

CMOS CAMERA MODULES



your BEST camera module partner

KLT-B3MF-OV2680 V2.1

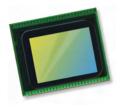
OmniVision OV2680 MIPI Interface Foco Fixo 2MP Módulo de Câmera



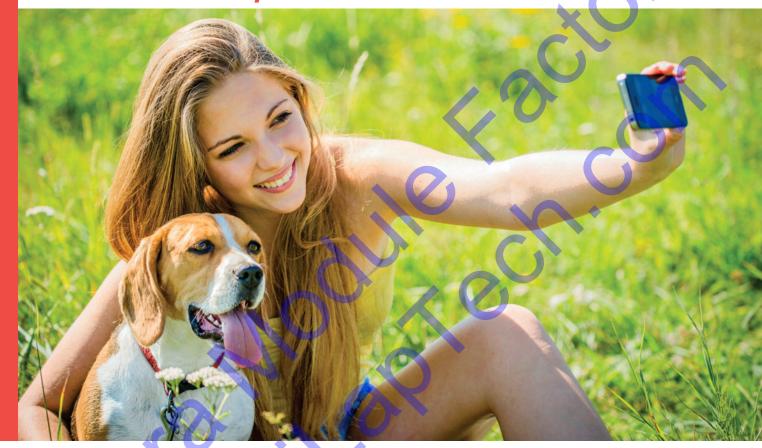
| Módulo de câmara No. | KLT-B3MF-OV2680 V2.1 |
|----------------------|-----------------------|
| Sensor de imagem | OV2680 |
| EFL | 2.32 mm |
| F.NO | 2.2 |
| Pixel | 1600 x 1200 |
| Ângulo de visão | 75.1° |
| Tipo de lente | 1/5 polegada |
| Dimensões da lente | 6.50 x 6.50 x 4.03 mm |
| Tamanho do Módulo | 20.00 x 6.50 mm |
| Tipo de Módulo | Foco Fixo |
| Interface | MIPI |



www.KaiLapTech.com sales@KaiLapTech.com Tel: (852) 6908 1256 Fax: (852) 3017 6778



0V2680/0V2685 2MP product brief





available in a lead-free package

Cost-Effective, Low-Power 2-Megapixel Sensors for Feature Phones, Smartphones and Tablets

The OV2680 (RAW) and OV2685 (SoC) are costeffective, low-power 2-megapixel CameraChip™ sensors for feature phones and front-facing camera applications in smartphones and tablets. The 1/5-inch sensors leverage a 1.75-micron OmniPixel3-HS™ pixel to deliver high quality 2-megapixel images and video at 30 frames per second (fps). The sensors' high sensitivity and low dark current deliver exceptional image and video quality, even in low-light conditions.

The OV2680 and OV2685 are cost-effective upgrade solutions to the OV2659 & OV2675 CameraChip sensors with a smaller footprint and smaller die size.

Compared to previous generations, the OV2680 and OV2685 offer improved image quality with the latest OmniPixel3-HS pixel architecture. Using OmniVision's proprietary sensor technology, both sensors reduce or eliminate common lighting and electrical sources of image contamination, such as fixed pattern noise, smearing, etc., to produce a clean, stable, color image.

The OV2680 and OV2685 both feature a single-lane MIPI interface, which allows for a simple design with modern basebands.

Find out more at www.ovt.com.



Applications

- Ultrabooks
- PC Multimedia
- Games
- Home Entertainment
- Cellular and Picture Phones
- Tablets
- Toys

■ 0V02680-H47A (color, lead-free, 47-pin CSP5) ■ 0V02685-H53A (color, lead-free, 53-pin CSP5)

Product Features

- one clock lane) with a maximum of 750 Mbps data transfer rate
- support for output formats: 0V2680: 10-bit RAW RGB
 - 0V2685: 10-bit RAW RGB, 8-bit YUV
- programmable controls for frame rate, mirror and flip, cropping, and windowing auto black level calibration
- low operating voltage and low power consumption for embedded portable applications
- supports global analog gain

- MIPI and D-PHY specification (contains high sensitivity and low dark current for low-light conditions
 - supports free-running clock and gated clock
 - supports down-sampling and binning mode

 - defect correction capability
 - supports horizontal and vertical subsampling

Product Specifications

- active array size: 1616 x 1216
- power supply:
- **0V2680** core: 1.58V ±3%
- 0V2685 core: 1.7 1.9V analog: 2.6 3.0V I/0: 1.7 3.0V

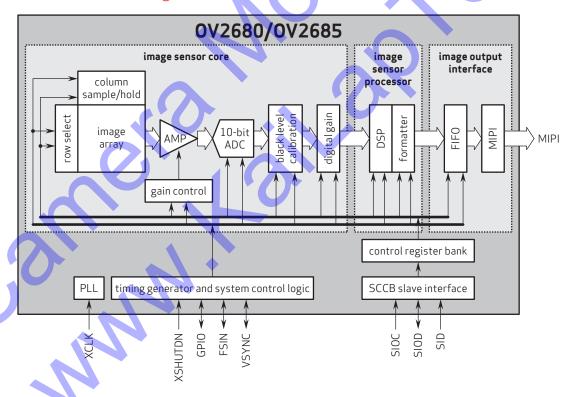
- power requirements: OV2680 active: 123 mW
- OV2685 active: 259 mW
- XSHUTDN: <1 μA
- temperature range: operating: -30°C to +85°C junction
- temperature
- stable image: 0°C to +50°C junction
- output formats: 10-bit RGB RAW, 8-bit YUV (0V2685)

■ lens size: 1/5"

OV2680/OV2685

- lens chief ray angle: 28.5° non-linear
- input clock frequency: 6 27 MHz
- maximum image transfer rate: 30 fps
- scan mode: progressive
- maximum exposure interval: 1 frame - 4 t_{ROW}
- **pixel size:** 1.75 μm x 1.75 μm
- image area: 2840 μm x 2150 μm
- package/die dimensions: 0V2680 CSP5: 4180 μm x 3480 μm 0V2685 CSP5: 4454 μm x 4014 μm

Functional Block Diagram



4275 Burton Drive Santa Clara, CA 95054

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 VarioPixel are registered trademarks of OmniVision Technologies, Inc. The OmniVision logo and OmniPixel3-Hs are trademarks of OmniVision Technologies, Inc. All other trademarks are the property of their respective owners.

