

OV12E10

12-Megapixel Product Brief



1/3.543" RGGB 12MP CMOS Image Sensor with PureCel®Plus-S Technology for Smart Glasses and Computing Applications

The 12-megapixel OV12E10 is a RAW RGB 1/3.543-inch optical format, high performance CMOS image sensor that delivers 4032 x 3024 at 60 frames per second (fps) in 10-bit for smartphones, smart glasses, and computing applications.

It provides full-frame, sub-sampled, and windowed 8/10/12-bit MIPI images in various formats via the control of the serial camera control bus (SCCB) interface.

The OV12E10 provides complete user control over image quality, formatting, and output data transfer. Some image processing functions, such as defective pixel canceling, etc., are programmable through the SCCB interface.

In addition, OMNIVISION CMOS image sensors use proprietary PureCel®Plus-S technology to improve image quality by reducing or eliminating common lighting/electrical sources of image contamination, such as fixed pattern noise, smearing, etc., to produce a clean, fully stable, color image.

The OV12E10 has a MIPI interface of up to four lanes.

Applications

- Smartphones
- Smart glasses
- PC multimedia

Features

- **Active array size:** 4032 x 3024
- **Maximum image transfer rate:**
  - 4032 x 3024: 60 fps (10-bit)
  - 4032 x 3024: 30 fps (DAG 12/14-bit)
  - 2016 x 1512: 240 fps (10-bit)
- **Power supply:**
  - Core: 1.2V
  - Analog: 2.8V
  - I/O: 1.2V (1.1V~1.2V) or 1.8V (1.7V~1.9V)
- **Output interfaces:** Up to 4-lane MIPI
- **Output formats:** 8-bit RAW, 10/12-bit RGB RAW, 12/14-bit DAG HDR combine
- **Lens size:** 1/3.543"
- **Pixel size:** 1.008 µm x 1.008 µm

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OMNIVISION®

4275 Burton Drive
Santa Clara, CA 95054
USA

Tel: + 1 408 567 3000
Fax: + 1 408 567 3001
www.ovt.com

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