

OV02K

2-Megapixel Product Brief



2.9 µm CMOS Image Sensor Enables High-Quality, Low-Light Video for Smartphones

OMNIVISION's OV02K is a video-centric, 2.9 µm 1080p CMOS image sensor designed for smartphones.

Built on OMNIVISION's PureCel®Plus-S pixel technology, the OV02K allows the secondary camera in multi-camera configurations to capture high-quality videos, even in very low ambient light conditions. With the increasing demand from smartphone users for high-quality video, particularly for social media sharing, the OV02K is perfect for capturing super-high-quality video captures even in a wide variety of environments.

The OV02K's 2.9-micron pixel size imparts it with greater sensitivity and very low noise, resulting in an SNR10 of less than 10 lux.

The OV02K comes in a 1/2.804" optical format, features 1080p resolution at up to 120 frames per second (fps), suitable for either standard or slow-motion video capture. It also supports up to three exposures of staggered timing to enable high dynamic range (HDR), and supports frame-to-frame dual conversion gain (DCG™).

Applications

- Smartphones
- Dual cameras
- Action / IoT cameras

Features

- **Active array size:** 1920 x 1080
- **Maximum image transfer rate:**
  - 1920 x 1080: 40x3 fps (10-bit)
  - 1920 x 1080: 30x3 fps (12-bit)
- **Power supply:**
  - Analog: 2.8V
  - Digital: 1.1V
  - I/O pads: 1.8V
- **Output interfaces:**
  Up to 4-lane MIPI CSI-2 or LVDS
- **Output formats:**
  - Linear output
  - Dual exposure HDR (long and short)
  - 3-exposure HDR (long, short, and very short)
  - Conversion gain programmable in each channel
- **Lens size:** 1/2.804"
- **Pixel size:** 2.9 µm x 2.9 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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