

## JAL-KD3-OV8825 V4.0

**OmniVision OV8825 MIPI Interface Mise au point automatique  
8MP Module de caméra**

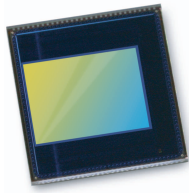


<b>Module de caméra No.</b>	<b>JAL-KD3-OV8825 V4.0</b>
<b>Capteur d'image</b>	OV8825
<b>EFL</b>	3.57 mm
<b>F.NO</b>	2.8
<b>Pixel</b>	3264 x 2448
<b>Angle de vue</b>	68°
<b>Type d'objectif</b>	1/3.2 pouce
<b>Dimensions de l'objectif</b>	8.5 x 8.5 x 5.9 mm
<b>Taille du module</b>	17.9 x 8.5 mm
<b>Type de module</b>	Mise au point automatique
<b>Interface</b>	MIPI

**Référence du connecteur d'accouplement. GB042-30S-H10**



Connecteur d'accouplement sur la carte principale. Vendu séparément.



# OV8825 8-megapixel product brief



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



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](http://www.ovt.com).

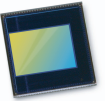
## Applications

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

## 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

# OV8825



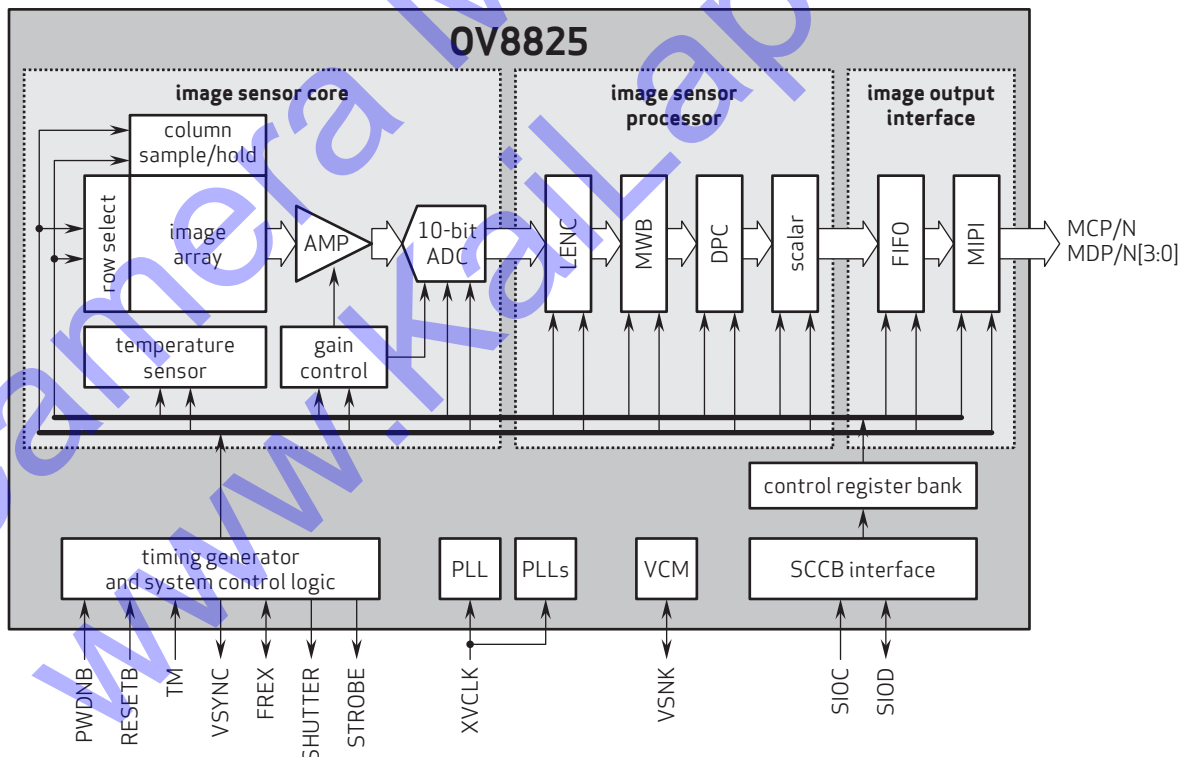
## Ordering Information

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

## Product Specifications

- active array size: 3296 x 2460
- max S/N ratio: 35.7 dB
- 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
- 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<sub>row</sub>
- 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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