



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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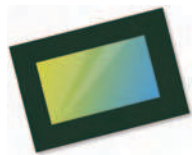
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# OV2736 1080p product brief



## Low-Power, Compact RGB-Ir Image Sensor for Consumer Applications



available in  
a lead-free  
package

The OV2736 is a 1/4-inch PureCel® image sensor that uses OmniVision's industry-leading RGB-Ir technology to enable high-end image quality, low power consumption and advanced functionality. These capabilities make the OV2736 suitable for a wide range of battery-powered camera applications, including home security and monitoring, high-end video conferencing, and action or lifestyle cameras.

Using a 4x4 RGB-Ir pixel pattern, the OV2736 eliminates the need for two-camera solutions for devices that require both RGB and infrared imaging.

Using this technology, the sensor delivers unprecedented performance in near-total darkness, capturing high-quality 1080p full high definition (HD) video at 60 frames per second (fps) with high dynamic range (HDR), or 720p HD video at 90 fps.

Rather than a traditional mechanical infrared filter, the OV2736 utilizes dual-band color filters to deliver superior image quality in near-total darkness. The sensor's small optical format and minimal 110 mW power consumption ensure that it is easily integrated into mainstream industrial designs.

Find out more at [www.ovt.com](http://www.ovt.com).



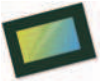
## Applications

- Internet of Things (IoT)
- High-end Video Conferencing
- Security
- Lifestyle Camera
- Home Monitoring

## Product Features

- 4x4 RGB-Ir pattern
- 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)
- 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
- support for light sensing mode (LSM)
- support for staggered 2 frame HDR
- support for black sun cancellation
- on-chip phase lock loop (PLL)

# OV2736



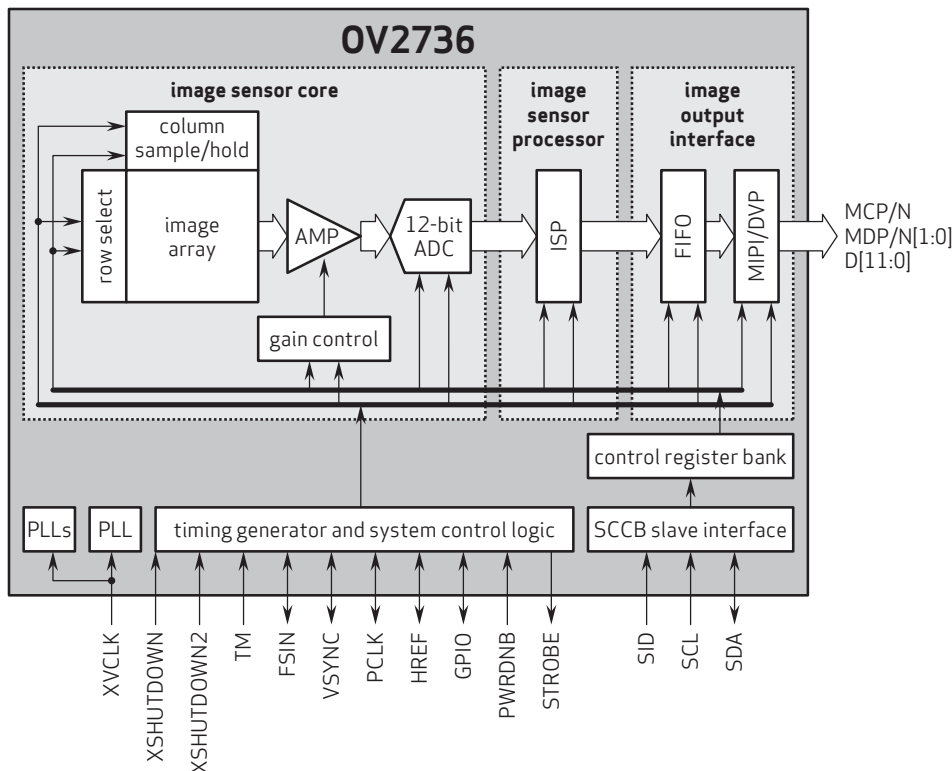
## Ordering Information

- OV02736-H46A-1B (RGB-Ir, lead-free) 46-pin CSP

## Product Specifications

- active array size: 1920 x 1080
- power supply:
  - core: 1.2V
  - analog: 2.8V
  - I/O: 1.8V
- power requirements:
  - active: 110 mW
- temperature range:
  - operating: -40°C to +85°C junction temperature
  - stable image: 0°C to +60°C junction temperature
- output interfaces: two-lane MIPI / DVP parallel
- output formats: 10/12-bit RAW RGB-Ir
- lens size: 1/4"
- lens chief ray angle: 12° linear
- input clock frequency: 6 - 27 MHz
- scan mode: progressive
- maximum image transfer rate:
  - 1080p: 60 fps
  - 720p: 90 fps
- sensitivity: 12.5 Ke-/Lux-sec
- shutter: rolling shutter
- max S/N ratio: 38.2 dB
- dynamic range: 74.5 dB @ 16x gain
- maximum exposure interval: 1184 x t<sub>row</sub>
- pixel size: 2 μm x 2 μm
- image area: 3868 μm x 2190 μm
- package dimensions: 5134 μm x 3640 μm

## Functional Block Diagram



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