



OX12A10

12-Megapixel Product Brief



12MP Automotive Image Sensor Features TheiaCel™ Technology for LED-Flicker-Free Exterior Cameras

The OX12A10 12-megapixel (MP)-resolution CMOS image sensor features industry-leading low power and lowlight performance in a compact size. It is the first 12MP image sensor to feature OMNIVISION's 2.1-micron (μm) TheiaCel™ technology, which harnesses the capabilities of next generation lateral overflow integration capacitors (LOFIC), together with OMNIVISION's DCG™ high dynamic range (HDR) technology, to eliminate LED flicker regardless

of lighting condition – and without sacrificing image quality. The OX12A10 is ideal for high-performance front machine vision cameras for advanced driver assistance systems (ADAS) and autonomous driving (AD).

The new OX12A10 features OMNIVISION's new a-CSP+™ package technology for the smallest possible solution. Samples are available now.

Applications

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

Features

- **Active array size:** 4624 x 2600
- **Maximum image transfer rate:**
 - 30 fps @ 4624 x 2600
- **Power supply:**
 - Analog: 3.3V
 - Digital: 1.1V
 - I/O pins: 1.8V or 3.3V
- **Output interfaces:** Up to 4-lane MIPI CSI-2
- **Output formats:** 10-bit RGB RAW
- **Lens size:** 1/1.43"
- **Pixel size:** 2.1 μm x 2.1 μm

Version 1.1, September 2025