

OV08X

9.2-Megapixel Product Brief



OV08X CMOS Image Sensor Brings High Dynamic Range 4K Video Conferencing to Laptop PCs

The OV08X is a 9.2-megapixel (MP) CMOS image sensor with pixel size of 0.702-micron, enabling 4K resolution in a 1/5.66-inch optical format. The OV08X can be used in the most stringent 4 mm y-dimension module laptops with 16:10 (1920 x 1200) aspect ratio monitors.

The OV08X is the first image sensor for the laptop market to integrate a 4-cell color filter array and on-chip hardware remosaic, providing high-quality, 9.2MP Bayer output in real time.

The OV08X enables new autoframing and human presence detection (HPD) features.

The OV08X is built on OMNIVISION's PureCel®Plus-S stacked-die technology for a small module footprint. It outputs 4K video at 30 frames per second and utilizes 4-cell pixel binning with two-exposure staggered HDR timing to minimize motion artifacts and capture crisp, clear video in difficult lighting conditions.

The OV08X is built with a low-power image signal processor to provide leading-edge light sensing mode and ultra-low power to maximize battery life.

Applications

- Notebooks and PCs
- Tablets, detachables, and 2-in-1s
- Video conferencing
- Smartphones and feature phones

Features

- **Active array size:** 3840 x 2400
- **Maximum image transfer rate:**
  - 3840 x 2400: 30 fps
- **Power supply:**
  - Core: 1.1V
  - Analog: 2.8V (2.7V ~ 3.0V)
  - I/O: 1.2V (1.1V ~ 1.3V) or 1.8V (1.7V ~ 1.9V)
- **Output interfaces:**
  - MIPI serial output interface
  - 2-wire serial output selectable in ULP mode
- **Output formats:**
  - 10-bit 4C RGB RAW
  - 8/10-bit RGB Bayer RAW
  - 8-bit B&W RAW
- **Lens size:** 1/5.66"
- **Pixel size:** 0.702 µm x 0.702 µm

Version 1.1, October 2026

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