

CMOS CAMERA MODULES



your BEST camera module partner

KLT-IRSW-OV9732 V2.0

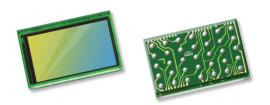
OmniVision OV9732 with IR Switch DVP Parallel Interface Fixed Focus 1MP M12 **Camera Module**



Camera Module No.	KLT-IRSW-OV9732 V2.0	
Image Sensor	OV9732	IR SWITCH
EFL	2.50 mm	Input Voltage: 3.5V ~ 12V
F.NO	2.1	Operating Current: 88 ~ 300 mA
Pixel	1280 x 720	Red Line: Positive
View Angle	120°	Black Line: Negative
Lens Type	1/4 inch	
Lens Dimensions	14.00 x 14.00 x18.61 mm	Operation:
Module Size	59.36 x 30.00 mm	ON: IR Active (Day Time)
Module Type	Fixed Focus	OFF: IR Disable (Night Time)
Interface	DVP Parallel	



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0V9732 720p HD product brief





available in a lead-free package

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

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 lowlight 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
- image quality control: defect pixel correction (DPC) and automatic black level calibration (ABLC)



■ 0V09732-H35A (color, lead-free, 35-pin CSP5)

Product Specifications

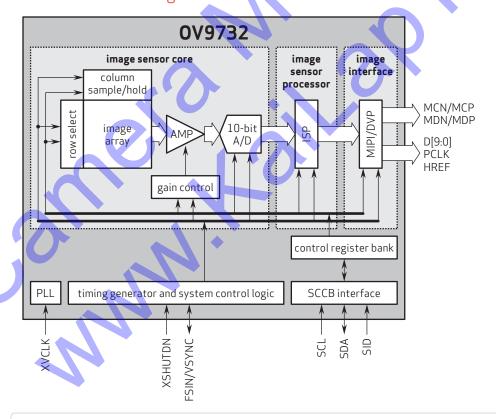
- active array size: 1280 x 720

- 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 µW
- 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 µm x 3 µm
- dark current: 5 mV/sec @ 60°C junction temperature
- image area: 3888 µm x 2208 µm
- package dimensions: 4704 μm x 2994 μm

Functional Block Diagram



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