JAL-KR6-OV2710 V3.0

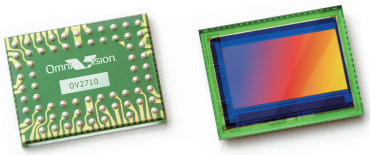
OmniVision OV2710 Parallela DVP Interfaccia Messa a fuoco fissa 2MP M12 Modulo telecamera

Modulo telecamera n.	JAL-KR6-OV2710 V3.0
Sensore d'immagine	OV2710
EFL	3.4 mm
F.NO	2.5
Pixel	1920 x 1080
Vista ad angolo	120°(D) 85°(H) 60°(V)
Tipo di lente	1/2.7 pollice
Dimensioni dell'obiettivo	13.70 x 13.70 x 22.52 mm
Dimensione del modulo	47.85 x 18.00 mm
Tipo di modulo	Messa a fuoco fissa
Interfaccia	Parallela DVP

Connettore di accoppiamento Codice. FH12-24S-0.5SH

Connettore di accoppiamento sulla scheda principale.Venduto separatamente.

www.KaiLapTech.com sales@KaiLapTech.com Tel: (852) 6908 1256 Fax: (852) 3017 6778



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

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

lead free

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 µm 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.

OV2710-1E

Applications

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

Ordering Information

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

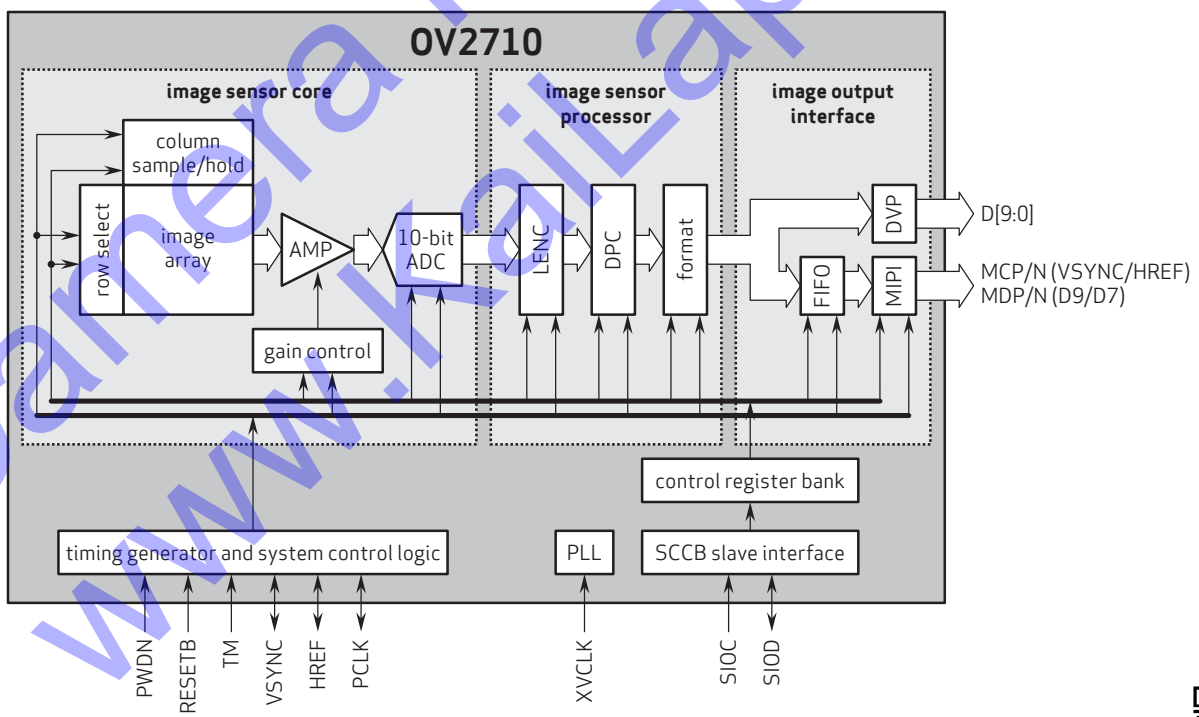
Product Features

- 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

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 µA
- **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 µm x 3 µm
- **dark current:** 20 mV/sec @ 60°C junction temperature
- **image area:** 5856 µm x 3276 µm
- **package dimensions:** 7465 µm x 5865 µm

Functional Block Diagram



4275 Burton Drive
Santa Clara, CA 95054
USA

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

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