



# CMOS CAMERA MODULES

your BEST camera module partner

## KLT-USB1A-OS05A10 V1.0

OmniVision OS05A10 USB 接口 固定焦距 500万像素 M12 摄像头模组



摄像头模组型号	KLT-USB1A-OS05A10 V1.0	
图像感光芯片	OS05A10	输出格式: MJPG, YVY2
焦距	3.07 mm	25 FPS 2592 x 1944 (Full Frame)
光圈	1.8	25 FPS 1920 x 1080 (Full HD)
像素	2688 x 1944	25 FPS 1280 x 720 (HD 720P)
可视角度	164°	支持的操作系统
镜头类型	1/2.7 英寸	Windows 7, 8.1, 10, Vista
镜头尺寸	13.00 x 13.00 x 18.07 mm	Windows XP SP2 under UVC
模组尺寸	30.50 x 28.50 mm	Linux Kernel V2.6.2.1 or later
模组类型	固定焦距	MAC OS 10.4 or later
接口	USB 2.0	工作电压: 5V +/- 5%
IMT镜头型号	IMT-2B12E001-6	符合UVC 1.0版

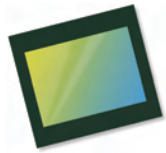
配对USB线型号: KLT-USB1A-Cable



USB延长线。分开售卖。.

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# OS05A10 5-megapixel product brief



## Versatile 5-Megapixel PureCel® Sensor with High Dynamic Range for a Wide Range of Commercial Security and Consumer Applications



available in a lead-free package

OmniVision's low-power OS05A10 is a 5-megapixel image sensor that brings crisp 1080p high definition, 2K, and 5-megapixel video to a wide range of commercial security and consumer applications, including 360-degree full-view cameras. Built on OmniVision's advanced PureCel® pixel architecture, the OS05A10 utilizes backside illumination (BSI) technology to deliver enhanced low-light sensitivity and wide field of view (FOV).

Available in the popular 1/2.7-inch optical format, the OS05A10 enables video applications in widely used 4:3 and 16:9 aspect ratios. The sensor can capture 1080p full high definition slow-motion video at 120 frames per second (fps) and 2688 x 1944 resolution at 60 fps.

Additionally, the OS05A10 features a 12-degree chief ray angle (CRA) and a dual-exposure staggered high dynamic range (HDR) mode to enable excellent scene reproduction in difficult high-contrast lighting conditions.

The OS05A10 is compatible with MIPI and LVDS interfaces and comes in a chip scale package (CSP) of 6.6 mm x 5.9 mm.

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



## Applications

- Security Cameras
- High Resolution Consumer Cameras
- Action Cameras

## Product Features

- 2  $\mu\text{m}$  x 2  $\mu\text{m}$  pixel
- optical size of 1/2.7"
- programmable controls for:
  - frame rate
  - mirror and flip
  - cropping
  - windowing
- supports output formats:
  - 10/12-bit RAW RGB
- supports images sizes:
  - 5MP (2688x1944)
  - 1080p (1920x1080)
  - 720p (1280x720)
- supports 2x2 binning
- standard serial SCCB interface
- 12/10-bit ADC
- up to 4-lane MIPI/LVDS serial output interface (supports maximum speed up to 1500 Mbps/lane)
- 2-exposure staggered HDR support
- programmable I/O drive capability
- light sensing mode (LSM)
- PLL with SCC support
- support for frame sync

# OS05A10



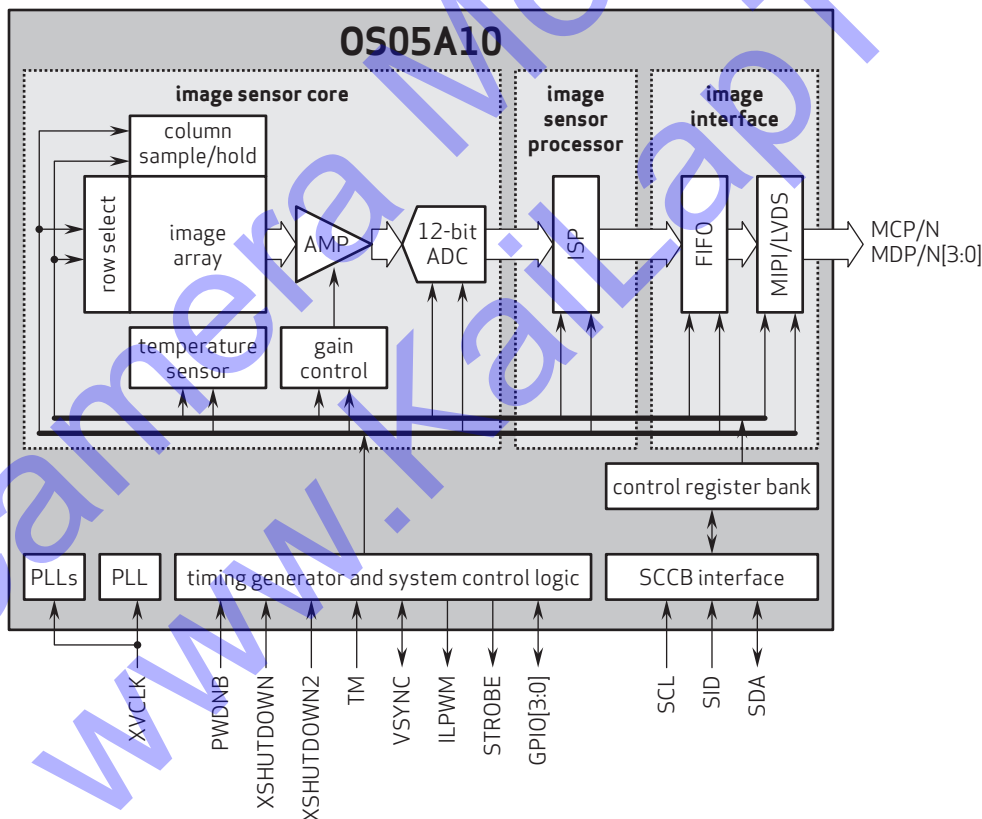
## Ordering Information

- OS05A10-H79A-Z  
(color, lead-free, 79-pin CSP)

## Product Specifications

- active array size: 2688 x 1944
- lens chief ray angle: 11° linear
- power supply:
  - core: 1.2V
  - analog: 2.8V
  - I/O: 1.8V
- power requirements:
  - active: 221 mW
  - standby: 210  $\mu\text{A}$
  - XSHUTDOWN: 0.6  $\mu\text{A}$
- temperature range:
  - operating: -30°C to +85°C junction temperature
  - stable image: 0°C to +60°C junction temperature
- output formats: 10/12-bit RGB RAW
- lens size: 1/2.7"
- input clock frequency: 6 - 27 MHz
- scan mode: progressive
- maximum image transfer rate:
  - 2688x1944: 60 fps
  - 2688x1520: 60 fps
- maximum exposure interval: VTS - 8
- minimum exposure interval: 2  $t_{\text{row}}$
- pixel size: 2.0  $\mu\text{m}$  x 2.0  $\mu\text{m}$
- image area: 5434.56  $\mu\text{m}$  x 3948.05  $\mu\text{m}$
- package dimensions:
  - CSP: 6638.8  $\mu\text{m}$  x 5935  $\mu\text{m}$

## Functional Block Diagram



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