



OV16A

16-Megapixel Product Brief



Cost-Effective 16MP CMOS Image Sensor for Rear- and Front-Facing Cameras on Mainstream Smartphones with Thin Bezels

OMNIVISION's OV16A is an affordable 16-megapixel image sensor that enables smartphone cameras to capture higher quality photos. This versatile image sensor, built on OMNIVISION's PureCel®Plus-S 1.0-micron advanced pixel architecture, allows better autofocus for mainstream smartphones. With the OV16A, manufacturers can add a third camera for high-quality, ultra-wide-angle photos in high-end smartphones. Additionally, the OV16A extends battery life with the industry's lowest power consumption—10% lower than the nearest competitor's 16MP 1.0-micron sensor. Space limiting thin-bezel smartphone designs require compact front-facing cameras. The OV16A allows

designers to incorporate just such a camera in the bezel, and with 2.0-micron-equivalent pixel performance.

The OV16A's 4-cell color filter allows users to consistently capture high-quality photos without motion blur, even in low-light conditions indoors. Its compact size enables the industry's smallest fixed-focus camera modules, with dimensions down to 6.5 mm x 6 mm. Additionally, its top and bottom pad configuration allows thin-bezel designs for full-display selfie screens. The OV16A's 2x1 microlens phase detection autofocus (ML-PDAF) boosts autofocus accuracy, especially in low light.

Applications

- Mobile smart phones
- Video conferencing
- PC multimedia

Features

- **Active array size:** 4656 x 3496
- **Maximum image transfer rate:**
 - 4656 x 3496: 30 fps
 - 3840 x 2160: 45 fps
 - 1920 x 1080: 90 fps
- **Power supply:**
 - Core: 1.2V
 - Analog: 2.8V
 - I/O: 1.8V
- **Output interfaces:** Up to 4-lane MIPI
- **Output formats:** 10-bit RGB RAW
- **Lens size:** 1/3.06"
- **Pixel size:** 1.008 μm x 1.008 μm

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