

## KLT-IRSW-OS05A10 V1.0

**OmniVision OS05A10 with IR Switch MIPI Interface Foco Fixo 5MP M12**  
**Módulo de Câmera**

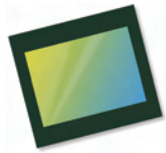


Módulo de câmara No.	KLT-IRSW-OS05A10 V1.0	
Sensor de imagem	OS05A10	IR SWITCH
EFL	1.95 mm	Input Voltage: 3.3V ~ 5.5V
F.NO	2.2	IR: 645nm +/- 15nm
Pixel	2688 x 1944	AR: 700nm ~ 1000 nm
Ângulo de visão	180°(D) 171.5°(H) 118°(V)	Operation (IR Day Time)
Tipo de lente	1/2.7 polegada	Red Line: Negative
Dimensões da lente	22.20 x 21.50 x 12.96 mm	Black Line: Positive
Tamanho do Módulo	50.00 x 30.00 mm	Operation (AR Night Time)
Tipo de Módulo	Foco Fixo	Red Line: Positive
Interface	MIPI	Black Line: Negative

### Acasalamento Parte conector No. WP7A-S024VA1



Conector de acoplamento na placa principal. Vendido separadamente.



# OS05A10 5-megapixel product brief



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



lead free  
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



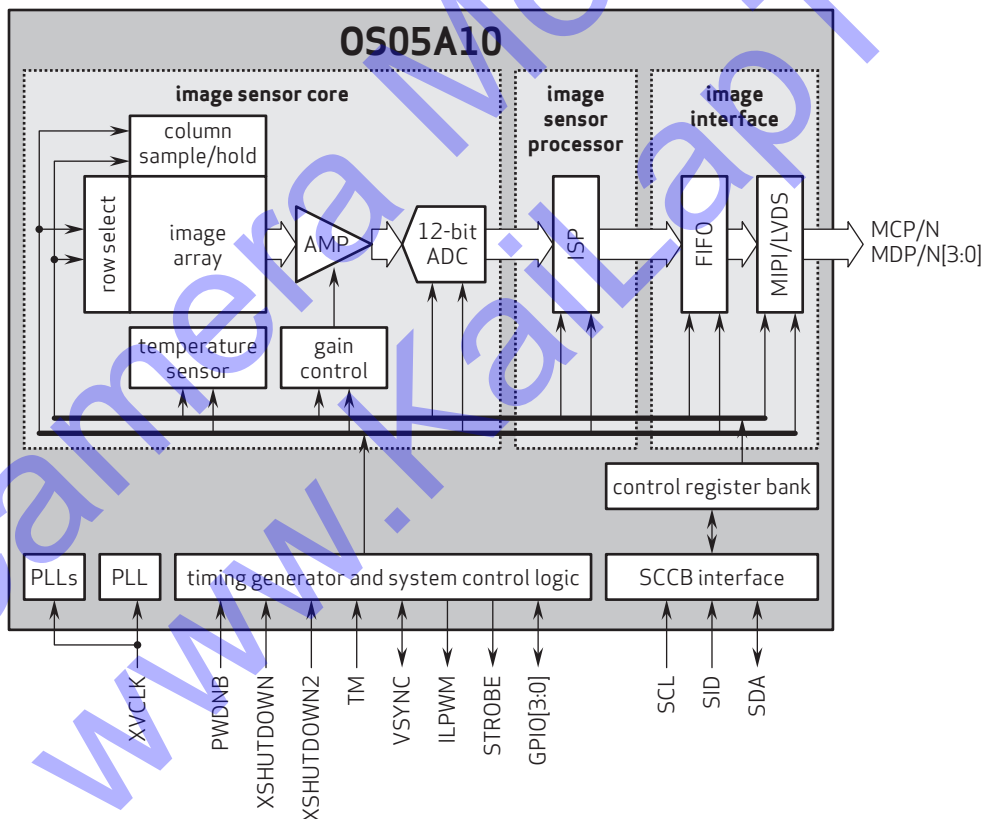
## Ordering Information

- 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



4275 Burton Drive  
Santa Clara, CA 95054  
USA

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

OmniVision reserves the right to make changes to their products or to discontinue any product or service without further notice. OmniVision, the OmniVision logo and OmniPixel are registered trademarks of OmniVision Technologies, Inc. OmniBSI-Z is a trademark of OmniVision Technologies, Inc. All other trademarks are the property of their respective owners.



OmniVision