

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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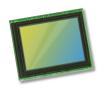
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## OV9674 1.3MP product brief





# OV9674 CameraChip™ Sensor Delivers 1.3-Megapixel High Definition Imaging to Advanced Consumer Video Applications

OmniVision's OV9674 is a high definition (HD) OmniBSI™ image sensor designed for advanced consumer video imaging applications such as dashboard camera recorders and DIY vehicle camera systems. The OV9674 captures clear 1.3-megapixel HD images and video at 30 frames per second (fps) in a wide range of lighting conditions. The OV9674 enables advanced imaging functionality such as high dynamic range (HDR), lens shading correction, and de-noise.

Built on a 4.2-micron OmniBSI™ pixel, the OV9674 supports high quality output in a variety of RAW formats and enables high speed serial data transfer with MIPI CSI-2, parallel 12-bit DVP output. Featuring a 1/2.56-inch optical format, the OV9674 fits into a 7.43 mm x 7.19 mm chip scale package (CSP) and operates at commercial temperature grade from -30°C to +85°C.

Find out more at www.ovt.com.





## **Applications**

■ Security and Surveillance Cameras

## OV9674



#### **Product Features**

- support for image size: 1280x1080, VGA, QVGA and any cropped size
- OmniHDR-S<sup>™</sup> technology
- high sensitivity
- safety features
- low power consumption
- image sensor processor functions: automatic exposure/gain control, lens correction, defective pixel cancelation, HDR combination and tone mapping, automatic black level correction
- supported output formats: RAW
- horizontal and vertical sub-sampling
- serial camera control bus (SCCB) for register programming
- high speed serial data transfer with MIPI CSI-2, parallel 12-bit DVP output
- external frame synchronization capability

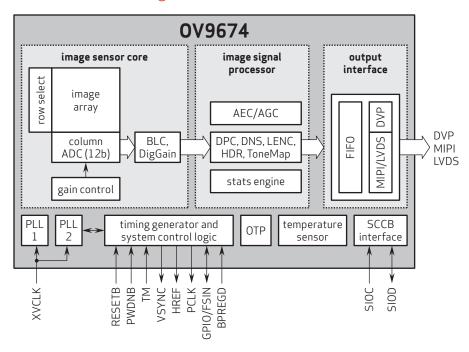
■ 0V09674-N78A (color, lead-free, 78-pin CSP, packed in tray)

## **Product Specifications**

- active array size: 1280 x 1080
- power supply:
  analog: 3.14 3.47V
  digital: 1.425 1.575V
  DOVDD: 1.7 1.9V
  AVDD: 1.7 1.9V
- power requirements: active: 250 mW
- standby: 100 µW
- temperature range:
- operating: -30°C to +85°C junction temperature
- stable image: 0°C to +50°C junction temperature
- output interfaces: 12-bit DVP, MIPI/LVDS CSI-2
- 20-bit combined RAW 12-bit compressed combined RAW
- separated 12-bit RAW
- 2x12-bit compressed RAW 16-bit log domain combined RAW
- 3x12-bit uncompressed RAW

- lens size: 1/2.56"
- lens chief ray angle: 9°
- input clock frequency: 6 27 MHz
- scan mode: progressive
- shutter: rolling shutter
- maximum image transfer rate: 30 fps full resolution
- sensitivity: 8.4 V/lux-sec
- max S/N ratio: 41.5 dB
- dynamic range: 120 dB
- **pixel size:** 4.2 μm x 4.2 μm
- image area: 5410 µm x 4570 µm
- package dimensions: 7430 µm x 7190 µm

## Functional Block Diagram



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