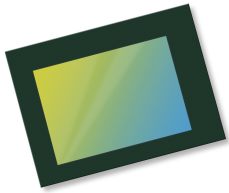


**KLT-N5K-OV8856 V1.0****OmniVision OV8856 MIPI Interface Mise au point fixe 8MP Module de caméra**

<b>Module de caméra No.</b>	<b>KLT-N5K-OV8856 V1.0</b>
<b>Capteur d'image</b>	OV8856
<b>EFL</b>	2.93 mm
<b>F.NO</b>	2.0
<b>Pixel</b>	3264 x 2448
<b>Angle de vue</b>	75°
<b>Type d'objectif</b>	1/4 pouce
<b>Dimensions de l'objectif</b>	6.5 x 6.5 x 4.62 mm
<b>Taille du module</b>	15.43 x 9.60 mm
<b>Type de module</b>	Mise au point fixe
<b>Interface</b>	MIPI

**Référence du connecteur d'accouplement. OK-10F030-04**

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



# OV8856 8MP product brief



## High Performance PureCel® Sensor Brings 8-Megapixel Selfies to Mainstream Smartphones



available in a lead-free package

OmniVision's OV8856 is a new 1/4-inch 8 megapixel PureCel sensor designed for front- and rear-facing camera applications in mainstream mobile devices. Built on advanced 1.12-micron pixel architecture, the extremely compact OV8856 offers industry-leading image quality and improved performance when compared with previous-generation 8-megapixel image sensors.

The 1/4-inch OV8856 leverages OmniVision's PureCel pixel architecture to capture full-resolution 8-megapixel images and video at 30 frames per second (fps), and 1080p high-definition (HD) video at 60 fps. The power-efficient OV8856 sensor also supports

interlaced high dynamic range (iHDR) for clear images and video in high- and low-light conditions. Using a high-speed four-lane MIPI interface, the OV8856 can output full-resolution, 8-megapixel 30 fps video over two MIPI lanes without requiring any data compression.

The OV8856 is one of the smallest 8-megapixel sensors on the market, and is approximately 15 percent smaller than OmniVision's previous-generation OV8858 image sensor. The OV8856 can fit into a 6.5 mm x 6.5 mm fixed-focus module with a z-height of approximately 4 mm.

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



## Applications

- Cellular Phones
- Tablets
- PC Multimedia

## Product Features

- 1.12  $\mu\text{m}$  x 1.12  $\mu\text{m}$  pixel
- optical size of 1/4"
- 32.9° CRA for < 5mm Z-height
- programmable controls for frame rate, mirror and flip, cropping, and windowing
- supports images sizes: 8MP (4:3, 3264x2448), 8MP (16:9, 3264x1836), EIS 1080p (2112x1188), 1080p (1920x1080), EIS 720p (1408x792), and more
- 8MP at 30 fps (720Mbps/4-lane or 1.44Gbps/2-lane)
- two on-chip phase lock loops (PLLs)
- two-wire serial bus control (SCCB)
- 8k bits of embedded one-time programmable (OTP) memory
- image quality control: defect pixel correction, automatic black level calibration, lens shading correction and alternate row HDR

# OV8856



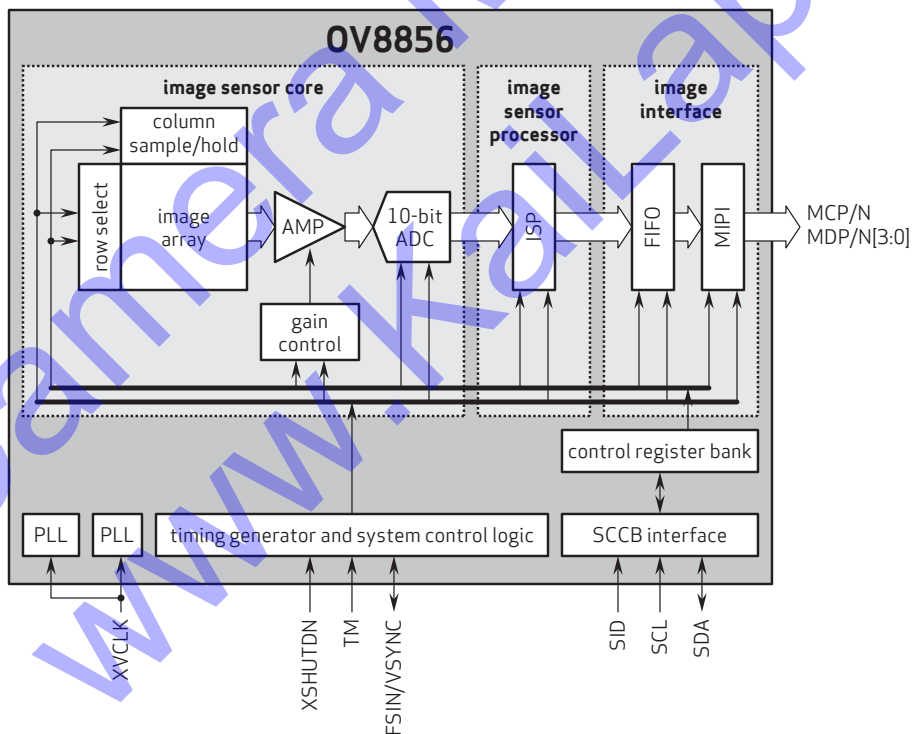
## Ordering Information

- OV8856-GA4A**  
(color, chip probing, 200  $\mu\text{m}$  backgrinding, reconstructed wafer with good die)

## Product Specifications

- active array size:** 3264 x 2448
- power supply:**
  - core: 1.14 - 1.26V (1.2V nominal)
  - analog: 2.6 - 3.0V (2.8V nominal)
  - I/O: 1.7 - 1.9V (1.8V)
- power requirements:**
  - active: 150 mW
  - standby: 0.8  $\mu\text{W}$
  - XSHUTDN: 1  $\mu\text{W}$
- temperature range:**
  - operating: -30°C to +85°C junction temperature
  - stable image: 0°C to +60°C junction temperature
- output interfaces:** up to 4-lane MIPI serial output
- output formats:** 10-bit RGB RAW
- lens size:** 1/4"
- lens chief ray angle:** 32.9° non-linear
- input clock frequency:** 6 - 27 MHz
- max S/N ratio:** 36.5 dB
- dynamic range:** 70 dB @ 8x gain
- maximum image transfer rate:**
  - 3264x2448: 30 fps
  - 3264x1836: 30 fps
  - 2112x1188: 60 fps
  - 1920x1080: 60 fps
  - 1408x792: 90 fps
- sensitivity:** 480 mV/lux-sec
- scan mode:** progressive
- pixel size:** 1.12  $\mu\text{m}$  x 1.12  $\mu\text{m}$
- dark current:** 12 e<sup>-</sup>/sec @ 60°C junction temperature
- image area:** 3678.336  $\mu\text{m}$  x 2767.68  $\mu\text{m}$
- die dimensions:**
  - COB: 4806  $\mu\text{m}$  x 3969  $\mu\text{m}$
  - RW: 4856  $\mu\text{m}$  x 4019  $\mu\text{m}$

## 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 and the OmniVision logo are registered trademarks of OmniVision Technologies, Inc. PureCel and PureCel-S are trademarks of OmniVision Technologies, Inc. All other trademarks are the property of their respective owners.



OmniVision