



OV9732

720p product brief

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 OmniPixel®3-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.



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

Applications

- IP cameras
- life style cameras
- surveillance
- motion cameras

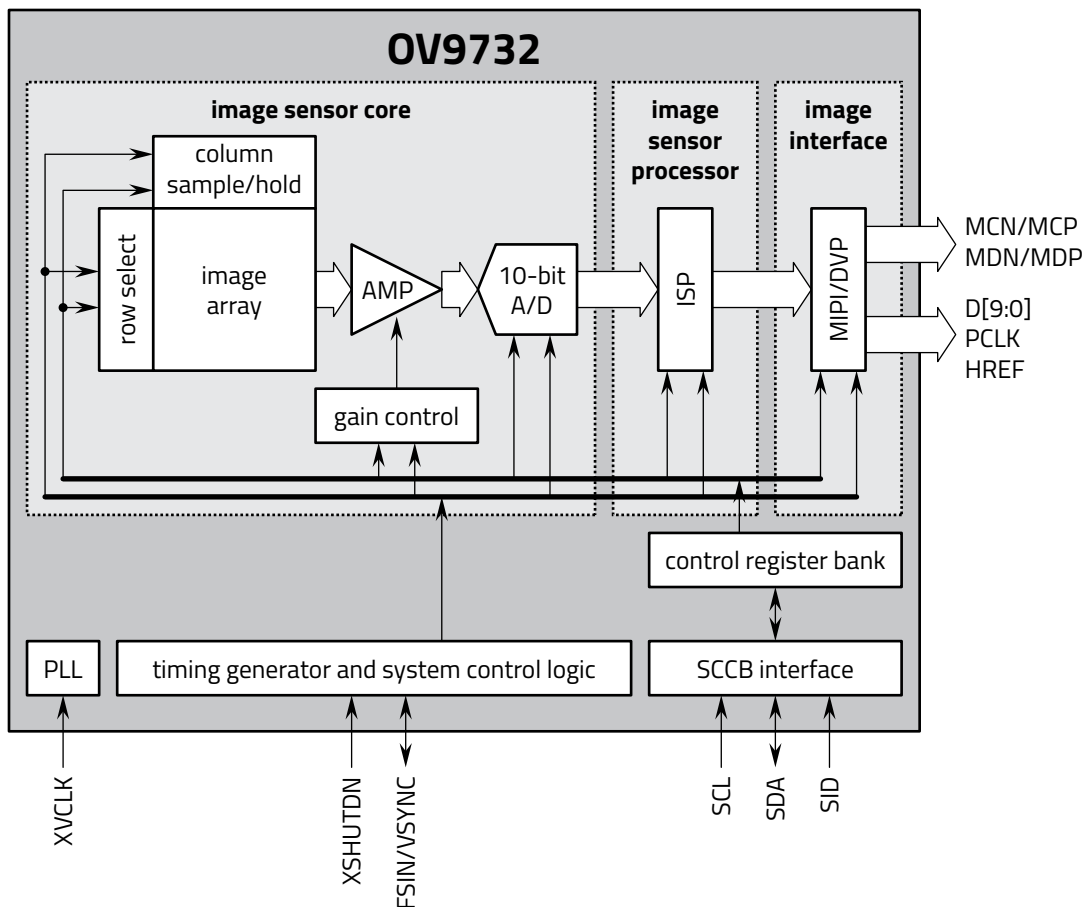
Technical Specifications

- active array size:** 1280 x 720
- maximum image transfer rate:** 30 fps
- power supply:**
 - analog: 2.7V ~ 2.9V (2.8V normal)
 - core: 1.7V ~ 1.9V (1.8V normal)
 - I/O: 1.7V ~ 1.9V (1.8V normal)
- power requirements:**
 - active: 99 mW
 - standby: 36 μ W
- output formats:** 10-bit RAW RGB
- temperature range:**
 - operating: -40°C to +85°C junction temperature
 - stable image: 0°C to +50°C junction temperature
- lens size:** 1/4"
- lens chief ray angle:** 9°
- scan mode:** progressive
- pixel size:** 3 μ m x 3 μ m
- image area:** 3888 μ m x 2208 μ m

Product Features

- support for image sizes:
 - full size (1280 x 720)
 - VGA (640 x 480)
 - 2x2 RGB binning (640 x 360)
- 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
 - 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)
 - automatic black level calibration (ABLC)

Functional Block Diagram



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