

## KLT-USB1A-OV2710 V1.0

OmniVision OV2710 USB Интерфейс Фиксированный фокус 2MP M12  
Модуль камеры

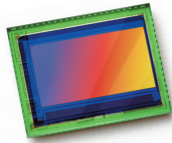
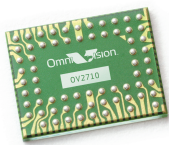


№ модуля камеры	KLT-USB1A-OV2710 V1.0	
Датчик изображений	OV2710	Output Format: MJPG, YVY2
EFL	3.0 mm	30 FPS 640 x 480 (VGA)
F.NO	2.4	30 FPS 1280 x 720 (HD 720P)
Пиксель	1920 x 1080	30 FPS 1920 x 1080 (Full HD)
Угол обзора	92°	Supporting OS
Тип линзы	1/2.7 дюйм	Windows 7, 8.1, 10, Vista
Размеры линз	13.70 x 13.70 x 17.30 mm	Windows XP SP2 under UVC
Размер модуля	30.50 x 25.00 mm	Linux Kernel V2.6.2.1 or later
Тип модуля	Фиксированный фокус	MAC OS 10.4 or later
Интерфейс	USB 2.0	Operating Voltage: 5V +/- 5%
Модель объектива IMT	IMT-4B12B002-6	Compliant with UVC Version 1.0

Соединительный USB-кабель Деталь No. KLT-USB1A-Cable



Удлинитель кабеля USB. Продано отдельно.



# OV2710-1E full HD (1080p) product brief



## OmniVision's True 1080p High Definition (HD) Video Image Sensor



available in  
a lead-free  
package

The OV2710-1E is a true full HD (1080p) CMOS image sensor designed specifically to deliver high-end HD video to digital video camcorders, notebooks, PC webcam, security and other mobile applications. The 1/2.7-inch OV2710-1E addresses the fast growing demand for affordable, HD-quality digital video solutions for video conferencing and recording.

The OV2710-1E is among the very first no-compromise full HD (1080p) sensors available on the market, meaning it offers HD video format with a display resolution of 1920 x 1080 pixels, operating at 30 frames per second. Built with OmniVision's proprietary 3  $\mu\text{m}$  OmniPixel3-HS™ high sensitivity pixel technology, the OV2710-1E delivers low-light sensitivity of 3700 mV/lux-sec, S/N ratio of 40 dB, and

a peak dynamic range of 69 dB, enabling cameras to operate in virtually every lighting condition from bright daylight to nearly complete darkness below 15 lux.

The OV2710-1E supports multiple platform architectures and controllers with both parallel and MIPI interfaces. By allowing system designers to leverage the same opto-electrical design across various products and multiple market segments, the OV2710-1E significantly reduces product development time. OmniVision's OmniPixel3-HS pixel technology has already been proven in high quality webcam/video applications and is now available in 1080p full HD in the OV2710-1E.

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



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## Applications

- Notebooks
- PC Webcams
- Camcorders
- Security
- Digital Still Cameras
- Telepresence
- Portable Media Players

## Product Features

- programmable controls: gain, exposure, frame rate, image size, horizontal mirror, vertical flip, cropping, windowing, and panning
- automatic image control functions:
  - automatic exposure (AEC)
  - automatic gain control (AGC)
  - automatic white balance (AWB)
  - automatic black level calibration (ABLC)
- serial camera control bus (SCCB)
- lens correction (LENC)
- defect pixel correction (DPC)
- support for digital video port (DVP) parallel output interface
- integrated auto focus filter
- support for one lane MIPI interface (up to 800 Mbps)
- support for 8-/10-bit RAW RGB output format
- support for image sizes:
  - 1080p at 30 fps
  - cropped 720p at 60 fps
  - VGA at 120 fps
- support for black sun cancellation
- embedded one-time programmable (OTP) memory
- on-chip phase lock loop (PLL)
- built-in 1.5V regulator for core

# OV2710-1E



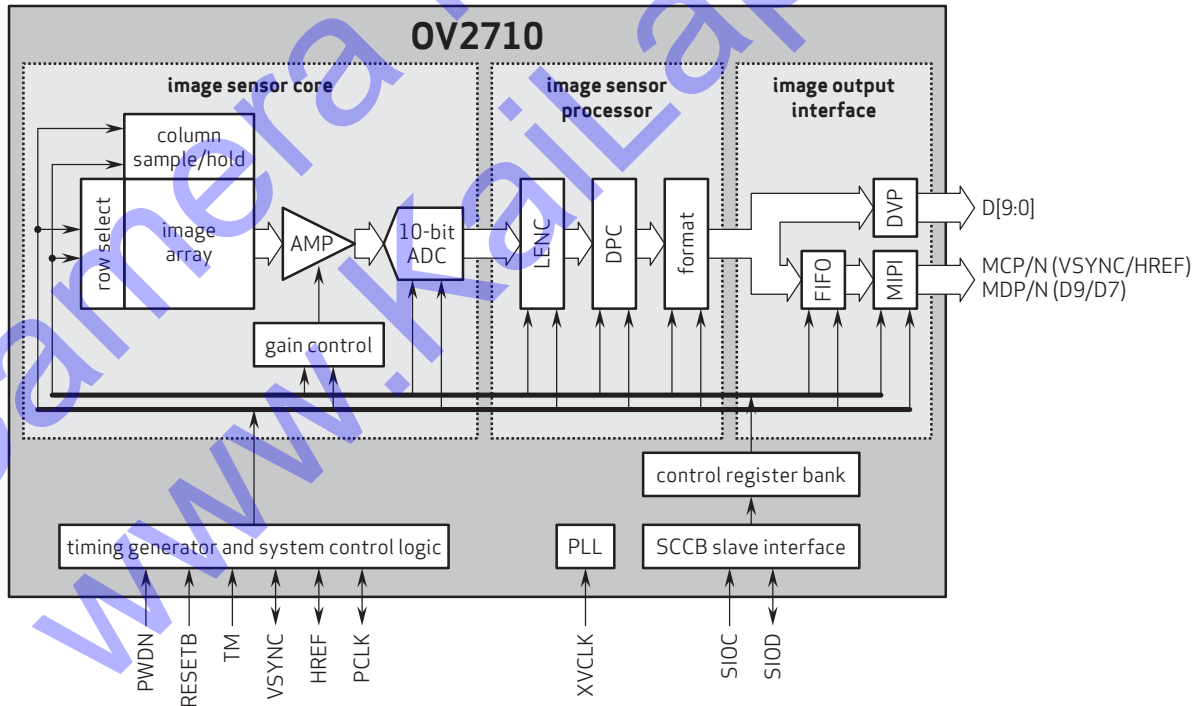
## Ordering Information

- OV02710-A68A-1E  
(color, lead-free, 68-pin CSP3)

## Product Specifications

- active array size: 1920 x 1080
- power supply:
  - analog: 3.0 - 3.6V (3.3V typical)
  - core: 1.425 - 1.575V (1.5V typical)
  - I/O: 1.7 - 3.6V (1.8V typical)
- power requirements:
  - active: 350 mW
  - power down: 70  $\mu$ A
- temperature range:
  - operating: -30°C to +85°C junction temperature
  - stable image: 0°C to +65°C junction temperature
- output interfaces: 10-bit parallel/one lane MIPI
- output formats: 10-bit RAW RGB
- lens size: 1/2.7"
- lens chief ray angle: 23.6°
- input clock frequency: 6 - 27 MHz
- scan mode: progressive
- maximum image transfer rate:
  - 1080p: 30 fps
  - cropped 720p: 60 fps
  - VGA: 120 fps
  - QVGA: 240 fps
- sensitivity: 3700 mV/lux-sec
- shutter: rolling
- max S/N ratio: 40 dB
- dynamic range: 69 dB @ 8x gain
- maximum exposure interval: 1096 tline
- pixel size: 3  $\mu$ m x 3  $\mu$ m
- dark current: 20 mV/sec @ 60°C junction temperature
- image area: 5856  $\mu$ m x 3276  $\mu$ m
- package dimensions: 7465  $\mu$ m x 5865  $\mu$ m

## Functional Block Diagram



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