



# OX03H10

## 3-Megapixel Product Brief



## OX03H10 Image Sensor with TheiaCel™ Technology Brings Unparalleled Clarity to Automotive Viewing Cameras

The 3-megapixel (MP)-resolution OX03H10 CMOS image sensor has excellent low-light performance and unrivalled LED flicker mitigation (LFM) by utilizing a single exposure to generate the entire 140 dB dynamic range. This is achieved using TheiaCel™ technology, which harnesses the capabilities of lateral overflow integration capacitor (LOFIC) technology, together with OMNIVISION's proprietary single-exposure DCG™ and split pixel high dynamic range (HDR) technology, to enable superior image quality regardless of lighting conditions.

At 1920 x 1536 resolution, the OX03H10 features 60 frames per second (fps) and has low power consumption. The 3.0  $\mu\text{m}$  pixel is based on PureCel®Plus-S stacking technology for the smallest pixel and highest resolution in a 1/2.44-inch optical format. It comes in a small a-CSP™ package size and is pin-to-pin compatible with OMNIVISION's OX03F10 automotive image sensor for seamless upgrades. The OX03H10 meets ASIL C functional safety regulations, features cyber-security and has a MIPI output interface.

The OX03H10 is available for sampling now and will be in mass production in the second half of 2025.

### Applications

- Surround view systems (SVS)
- Rear view cameras
- Autonomous driving
- E-mirrors

### Features

- **Active array size:** 1920 x 1536
- **Maximum image transfer rate:**
  - 60 fps @ 1920 x 1536
- **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, 20/16/14/12-bit (PWL) combined HDR (4 captures)
- **Lens size:** 1/2.44"
- **Pixel size:** 3  $\mu\text{m}$  x 3  $\mu\text{m}$

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