OG09B10

1.5-Megapixel Product Brief

1/2.905" Color 9-Megapixel (3024 x 3024) CMOS Image Sensor with PureCel®Plus-S Technology for AR/VR Cameras

The OG09B10 color CMOS image sensor is a 1/2.905-inch optical format, 3024 x 3024 single-chip, active-pixel, digital high dynamic range sensor, intended for the AR/VR, security and consumer market. It supports foveated output and perfect for video-see-through use case.

The OG09B10 features OMNIVISION's PureCel®Plus-S and rolling shutter technologies to extend the dynamic range. The OG09B10 has the option to output up to 114 fps video linear mode and 60 fps video HDR mode from a single exposure (DAG).

The OG09B10 performs sophisticated camera functions on-chip controlled via both the serial camera control bus (SCCB) and I3C interfaces. These functions include black level calibration (BLC) and defect pixel correction (DPC).

The OG09B10 enables advanced HDR imaging in a simple, cost effective system using the on-chip HDR recombination engine.

Applications

- AR/VR cameras
- Security cameras

Features

- **Active array size:** 3024 x 3024
- **Maximum image transfer rate:**
  - Full size: 114 fps @ 10-bit C-PHY
  - Full size: 100 fps @ 10-bit D-PHY
  - Full size DAG HDR mode: 60 fps @ 12/14-bit
- **Power supply:**
  - Analog: 2.8V
  - Digital: 1.1V
  - I/O pins: 1.8V
- **Output interfaces:**
  4-lane D-PHY / 3-trio C-PHY MIPI
- **Output formats:** 10/12/14-bit RAW
- **Lens size:** 1/2.905"
- **Pixel size:** 1.449 µm x 1.449 µm

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