



# OV2736

## 1080p product brief



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

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 cameras
- home monitoring

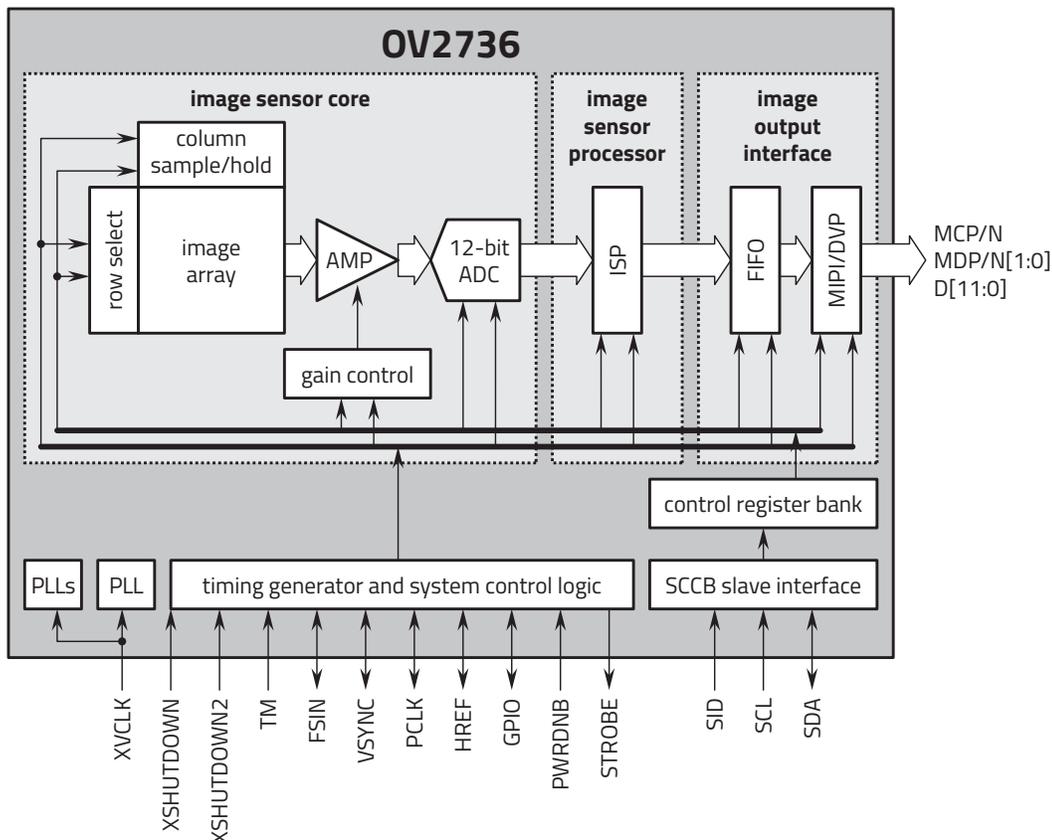
## Product Features

- 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)

## Technical Specifications

- active array size:** 1920 x 1080
- maximum image transfer rate:**
  - 1080p: 60 fps
  - 720p: 90 fps
- 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
- scan mode:** progressive
- shutter:** rolling shutter
- pixel size:** 2 μm x 2 μm
- image area:** 3868 μm x 2190 μm

## Functional Block Diagram



Version 1.4, July 2023