## imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# High Quality 1/4-inch 5-Megapixel Selfies for Next-Generation Smartphones and Tablets

available in a lead-free package

OmniVision's new 1/4-inch OV5695 is a high performance and cost-effective 5-megapixel OmniBSI+<sup>™</sup> sensor designed to be a cost-competitive camera solution for both front- and rear-facing camera applications in smartphones and tablets. The OV5695 features an improved design that offers superior image and video quality in a more compact, power-efficient package.

The OV5695 utilizes 1.4-micron OmniBSI+ pixel architecture to capture full resolution video in a native 4:3 aspect ratio at 30 fps or 1080p video at 60 fps with support for interleave row high dynamic range (iHDR).

The sensor's exceptional low-light sensitivity enhances image and video quality when recording in low-light conditions, and reduces user dependence on the device's front-facing flash functionality.

The OV5695 fits into an 8.5 x 8.5 mm module with a z-height of approximately 4.4 mm.

Find out more at www.ovt.com.





#### Applications

- Smartphones and Feature Phones
- PC Multimedia
- Tablets Wearables

#### **Product Features**

- 1.4 µm x 1.4 µm pixel
- 5MP at 30 fps
- programmable controls for:
  frame rate - mirror and flip cropping
   windowing
- supports images sizes:
  5MP (2592x1944) - quad HD (2560x1440) - 1080p (1920x1080) - 720p (1280x720)
  - VGA (640 x 480), and more
- 16 bytes of embedded one-time programmable (OTP) memory for customer use

- ultra low power mode (ULPM)
- support for output formats: 10-bit RGB RAW
- interleave row HDR output
- two-wire serial bus control (SCCB)
- MIPI serial output interface (1- or 2-lane)
- 2x binning support
- image quality control: - defect pixel correction - automatic black level calibration
- - XSHUTDN: 36 µW
  - operating: -30°C to +70°C junction temperature - stable image: -20°C to +60°C junction 🛛 dark current: 15 e<sup>-</sup>/sec
  - temperature
  - 2-lane MIPI serial output
  - output formats: 10-bit RGB RAW

- OV05695-GA4A-1B
  - (color, chip probing, 200 µm backgrinding, rev 1B, reconstructed wafer)

### **Product Specifications**

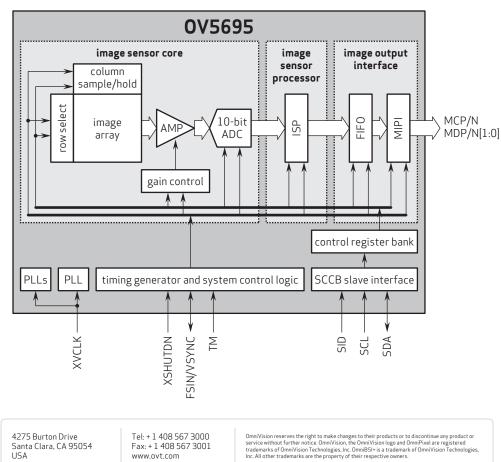
- active array size: 2592 x 1944
- power supply:
  core: 1.14 1.26V (1.2V nominal)
  analog: 2.7 3.0V (2.8V nominal)
  I/0: 1.7 1.9V (1.8V nominal)
- power requirements:
   active: 155 mW
   standby: 61 µW
- temperature range:
- output interface:

- lens chief ray angle: 31.08° non-linear ■ input clock frequency: 6 - 27 MHz
- maximum image transfer rate:
   5MP (2592x1944): 30 fps
   quad HD (2560x1440): 30 fps
   1080p (1920x1080): 60 fps
   720p (1280x720): 60 fps
   VGA (640x480): 120 fps
- pixel size: 1.4 µm x 1.4 µm

■ lens size: 1/4"

- @ 60°C junction temperature
- image area: 3684 μm x 2763 μm
- dimensions: - COB: 5022 μm x 3933 μm - RW: 5072 µm x 3983 µm

### Functional Block Diagram





OV5695