

OMNIVISION OV2732 Low-Power 1080p High Definition PureCel Sensor for Security Applications Owner's Manual

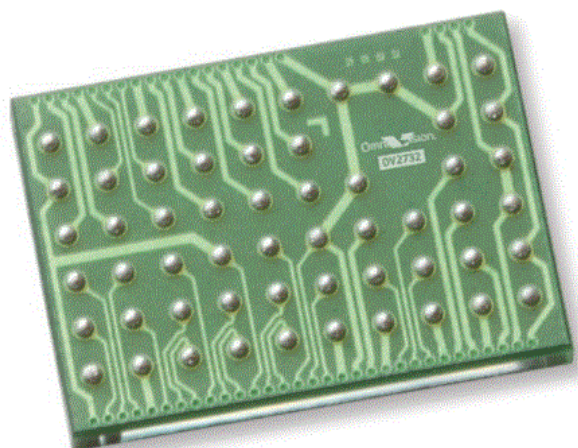
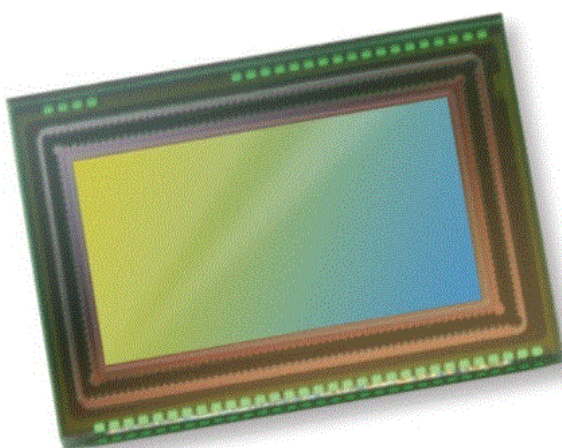
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OMNIVISION OV2732 Low-Power 1080p High Definition PureCel Sensor for Security Applications



Product Information

The OV2732 is a high-resolution image sensor core designed for various applications. It features a 1080p resolution and offers a range of technical specifications and product features.

To find more detailed information about the OV2732, please visit www.ovt.com.

Ordering Information

Please refer to the official product documentation or contact the manufacturer for specific ordering details.

Applications

The OV2732 image sensor core can be used in various applications where high-resolution imaging is required.

Technical Specifications

- Resolution: 1080p
- Image Sensor Core: Row Select ISP FIFO
- Interfaces: MIPI/DVP
- Image Array: Image Sensor Processor
- ADC: 12-bit
- Output Interface: Image Output Interface
- Control Register Bank: MCP/N MDP/N[1:0] D[11:0]
- PLLs: PLL Timing Generator and System Control Logic
- SCCB Slave Interface: XVCLK XSHUTDOWN XSHUTDOWN2 TM FSIN VSYNC PCLK HREF GPIO PWRDNB STROBE SID SCL SDA
- Version: 1.2 (July 2023)

Product Features

The OV2732 offers the following features:

- Image sensor core with column sample/hold
- Image array with gain control
- 12-bit ADC for accurate image processing

Functional Block Diagram

A visual representation of the functional blocks within the OV2732 image sensor core can be found in the official product documentation.

Contact Information

If you have any further questions or need assistance, you can contact OmniVision Technologies, Inc. at the following:

- Address: 4275 Burton Drive, Santa Clara, CA 95054, USA
- Phone: +1 408 567 3000
- Fax: +1 408 567 3001

- Website: www.ovt.com

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OV2732

1080p product brief

Low-Power 1080p High Definition PureCel® Sensor for Security Applications

OMNIVISION's OV2732 is a compact and power-efficient PureCel® image sensor designed for IoT-based residential and commercial monitoring systems. The OV2732 captures quality images and videos with staggered high dynamic range (HDR), ensuring excellent scene reproduction in all lighting environments. The sensor features frame sync for use in multi-camera or 360-degree camera systems and supports ultra-low power mode (ULPM) and an ambient light sensor (ALS), making it particularly well-suited for battery- powered security applications.

Built on OMNIVISION's PureCel® technology, the 1/4-inch OV2732 captures 1080p high definition (HD) video at 60 frames per second (fps), 720p HD video at 90 fps, and VGA resolution video at 120 fps. The OV2732 delivers crisp images and video, even in challenging low-light conditions.

Find out more at www.ovt.com.

Applications

- Internet of Things (IoT)
- high-end video conferencing
- security
- lifestyle cameras
- home monitoring

Technical Specifications

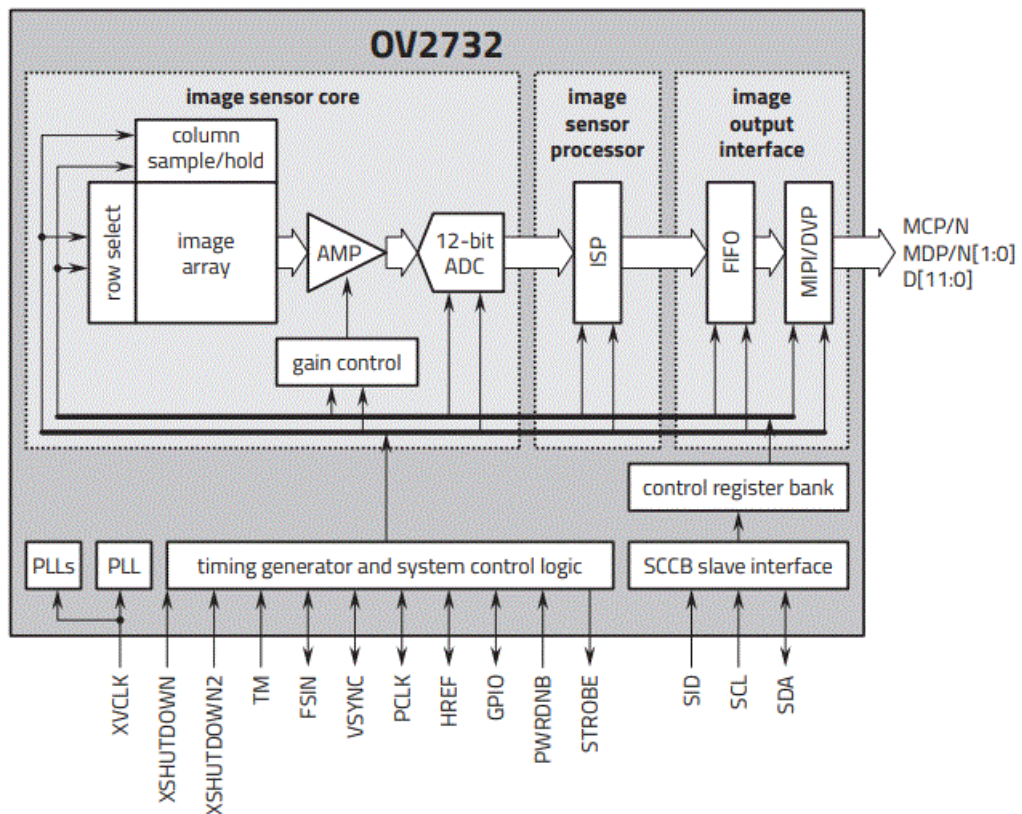
- active array size: 1920 x 1080
- maximum image transfer rate:
 - 1080p: 60 fps
 - 720p: 90 fps
 - VGA: 120 fps
 - QVGA: 240 fps
- power supply:
 - core: 1.2V
 - analog: 2.8V
 - I/O: 1.8V
- power requirements:
 - active: 110 mW
- output interfaces: two-lane MIPI / DVP parallel
- temperature range:
 - operating: -40°C to +85°C junction temperature

- stable image: 0°C to +60°C junction temperature
- output formats: 10/12-bit RAW RGB
- lens size: 1/4"
- lens chief ray angle: 12° linear
- scan mode: progressive
- shutter: rolling shutter
- pixel size: 2 μm x 2 μm
- 3868 μm x 2190 μm

Product Features

- programmable controls:
 - gain
 - exposure
 - frame rate
 - image size
 - horizontal mirror
 - vertical flip
 - cropping
 - windowing
- automatic image control functions:
 - black level calibration (BLC)
- serial camera control bus (SCCB)
- defective pixel correction (DPC)
- digital video port (DVP) parallel output interface
- support for two lane MIPI interface (up to 800 Mbps)
- support for image sizes:
 - 1080p @ 60 fps
 - 720p @ 90 fps
 - VGA @ 120 fps
 - QVGA @ 240 fps, and more
- support for light sensing mode (LSM)
- support for staggered 2 frame HDR
- support for black sun cancellation
- on-chip phase lock loop (PLL)

Functional Block Diagram



Ordering Information


- OV02732-H46A-1E (color, lead-free) 46- pin CSP

4275 Burton Drive Santa Clara, CA 95054 USA

Tel: + 1 408 567 3000 Fax: + 1 408 567 3001 www.ovt.com

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Documents / Resources

 <p>OV2732 1080p product brief Low-Power 1080p High Definition PureCel Sensor for Security Applications</p>	<p>OMNIVISION OV2732 Low-Power 1080p High Definition PureCel Sensor for Security Applications [pdf] Owner's Manual</p> <p>OV2732, OV2732 Low-Power 1080p High Definition PureCel Sensor for Security Applications, Low-Power 1080p High Definition PureCel Sensor for Security Applications, OV2732 Low-Power 1080p High Definition PureCel Sensor, Low-Power 1080p High Definition PureCel Sensor, 1080p High Definition PureCel Sensor, High Definition PureCel Sensor, PureCel Sensor, Sensor</p>
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