KLT-G1MF-OV8856 V1.0
## OmniVision OV8856 MIPI Interfaccia Messa a fuoco fissa 8MP Modulo telecamera

Modulo telecamera n.	KLT-G1MF-OV8856 V1.0
Sensore d'immagine	OV8856
EFL	2.93 mm
F.NO	2.0
Pixel	3264 x 2448
Vista ad angolo	75°
Tipo di lente	1/4 pollice
Dimensioni dell'obiettivo	6.5 x 6.5 x 4.62 mm
Dimensione del modulo	23.00 x 6.50 mm
Tipo di modulo	Messa a fuoco fissa
Interfaccia	MIPI

Connettore di accoppiamento Codice. DF30FC-40DS-0.4V
Connettore di accoppiamento sulla scheda principale.Venduto separatamente.
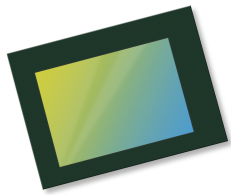
OV8856 8MP product brief

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.

OmniVision®

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
- 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
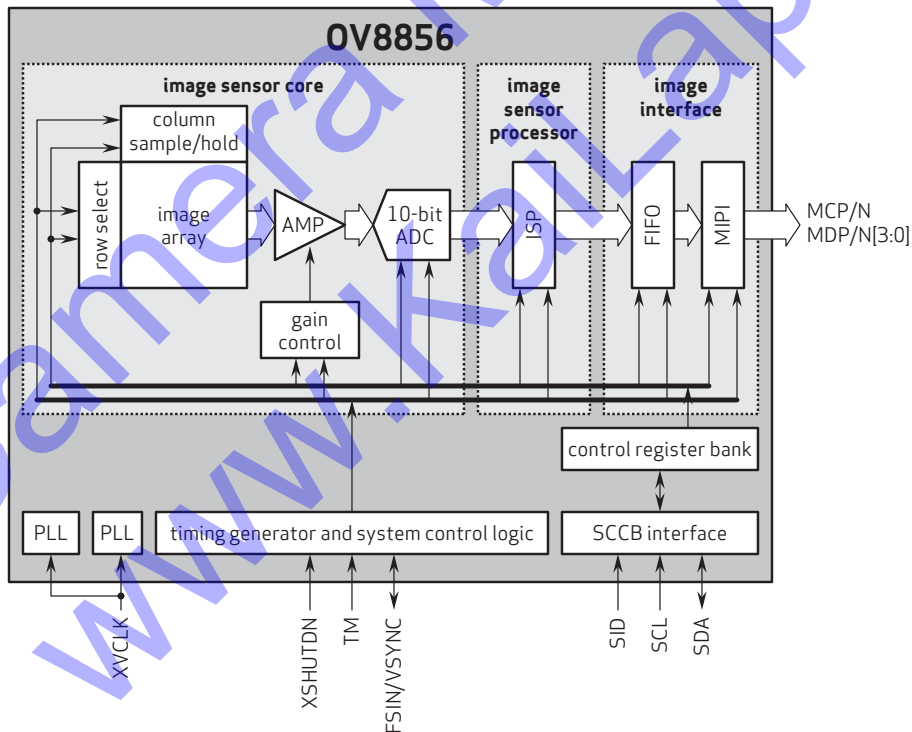
OV8856

Ordering Information

- OV08856-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
  - standby: 0.8 μW
  - 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 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 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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