



# OV5693

## 5-Megapixel Product Brief



## High-Performance 5-Megapixel Image Sensor for Front-Facing Cameras in Flagship Smartphones and Tablets

The OV5693 is OMNIVISION's highest performance 1/4-inch, 5-megapixel image sensor, delivering DSC-quality imaging and low-light performance as well as full 1080p high-definition video recording at 30 frames per second (fps). Using OMNIVISION's proprietary 1.4-micron OmniBSI™-2 pixel architecture, the OV5693 provides best-in-class low-light performance and image quality in a slim camera module. This makes the OV5693 an ideal camera solution for slim flagship smartphones and tablets, providing exceptional 5-megapixel "selfie" images and high-quality 1080p video.

Leveraging OMNIVISION's second-generation industry-leading backside illumination pixel technology, the OV5693 offers full resolution

5-megapixel images at 30 fps, an integrated scaler, and 2x2 binning functionality with re-sampling filter. The scaler enables electronic image stabilization, while maintaining full field-of-view in both 720p and 1080p HD video modes. The 2x2 binning functionality, which features a post-binning re-sampling filter, further increases the sensor's sensitivity, while minimizing spatial artifacts and removing image artifacts around edges to produce crisp, clean color images.

The sensor features a high-speed 2-lane MIPI interface running up to 900 Mbps per lane and fits into an industry standard module size of 8.5 mm x 8.5 mm with a z-height of 4.2 mm for an autofocus module.

### Applications

- Mobile phones
- PC multimedia
- 3D camera

### Features

- **Active array size:** 2592 x 1944
- **Maximum image transfer rate:**
  - 5MP (2592 x 1944): 30 fps
- **Power supply:**
  - Core: 1.16 ~ 1.3V (1.2V typ)
  - Analog: 2.6 ~ 3.0V
  - I/O: 1.7 ~ 3.0V
- **Output interfaces:** Up to 2-lane MIPI serial
- **Output formats:** 10-bit RGB RAW
- **Lens size:** 1/4"
- **Pixel size:** 1.4  $\mu\text{m}$  x 1.4  $\mu\text{m}$

Version 1.3, August 2025