

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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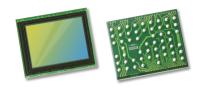
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## 0V9752 720p HD product brief





available in a lead-free package

# High Performance CameraChip™ Sensor with RGB-IR Color Filter for Advanced Security Applications

OmniVision's OV9752 CameraChip™ captures high quality (HD) images and video in 1280 x 960 pixel resolution as well as infrared information, providing excellent scene reproduction regardless of lighting conditions. These benefits make the OV9752 an ideal camera solution for security systems designed to record during day and night.

The OV9752 replaces the traditional mechanical rotary filter with an RGB-IR dual band color filter to simplify design, reduce package footprint, and capture extremely high quality infrared images and video.

Built on the 3.75-micron OmniPixel3-HS™ pixel architecture, the OV9752 delivers excellent results whether recording visible light or infrared, capturing

clear images and video in high, low, and "no" light environments. The sensors can capture in  $1280 \times 960$  pixel resolution video at 60 frames per second (fps) with 10-bit output, or at 45 fps with 12-bit output. Additionally, the 0V9752 features an ultra-low power mode, which allows the sensor to reduce the resolution and frame rates, thus further reducing power consumption.

The OV9752 fits into a 6.3 x 5.2 mm package.

Find out more at www.ovt.com.





### **Applications**

- Security and Surveillance Cameras
- PC Multimedia
- Wearables
- 960H for Analog CCTV Applications

## OV9752



### **Product Features**

- RGB-IR color filter
- 3.75 µm x 3.75 µm pixel
- 1280x960 at 60 fps @ 10-bit, 45 fps @ 12-bit
- programmable controls for frame rate, mirror and flip, cropping, and windowing 2x binning support
- supports images sizes: SXGA (1280 x 960), VGA (640 x 480), and more
- 2k bits of embedded one-time programmable (OTP) memory
- ultra low power mode (ULPM)

- support for output formats: 10/12-bit RGB-IR RAW
- two-wire serial bus control (SCCB)
- MIPI serial output interface (1- or 2-lane) / DVP interface
- image quality control: defect pixel correction and automatic black level calibration

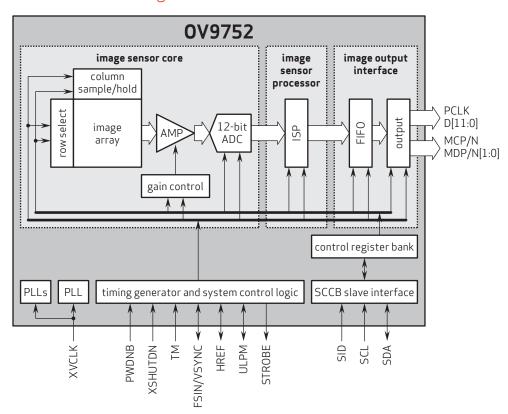
■ 0V09752-H55A (RGB-IR, lead-free, 55-pin CSP5)

### **Product Specifications**

- active array size: 1280 x 960
- power supply:
   core: 1.7 to 1.9V (1.8V nominal)
   analog: 3.15 to 3.45V (3.3V nominal)
   I/O: 1.7 to 1.9V (1.8V nominal)
- power requirements: active: 165 mW
- temperature range:
  operating: -30°C to +85°C junction temperature
  - stable image: 0°C to +60°C junction
- output interface: 2-lane MIPI serial output / DVP parallel output

- output formats: 10/12-bit RGB-IR RAW
- lens size: 1/3"
- lens chief ray angle: 9° linear
- input clock frequency: 6 74.5 MHz
- maximum image transfer rate:
   SXGA (1280x960): 60 fps
   VGA (640x480): 120 fps
- **pixel size:** 3.75 μm x 3.75 μm
- image area: 4860 µm x 3660 µm
- die dimensions:  $6254~\mu m \times 5194~\mu m$

### Functional Block Diagram



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