



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!



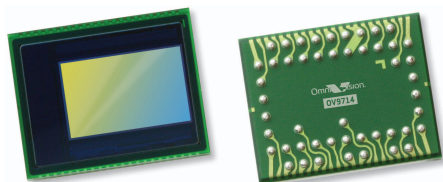
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OV9714 720p product brief



Native High Definition OV9714 CameraChip™ With Improved Dynamic Range and 720p/60 Video



available in
a lead-free
package

The 1/4-inch OV9714 is a native high-definition (HD) image sensor capable of capturing high quality 720p video at 60 frames per second (fps) or cropped VGA at 120 fps. Built on an enhanced OmniPixel3-HS™ pixel, the OV9714 combines excellent low-light performance of 3300 mV/lux-sec and high dynamic range (HDR) with fast frame rates, making it ideally suited for entertainment, notebook, telepresence and high-end security applications.

The sensor's new and improved OmniPixel3-HS pixel architecture offers better low-light sensitivity, signal to noise ratio (SNR) performance and a 5 dB improvement in dynamic range compared to the previous generation. The OV9714's 12-bit RGB RAW output capability

provides optimized HDR, while the embedded sequential line- or frame-based HDR features allow higher dynamic range for high-contrast scenes often encountered indoors.

The OV9714's fast frame rate minimizes latency delay, resulting in quick response time for interactive gaming and real-time communication applications. Additionally, the sensor offers frame synchronization functionality for use in 3D (stereo) camera systems.

The sensor comes with a standard 2-lane MIPI interface and fits into an 8 x 6 x 4.5 mm module size.

Find out more at www.ovt.com.

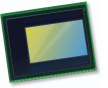
Applications

- PC Multimedia
- Entertainment
- Tablets
- Cellular and Mobile Phones
- Security
- Games

Product Features

- automatic black level calibration (ABLC)
- support 2x2 binning
- programmable controls for frame rate, mirror and flip, cropping and windowing
- standard serial SCCB interface
- image quality controls: lens correction and defective pixel canceling
- two-lane MIPI/LVDS serial output interface
- supports output formats: 8/10/12-bit RAW RGB (MIPI/LVDS)
- embedded 256 bits one-time programmable (OTP) memory for part identification, etc.
- supports horizontal and vertical sub-sampling
- on-chip phase lock loop (PLL)
- supports images sizes: 1280x800, 640x400, 320x200, and 160x100
- programmable I/O drive capability
- fast mode switching
- support alternate frame HDR/line HDR

OV9714



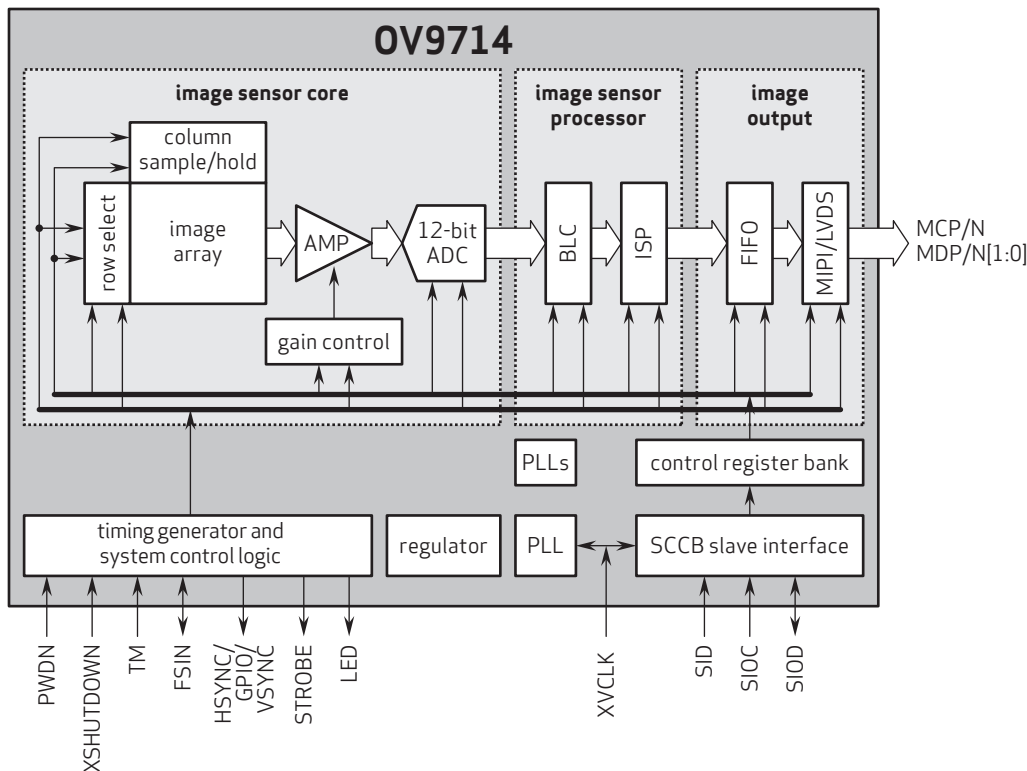
Ordering Information

- OV09714-A49A
(color, lead-free, 49-pin CSP3)

Product Specifications

- active array size: 1296 x 812
- max S/N ratio: 39 dB
- power supply:
 - core: 1.5 VDC \pm 5%
 - analog: 2.6 - 3.0V
 - I/O: 1.7 - 3.0V
- dynamic range: 73 dB @ 8x gain
- power requirements:
 - active: 95 mA
 - standby: 30 μ A
 - xshutdown: 5 μ A
- maximum image transfer rate:
 - 1280x800: 60 fps
 - 640x400: 120 fps
 - 320x200: 240 fps
- temperature range:
 - operating: -30°C to 85°C junction temperature
 - stable image: 0°C to 50°C junction temperature
- sensitivity: 3300 mV/lux-sec
- scan mode: progressive
- output formats: 12-bit RGB RAW
- maximum exposure interval: 800 x t_{row}
- lens size: 1/4"
- pixel size: 3.0 μ m x 3.0 μ m
- lens chief ray angle: 28.7° non-linear
- dark current: 2.3 mV/s @ 50°C junction temperature
- input clock frequency: 6 - 27 MHz
- image area: 3936 μ m x 2460 μ m
- package dimensions: 6110 μ m x 4930 μ m

Functional Block Diagram



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