JAL-KB8-2001B V3.0

OmniVision OV8825 MIPI Interface Auto-foco 8MP Módulo de Câmera

Módulo de câmara No.	JAL-KB8-2001B V3.0
Sensor de imagem	OV8825
EFL	3.37 mm
F.NO	2.8
Pixel	3264 x 2448
Ângulo de visão	70°
Tipo de lente	1/3.2 polegada
Dimensões da lente	8.5 x 8.5 x 5.6 mm
Tamanho do Módulo	18.69 x 9 mm
Tipo de Módulo	Auto-foco
Interface	MIPI

Acasalamento Parte conector No. 24-5804-024-000-829

Conector de acoplamento na placa principal. Vendido separadamente.

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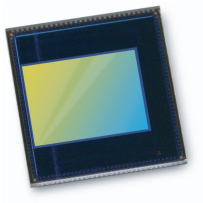


OV8825 8-megapixel product brief

High Performance 8-Megapixel Camera With Advanced OmniBSI+ Pixel Architecture for Superior Image Quality With Low-Cost Structure

lead free

available in a lead-free package

The 1/3.2-inch OV8825 is an 8-megapixel CameraChip™ sensor built on OmniVision's advanced OmniBSI+™ pixel architecture, providing many significant improvements over the previous OmniBSI™ generation, including a 60 percent increase in full-well capacity, a 10 percent increase in quantum efficiency and a 10 percent improvement in low-light sensitivity. OmniBSI+ pixel architecture enables the OV8825 to dramatically improve image and video capture in both bright and low-light conditions, making it a highly attractive solution for next generation for smartphones and tablets.

The OV8825 operates at 24 frames per second (fps) in full resolution, and in 1080p high-definition (HD) video mode at 30 fps or 720p at 60 fps. The sensor's high frame rate also helps eliminate image lag for shutter-less designs, and enables continuous shooting, minimized rolling shutter effect and real-time image capture with no lag between resolutions. A high-speed, 4-lane MIPI interface facilitates the required high data transfer rates necessary for capturing 10-bit 8-megapixel images and HD video.

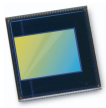
An integrated scaler offers electronic image stabilization and enables it to maintain full field-of-view (FOV) with improved signal-to-noise performance in 1080p high-definition (HD) video mode at 30 fps. The sensor's 2 x 2 binning functionality with a post-binning re-sampling filter function minimizes spatial artifacts and removes image artifacts around edges, delivering clean, crisp color images.

The OV8825 fits into the industry standard 8.5 x 8.5 mm module size and features certain image processing functions such as lens shading correction and defect pixel correction, as well as 256-bytes of embedded one-time programmable memory.

Find out more at www.ovt.com.

OmniVision

OV8825



Applications

- Mobile Phones
- Digital Still Cameras (DSC)
- Digital Video Camcorders (DVC)

Product Features

- OmniBSI+™ technology
- automatic black level calibration (ABLC)
- programmable controls for frame rate, mirror and flip, cropping, windowing, and scaling
- image quality controls: lens correction and defective pixel canceling
- support for output formats: 10-bit RAW RGB (MIPI)
- support for horizontal and vertical subsampling
- support for images sizes: 8 Mpixel, EIS1080p, 1080p, EIS720p, EISQ 1080p, Q1080p, EISVGA, VGA, QVGA, etc.
- support 2x2 binning
- standard serial SCCB interface
- MIPI serial output interface
- 256 bytes embedded one-time programmable (OTP) memory for part identification, etc.
- on-chip phase lock loop (PLL)
- programmable I/O drive capability
- built-in 1.5V regulator for core

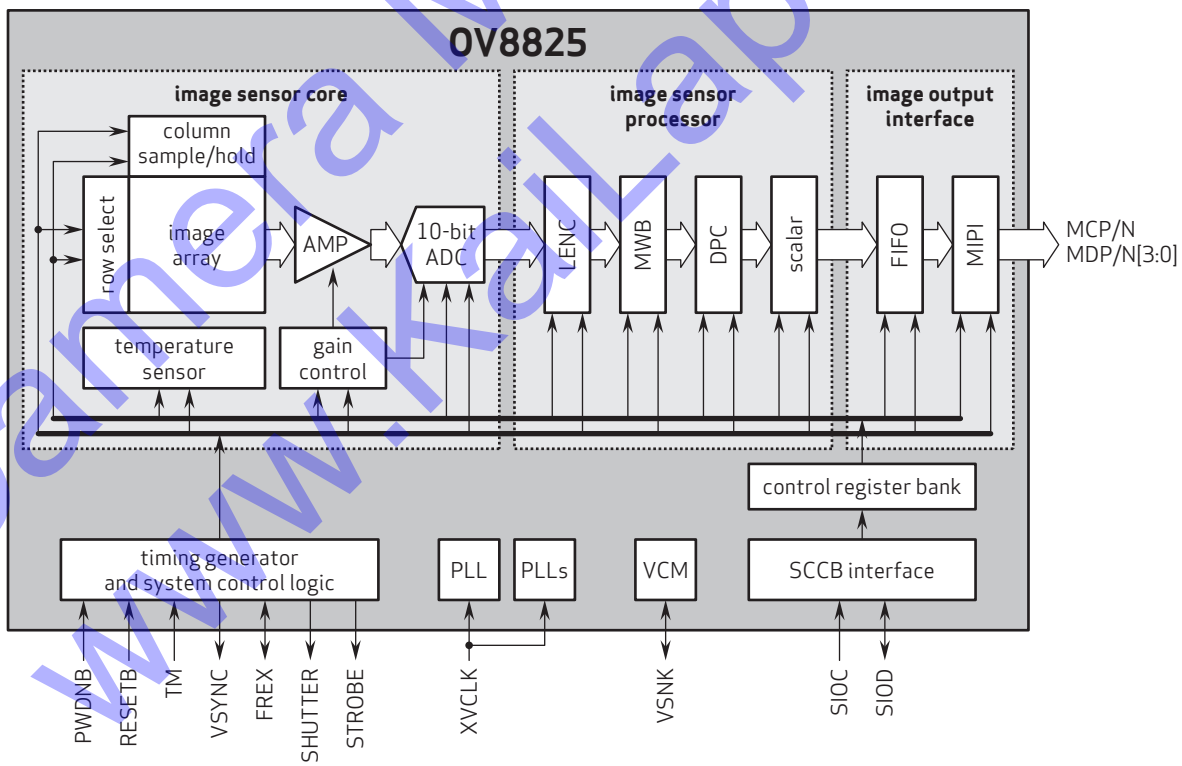
Ordering Information

- **OV08825-G04A**
  (color, chip probing, 200 µm backgrinding, reconstructed wafer)

Product Specifications

- **active array size:** 3296 x 2460
- **power supply:**
  - **core:** 1.5 VDC ±5%
    (internal regulator optional)
  - **analog:** 2.6 - 3.0V
  - **I/O:** 1.7 - 3.0V
- **power requirements:**
  - **active:** 160 mA (358 mW)
  - **standby:** 30 µA
- **temperature range:**
  - **operating:** -30°C to 70°C junction temperature
  - **stable image:** 0°C to 50°C junction temperature
- **output formats:** 10-bit RGB RAW
- **lens size:** 1/3.2"
- **lens chief ray angle:** 27° non-linear
- **input clock frequency:** 6 - 27 MHz
- **max S/N ratio:** 35.7 dB
- **dynamic range:** 70.45 dB @ 8x gain
- **maximum image transfer rate:**
  - **8MP:** 24 fps
  - **EIS1080p:** 30 fps
  - **EIS720p:** 60 fps
- **sensitivity:** 725 mV/lux-sec
- **scan mode:** progressive
- **maximum exposure interval:** 2480 x t_{ROW}
- **pixel size:** 1.4 µm x 1.4 µm
- **dark current:** 8 mV/s @ 50°C junction temperature
- **image area:** 4614 µm x 3444 µm
- **die dimensions:** 6350 µm x 6750 µm

Functional Block Diagram



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