



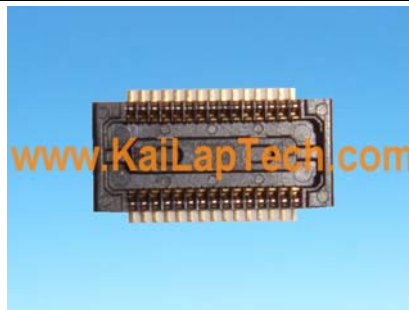
## KLT-L9MF-OV13855 V1.0

OmniVision OV13855 MIPI インターフェース 固定焦点 13MP M12 カメラモジュール

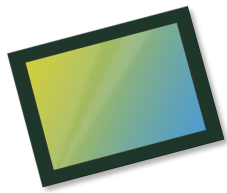


カメラモジュール番号	<b>KLT-L9MF-OV13855 V1.0</b>
イメージセンサー	OV13855
<b>EFL</b>	2.27 mm
<b>F.NO</b>	2.4
ピクセル	4224 x 3136
視野角	152°(D) 122°(H) 93°(V)
レンズタイプ	1/3.06 インチ
レンズ寸法	13.00 x 13.00 x 21.62 mm
モジュールサイズ	40.00 x 22.00 mm
モジュールのタイプ	固定焦点
インターフェース	MIPI

嵌合コネクタ部品番号: **DF30FC-30DS-0.4V**



メインボードのコネクタを接続します。 別売りされている。



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



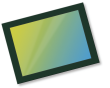
## Applications

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

## Product Features

- 1.12  $\mu\text{m}$  x 1.12  $\mu\text{m}$  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 <math>5\text{ mm}</math>

# OV13855



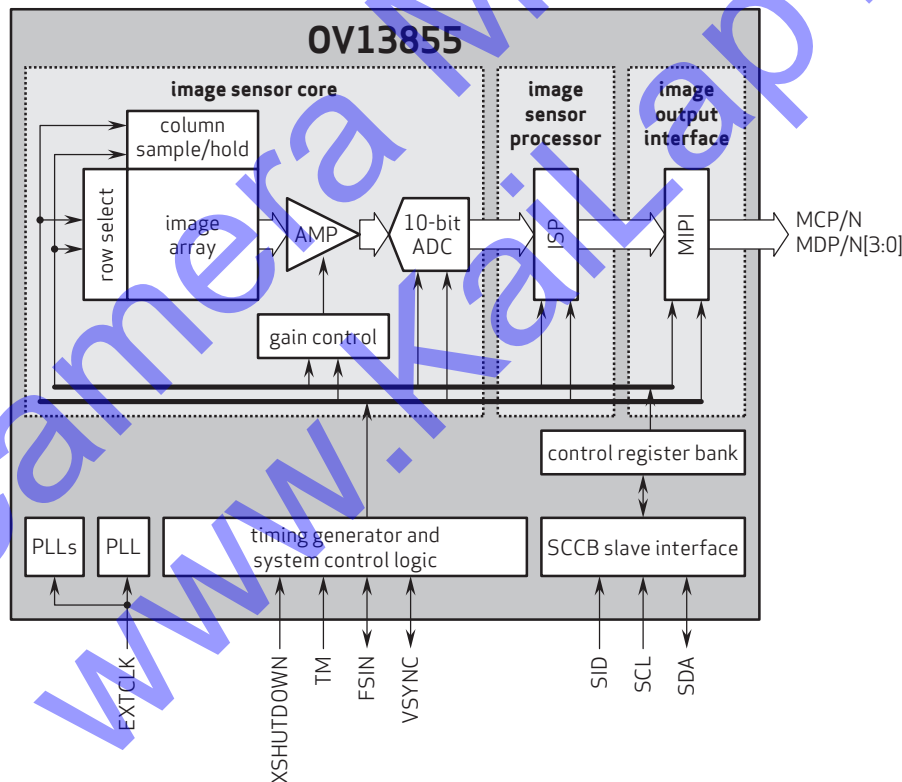
## Ordering Information

- OV13855-GA5A-Z (color, chip probing, 150  $\mu\text{m}$  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: <math>10\ \mu\text{A}</math>
- 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  $\mu\text{m}$  x 1.12  $\mu\text{m}$
- image area: 4749.696  $\mu\text{m}$  x 3535.488  $\mu\text{m}$
- die dimensions:
  - COB: 5868  $\mu\text{m}$  x 4950  $\mu\text{m}$
  - RW: 5918  $\mu\text{m}$  x 5000  $\mu\text{m}$

## 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, the OmniVision logo, VarioPixel and PureCel are registered trademarks of OmniVision Technologies, Inc. OmniBSI is a trademark of OmniVision Technologies, Inc. All other trademarks are the property of their respective owners.



OmniVision