

CMOS CAMERA MODULES



your BEST camera module partner

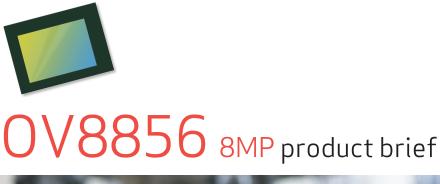
KLT-G2K-OV8856 V1.1 OmniVision OV8856 MIPI Interface Foco Fixo 8MP Módulo de Câmera



Módulo de câmara No.	KLT-G2K-OV8856 V1.1
Sensor de imagem	OV8856
EFL	2.93 mm
F.NO	2.0
Pixel	3264 x 2448
Ângulo de visão	75°
Tipo de lente	1/4 polegada
Dimensões da lente	6.50 x 6.50 x 4.62 mm
Tamanho do Módulo	14.05 x 7.80 mm
Tipo de Módulo	Foco Fixo
Interface	MIPI



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

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.





Applications

- Cellular Phones
- Tablets
- PC Multimedia

Product Features

- 1.12 µm x 1.12 µm pixel
- optical size of 1/4"
- 32.9° CRA for < 5mm Z-height
- programmable controls for frame rate, mirror and flip, cropping, and windowing

 8k bits of embedded one-time
- 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)
- programmable (OTP) memory
- image quality control: defect pixel correction, automatic black level calibration, lens shading correction and alternate row HDR

OV8856



■ 0V08856-GA4A

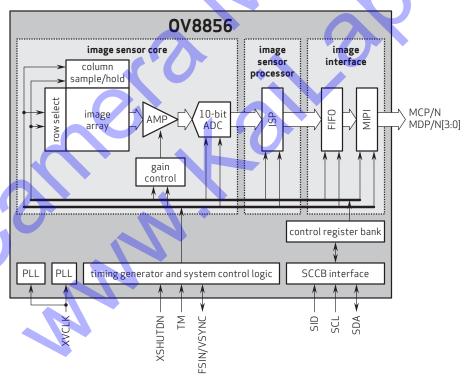
(color, chip probing, 200 µm backgrinding, reconstructed wafer with good die)

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
- standbv: 0.8 uW
- XSHUTDN: 1 µW
- 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
- 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-se
- scan mode: progressive
- **pixel size:** 1.12 μm x 1.12 μm
- dark current: 12 e⁻/sec @ 60°C junction temperature
- image area: 3678.336 µm x 2767.68 µm
- die dimensions:
- **COB**: 4806 µm x 3969 µm **RW**: 4856 µm x 4019 µm

Functional Block Diagram



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