



OX03G10

3-Megapixel Product Brief



3MP RGGB High Dynamic Range (HDR) CMOS Image Sensor with PureCel®Plus Technology for Automotive Applications

The OX03G10 is a 1/2.44-inch optical format, 1920 x 1536 single-chip, low power, high dynamic range (HDR) CMOS image sensor for both human vision and machine vision automotive applications. The OX03G10 is a high performance SoC with 3.0 μm DCG pixel targeted for viewing applications.

The OX03G10 features PureCel®Plus technology to extend the dynamic range. The on-chip AEC/AGC automatically adjusts the ratio of the exposure and gain of the different exposure channels based on the dynamic range of the scene. The fully processed output provides the optimized HDR rendering for human vision applications.

The OX03G10 performs sophisticated camera functions on-chip controlled via the serial camera control bus (SCCB) interface. These functions include lens shading correction, auto white balance (AWB), HDR combination, defect pixel correction (DPC), piece-wise linear (PWL), color interpolation and correction, de-noise and sharpening, and gamma correction.

The OX03G10 enables advanced low light HDR imaging with super low power consumption, making for a simple, cost effective system.

Applications

- 360° surround view systems
- Rear view cameras
- Camera monitoring systems (CMS)

Features

- **Active array size:** 1920 x 1536
- **Maximum image transfer rate:** 30 fps @ 1920 x 1536 (combined HDR in YUV422/RGB888 + 16/14/12-bit (PWL) RAW combined HDR)
- **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:** YUV422/RGB888, uncompanded 24-bit or 20/16/14/12-bit (PWL) RAW, or YUV422/RGB888 + 16/14/12-bit (PWL) RAW
- **Lens size:** 1/2.44" for 1920 x 1536 image size
- **Pixel size:** 3.0 μm x 3.0 μm

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