

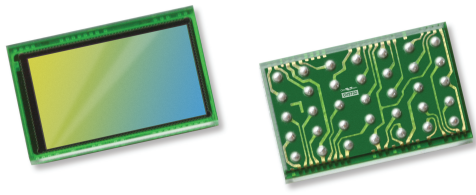
KLT-USB1A-OV9732 V1.0

OmniVision OV9732 USB インターフェース 固定焦点 1MP カメラモジュール



カメラモジュール番号	KLT-USB1A-OV9732 V1.0	
イメージセンサー	OV9732	Output Format: MJPG, YVY2
EFL	3.37 mm	30 FPS 1280 x 720 (Full HD)
F.NO	2.8	30 FPS 640 x 480 (0.3MP VGA)
ピクセル	1280 x 720	30 FPS 176 x 144 (0.02MP)
視野角	67.4°	Supporting OS
レンズタイプ	1/4 インチ	Windows 7, 8.1, 10, Vista
レンズ寸法	8.50 x 8.50 x 4.87 mm	Windows XP SP2 under UVC
モジュールサイズ	30.50 x 28.50 mm	Linux Kernel V2.6.2.1 or later
モジュールのタイプ	固定焦点	MAC OS 10.4 or later
インターフェース	USB 2.0	Operating Voltage: 5V +/- 5%
IMTレンズモデル	IMT-1A6E001-6	Compliant with UVC Version 1.0





OV9732 720p HD product brief



Power-Efficient and Compact HD CameraChip™ Sensor for Battery-Powered Smart-Home and Security Applications



available in
a lead-free
package

OmniVision's OV9732 is a low-power and ultra-compact CameraChip™ sensor that brings 720p high definition (HD) video to mainstream security systems and wireless battery-powered smart-home cameras. Compared to the previous generation OV9712, the OV9732 is 35 percent smaller and delivers dramatically improved pixel performance.

The OV9732 CameraChip sensor utilizes OmniPixel3-HS™ high sensitivity 3.0 μm pixel technology to bring industry-leading scene reproduction to a wide range of security and lifestyle camera

applications that operate in extremely high- and low-light conditions. The sensor's narrow 9-degree chief ray angle (CRA) supports consumer-grade optical lens systems and reduces image artifacts for enhanced performance.

When operating in low-power mode, the 1/4-inch OV9732 requires just 99 mW to capture 720p HD video at 30 frames per second.

Find out more at www.ovt.com.



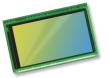
Applications

- IP Cameras
- Life Style Cameras
- Surveillance
- Motion Cameras

Product Features

- support for image sizes: full size (1280x720), VGA (640x480), 2x2 RGB binning (640x360)
- support for output formats: 10-bit RAW output with 1-lane MIPI and DVP
- on-chip phase lock loop (PLL)
- programmable controls for frame rate, mirror and flip, gain/exposure, and windowing
- support for horizontal and vertical sub-sampling
- low power mode (LPM) function
- capable of maintaining register values at software power down
- standard SCCB interface
- GPIO tri-state configurability and programmable polarity
- FSIN
- image quality control: defect pixel correction (DPC) and automatic black level calibration (ABLC)

OV9732



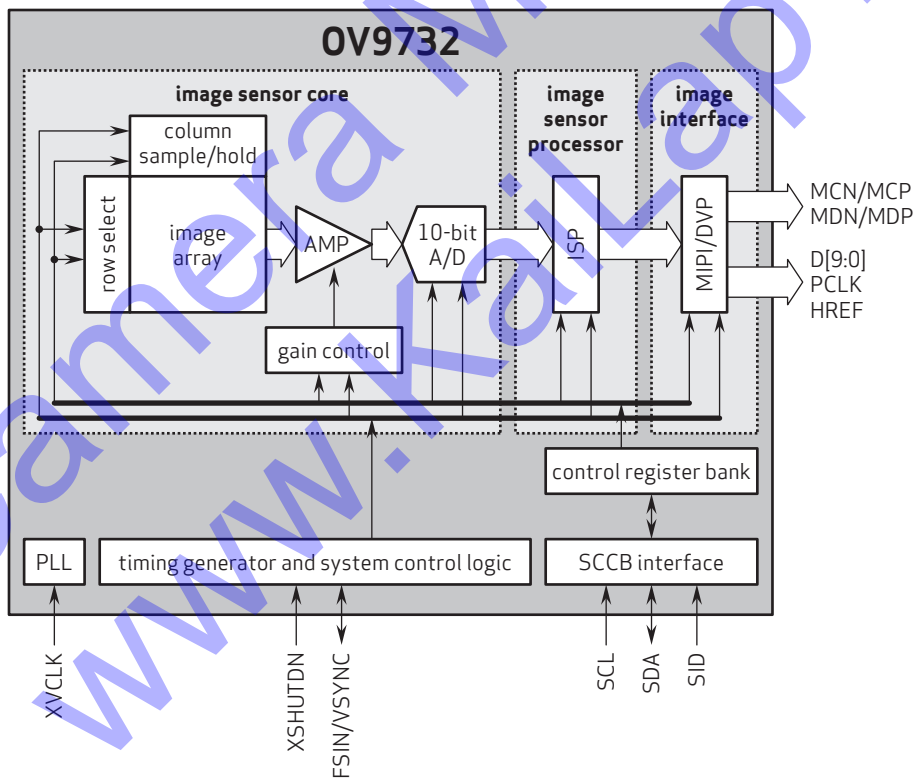
Ordering Information

- OV09732-H35A (color, lead-free, 35-pin CSP5)

Product Specifications

- active array size: 1280 x 720
- power supply:
 - core: 1.7 - 1.9V (1.8V normal)
 - analog: 2.7 - 2.9V (2.8V normal)
 - I/O: 1.7 - 1.9V (1.8V normal)
- power requirements:
 - active: 99 mW
 - standby: 36 μ W
- temperature range:
 - operating: -30°C to +70°C junction temperature
 - stable image: 0°C to +50°C junction temperature
- output formats: 10-bit RAW RGB
- lens size: 1/4"
- lens chief ray angle: 9°
- input clock frequency: 6 - 27 MHz
- maximum image transfer rate: 30 fps
- sensitivity: 2.066 V/lux-sec
- scan mode: progressive
- shutter: rolling shutter
- max S/N ratio: 39 dB
- dynamic range: 72 dB @ 8x gain
- maximum exposure interval: 798 x t_{row}
- pixel size: 3 μ m x 3 μ m
- dark current: 5 mV/sec @ 60°C junction temperature
- image area: 3888 μ m x 2208 μ m
- package dimensions: 4704 μ m x 2994 μ m

Functional Block Diagram



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