



OX08D10

8-Megapixel Product Brief



Automotive CMOS Image Sensor with TheiaCel™ Technology Eliminates LED Flicker in Exterior Cameras

The OX08D10 is an 8-megapixel (MP) automotive CMOS image sensor that combines all of the most important features, including low-light performance, LED flicker mitigation (LFM), high dynamic range (HDR), small size and low power, eliminating the need for automotive OEMs to make performance / design compromises to address LED flicker. It is the first image sensor to feature OMNIVISION's new 2.1-micron (μm) TheiaCel™ technology, which harnesses the capabilities of next-

generation lateral overflow integration capacitors (LOFIC) and OMNIVISION's DCG™ high dynamic range (HDR) technology to eliminate LED flicker regardless of lighting conditions.

The new OX08D10 achieves overall superior performance in key areas compared to its non-LOFIC-based predecessor – in particular, its LFM dynamic range is 3.3x higher and total dynamic range nearly 3x higher.

Applications

- High resolution front viewing
- Machine vision
- Autonomous driving
- Digital video recording

Features

- **Active array size:** 3840 x 2160
- **Maximum image transfer rate:**
 - 45 fps @ 3840 x 2160
- **Power supply:**
 - Analog: 3.3V
 - Digital: 1.1V
 - I/O pads: 1.8/3.3V
- **Output interfaces:** Up to 4-lane MIPI CSI-2
- **Output formats:** Uncompressed 24-bit (HDR4)/20-bit (HDR3), and 20/16/14/12-bit (PWL) combined HDR
- **Lens size:** 1/1.729"
- **Pixel size:** 2.1 μm x 2.1 μm

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