



KLT-L9MF-OV13855 V1.0

OmniVision OV13855 MIPI Interfaz Foco fijo 13MP M12 Módulo de cámara

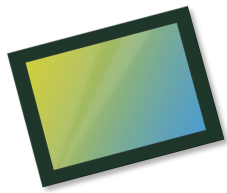


Módulo de cámara No.	KLT-L9MF-OV13855 V1.0
Sensor de imagen	OV13855
EFL	2.27 mm
F.NO	2.4
Pixel	4224 x 3136
Ángulo de visión	152°(D) 122°(H) 93°(V)
Tipo de lente	1/3.06 pulgada
Dimensiones de la lente	13.00 x 13.00 x 21.62 mm
Tamaño del módulo	40.00 x 22.00 mm
Tipo de módulo	Foco fijo
Interfaz	MIPI

N. ° de pieza del conector de acoplamiento. DF30FC-30DS-0.4V



Conector de acoplamiento en la placa principal. Se vende por separado.



OV13855 13MP product brief



13-Megapixel PureCel® Plus Sensor Brings High-End Imaging Capabilities to Mainstream Smartphones



available in
a lead-free
package

OmniVision's high performance OV13855 is a 13-megapixel PureCel® Plus image sensor designed to bring high-quality imaging to rear-facing camera applications in mainstream smartphones. It is also well-suited for front-facing and dual camera applications in high-end mobile devices. In addition to best-in-class pixel performance, this 3rd generation 13-megapixel sensor also offers advanced features such as the phase detection autofocus (PDAF).

Built on OmniVision's PureCel® Plus pixel technology, the OV13855 delivers significant improvements in low-light performance, color crosstalk reduction, and angular response, when compared with previous-generation 13-megapixel sensors. The OV13855 captures full-

resolution 13-megapixel still images at 30 frames per second (fps) and records ultra-high resolution 4K2K video at 30 fps, 1080p full high definition (HD) at 60 fps, or 720p HD at 120 fps.

The OV13855 fits in 8.5 x 8.5 mm autofocus modules with z-heights of less than 5 mm for rear cameras, and 7.5 x 7.5 mm fixed focus modules with z-heights of less than 4.5 mm for high-end front-facing cameras. The sensor is available in non-PDAF (OV13858) and monochrome (OV13355) versions for front-facing and dual camera applications.

Find out more at www.ovt.com.



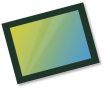
Applications

- Smartphones and Feature Phones
- Tablets
- PC Multimedia
- Wearables

Product Features

- 1.12 μm x 1.12 μm pixel
- optical size of 1/3.06"
- 33.15° CRA
- support for PDAF
- 13MP at 30 fps
- programmable controls for frame rate, mirror and flip, cropping, and windowing
- supports images sizes: 13MP (4224x3136), 10MP (4224x2376), 3MP (2112x1568), 1080p (1920x1080), 720p (1280x720), and more
- 3.3k bits of embedded one-time programmable (OTP) memory for customer use
- support for output formats: 10-bit RGB RAW
- interlaced row HDR output
- two-wire serial bus control (SCCB)
- MIPI serial output interface (1-, 2-lane, or 4-lane)
- two on-chip phase lock loops (PLLs)
- 2x binning support
- image quality controls: defect pixel correction, automatic black level calibration, and lens shading correction
- built-in temperature sensor
- suitable for module size of 8.5 x 8.5 x $\leq 5\text{ mm}$

OV13855



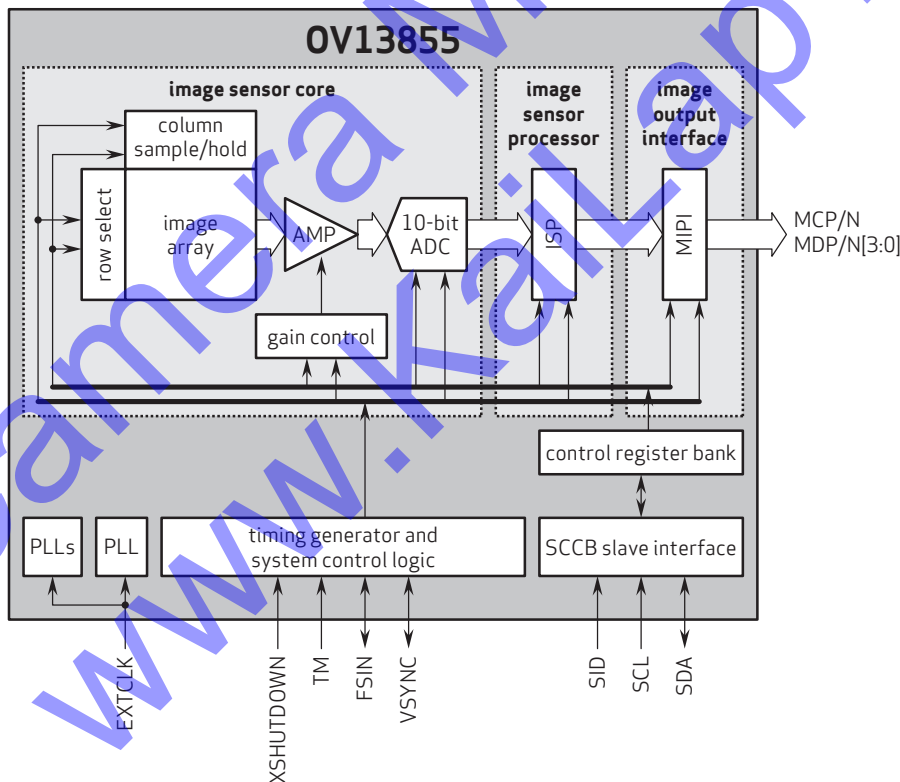
Ordering Information

- OV13855-GA5A-Z (color, chip probing, 150 μm backgrinding, reconstructed wafer)

Product Specifications

- active array size: 4256 x 3168
- power supply:
 - core: 1.14 - 1.26V (1.2V nominal)
 - analog: 2.7 - 3.0V (2.8V nominal)
 - I/O: 1.7 - 1.9V (1.8V nominal)
- power requirements:
 - active: 233 mW (based on ISP ON)
 - standby: 1 mW
 - XSHUTDOWN: $\leq 10\ \mu\text{A}$
- temperature range:
 - operating: -30°C to +85°C junction temperature
 - stable image: 0°C to +60°C junction temperature
- output interfaces: 4-lane MIPI serial output
- output formats: 10-bit RGB RAW
- lens size: 1/3.06"
- lens chief ray angle: 33.15° non-linear
- input clock frequency: 6 - 27 MHz
- maximum image transfer rate:
 - 13MP (4224x3136): 30 fps
 - 10MP (4224x2376): 30 fps
 - 3MP (2112x1568): 60 fps
 - 1080p (1920x1080): 60 fps
 - 720p (1280x720): 120 fps
- minimum exposure: 4-row
- maximum exposure: VTS-8
- pixel size: 1.12 μm x 1.12 μm
- image area: 4749.696 μm x 3535.488 μm
- die dimensions:
 - COB: 5868 μm x 4950 μm
 - RW: 5918 μm x 5000 μm

Functional Block Diagram



4275 Burton Drive
Santa Clara, CA 95054
USA

Tel: + 1 408 567 3000
Fax: + 1 408 567 3001
www.ovt.com

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