Chipsmall

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!
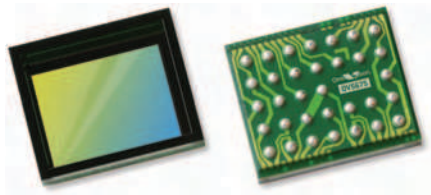
Contact us

OV5675 5-megapixel product brief

The Industry's Smallest 5-Megapixel PureCel®
Sensor for Smartphones and Tablets

lead free

available in
a lead-free
package

OmniVision's high performance OV5675 is a 5-megapixel PureCel sensor designed to bring high quality imaging capabilities to front- and rear-facing cameras in smartphones and tablets. The industry's smallest 5-megapixel currently available, the cost-effective OV5675 offers dramatically improved image and video quality in a compact and power-efficient package.

The 1/5-inch sensor can capture full resolution 5-megapixel images in a native 4:3 aspect ratio at 30 frames per second (fps), or 720p high definition (HD) and 1080p video at 60 fps. Additionally, the OV5675 supports ultra-low power mode, which enables QVGA video recording at 30 fps while requiring less than 25 mW.

The OV5675 fits into a compact 5.5 x 5.5 x 3.5 mm module.
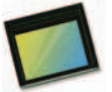
Find out more at www.ovt.com.

OmniVision.

Applications

- Smartphones and Feature Phones
- PC Multimedia
- Tablets
- Wearables

Product Features

- 1.12 μm x 1.12 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 (640x480), and more
- 260 bytes of embedded one-time programmable (OTP) memory for customer use
- 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:
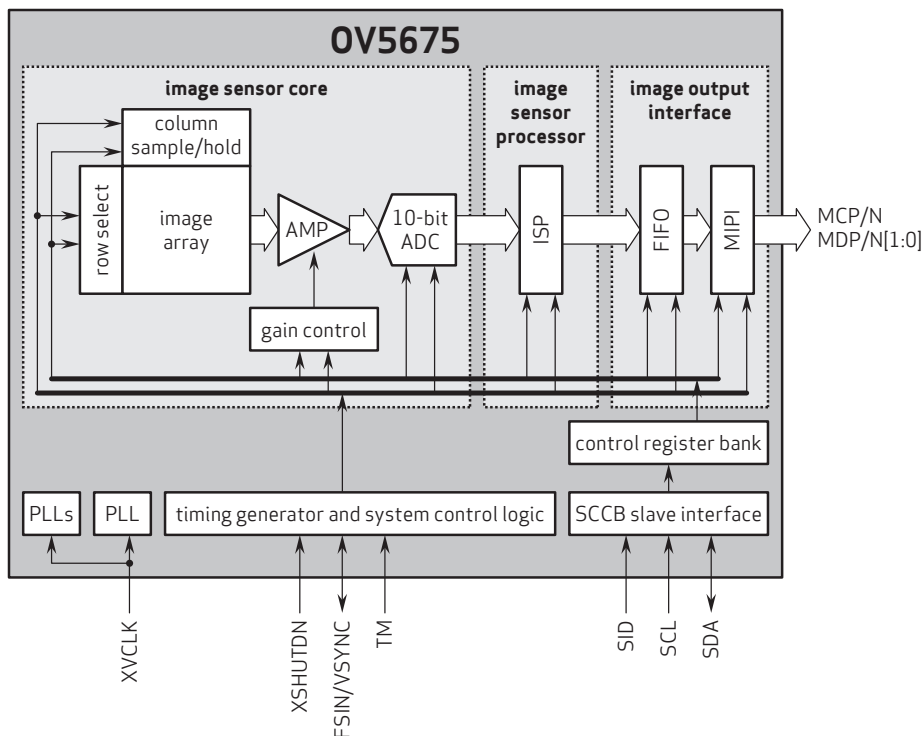 - defect pixel correction
  - automatic black level calibration

Product Specifications

- **active array size:** 2592 x 1944
- **power supply:**
  - **core:** 1.14 - 1.26V (1.2V nominal)
  - **analog:** 2.6 - 3.0V (2.8V nominal)
  - **I/O:** 1.7 - 1.9V (1.8V nominal)
- **power requirements:**
  - **active:** 96 mW
  - **standby:** 165 μW
  - **XSHUTDN:** 1 μW
- **temperature range:**
  - **operating:** -30°C to +85°C junction temperature
  - **stable image:** -20°C to +60°C junction temperature
- **output interface:** 2-lane MIPI serial output
- **output formats:** 10-bit RGB RAW
- **lens size:** 1/5"
- **lens chief ray angle:** 31.24° 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
- **sensitivity:** 530 mV/lux-sec
- **max S/N ratio:** 35.7 dB
- **dynamic range:** 69.7 dB @ 16x gain
- **pixel size:** 1.12 μm x 1.12 μm
- **dark current:** 6 e-/sec @ 60°C junction temperature
- **image area:** 2928.384 μm x 2205.216 μm
- **dimensions:**
  - **COB:** 3771 μm x 3226.5 μm
  - **RW:** 3821 μm x 3276.5 μm

Functional Block Diagram