junction temperature
  - stable: –20°C to +60°C
    junction temperature
- **output interfaces:**
  10-bit 2-lane MIPI
- **output formats:**
  10-bit RGB RAW
- **lens size:** 1/3"
- **lens chief ray angle:** 12° linear
- **shutter:** rolling
- **pixel size:** 2.0 µm x 2.0 µm
- **image area:** 5136 µm x 2896 µm

Functional Block Diagram

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